Understanding
the
Digital World

User-Created-Content: Supporting a participative Information Society

Final Report

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1. Introduction

1.1. Background of the study

This study takes place in the context of the i2010 mid-term review. Its particular focus on the user perspective on the one hand and the potential for User-Created Content to support creation and innovation on the other hand has made it necessary for the European Commission to launch a prospective study on the roll-out of UCC and its economic, social, technical and legal challenges.

User Created Content as such is not a new phenomenon. Content generated by individuals or groups of individuals already exists as leaflets, brochures and other forms of paper output. Similarly, the possibilities for users to access radio and/or television services have been made possible by both technological developments and regulation. Several member states introduced community media, either with a traditional broadcasting format or by using an open/direct access model such as the "offenere Kanäle" in Germany.

The differences lies in the scale, economic potential and impact on traditional supply chains of modern user created content. The creation of new networks, in particular the introduction of the Internet, has created new opportunities for users to create, but more importantly, to distribute content. During the first development phase of the Internet, most content was still produced and distributed in line with the old, rather centralised, broadcasting model. Today's Internet contains more and more content generated by individuals or groups of individuals. Some consider this trend of user generated/created content to be one of the most essential elements of what is called the "Web 2.0". A range of new business models is being developed and tested that operates on the basis of user created content. This content includes video- or audioclips, blogs and photos. Although the fixed Internet is used as the main distribution network, creation and distribution is also expanding into wireless environments (and some wireless environments – i.e. mobile networks - have their own specific form of user created content).

Consequently, there are at least five reasons why user created content is relevant to European policies and coherent with i2010 main objectives:

- First of all, the amount of user created content is growing quickly and is starting to become a substitute for other non user created content, such as traditional broadcasting content. The economic impact of user created content is therefore increasing.

- The traditional publisher model is not applicable to UCC. Users can bypass traditional intermediaries and seek alternative ways to distribute their content. At the same time, technological developments lower the entry barriers for participating actively. A new generation of active, participating users challenges traditional media policies that still depart from the concept of the passive user and the predominant role of government policies to safeguard his/her interests.

- New intermediaries are influencing the market (of user created content as well as traditional media markets) by offering and exploiting platforms that largely rely on user created content (i.e. YouTube, Flickr). These new players enter into competition with established players (i.e. broadcasters, music publishers, etc.).

- Existing regulatory frameworks are primarily based on:
    - centralised models and
    - large(r) and incorporated market players.

- The proliferation of user created content as the basis for a whole range of new business models in the information economy challenge existing regulatory schemes. Resulting uncertainties, gaps in legal protection, imbalances or administrative burdens and inappropriate remedies are obstacles to the creation and distribution of user created content.

- With UCC, more private content becomes semi-private or public (i.e.: material posted on blogs, personal videos etc.). This creates/reinforces privacy issues.

All these reasons lead the European Commission to launch an in-depth analysis of the growing UCC phenomenon.

1.2. Scope and objectives of the study

The objective of the study was threefold:

- To analyse the developments taking place in the field of user-created content,
- To assess their economic, social, technical and legal implications, and
- To consider how these affect EU policies in the field of ICT and media.

The study should be based on an extensive and forward-thinking analysis of existing and emerging types of user-created content.

It should:

- Propose a detailed classification of different categories of user-created content.
- Compile statistical and market data from existing sources on usage and market perspectives in Europe and in the most advanced countries in the world.
- Investigate the new usage patterns, value chains and business models supporting the creation and distribution of the different categories identified.
- Analyse the opportunities, as well as the economic, social, technical, and legal implications arising from the development of each category of user-created content from the perspective of the different groups of stakeholders concerned, of which the users, the traditional content providers, the user-created content platforms, the creator and copyright holders, the network operators and ISPs, the consumer electronics and IT service providers, search engines, advertising companies, and collecting societies.
- Reflect on the economic, social, technical and legal challenges to be addressed to ensure that the development of user-created content supports the achievement of the different EU policy objectives in the field of ICT and media.
- Provide recommendations on the best way to address the different challenges identified, taking into consideration the existing EU policies and regulations affecting the development of user-created content, as well as policy and regulatory developments taking place in other parts of the world.

In the context of this study, the European Commission has chosen a definition of UCC largely based on the definition proposed by the OECD[1]. User-created content thus refers to content made publicly available through telecommunication networks, which reflects a certain amount of creative efforts, and is created outside of the professional routines and practices. But the definition given by the European Commission differs from the one from the OECD in the following aspect: it does not deal only with content made publicly available on the Internet but with content made available through any telecommunication network and platform.

The analysis should cover Europe and the most advanced countries in the world, in particular the USA, Japan and South Korea.

This document presents the full results of the works conducted by a consortium comprising IDATE, the Institute for Information Law (IViR) and TNO.

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[1] Participative Web: User-Created Content; DSTI/ICCP/IE(2006)7/FINAL; 12 April 2007: "Content made publicly available on the internet, which reflects a certain amount of creative effort, which is created outside of professional routines and practices".

2. Methodology

2.1. Description of the overall methodology deployed throughout the study

The methodology proposed by the consortium relies mainly on desk researches and interviews with the stakeholders. Desk researches and interviews have been conducted between April and August 2008.

Some literature already exists in the field of user-created content and has been collected by the consortium and used as a basis throughout the mission. In particular it has helped us in structuring the global reasoning, establishing an UCC services' classification, identifying the potential case studies and interviews, drawing up a preliminary analysis on drivers, implications and obstacles, analysing the existing EU legal framework.

The 50 case studies have been elaborated on the basis of information collected from the web sites of the companies as well as from the press and some dedicated web sites. They provide a rich and broad catalogue of all kinds of UCC services currently existing, already interesting in itself. The huge amount of information thus gathered has largely fed the assessment of the UCC market as well as the business models' analysis.

Around 52 interviews (face to face and phone interviews) have also been conducted during the mission. They have mainly been used for a better understanding of potential drivers, implications and obstacles. But they have also contributed to refine the forecasts and have provided some helpful indications for the identification of legal and policy issues as well as for the formulation of policy recommendations.

Basically, the work has been shared out among 4 work packages, closely interrelated:

- WP1 has been dedicated to:
    - The definition of an UCC services' classification;
    - The creation of 50 case studies;
    - The compilation of market data and the elaboration of market forecasts (UCC assessment);
    - The business models' analysis.
- WP2 has been dedicated to:
    - The exploration of drivers of, implications and obstacles to the different types of UCC;
    - The realization of 80 interviews with the stakeholders.
- WP3 has been dedicated to:
    - The analysis of selected aspects of the existing EU legal framework with regard to UCC;
    - The indicative analysis of the terms of use of some major user-created content services in Europe;
    - The concise overview of the most important co- and self regulatory measures for the UCC sector;
    - The identification of legal uncertainties which can potentially hinder the development of UCC;
- WP4 is dedicated to:
    - The organisation of a workshop in Brussels with a representative set of stakeholders in order to present and validate the major findings of the study;
    - The aggregation/consolidation of the results of the study and the formulation of concrete policy recommendations.

2.2. List of case studies

While elaborating this list of case studies, our main concern was to find the right balance between:

- Services representative of all natures of content;
- Services representative of all kinds of role that the user can play;
- Services representative of all types of content;
- Services representative of all social aspects;
- Services representative of all economic aspects;
- Services representative from a geographical point of view (Western Europe, Eastern Europe, Southern Europe, Nordic countries, North America, Japan and Korea).

Moreover, we also put the stress on innovative UCC services.

Among the following list, at least one case study is representative of each of these criteria. That is to say that we identified at least one service for each possible nature of content, one for each kind of role, one for each type of content, one for each social aspect, one for each economic aspect and one for each geographical region. However, it proved to be difficult, if not impossible, to provide a perfectly balanced list of case studies taking into account all these considerations, in particular because innovation comes mostly from some specific regions like the United States and because some natures of content, like video, are more widely spread than others.

So we decided to highlight innovative services (possibly at the expense of other criteria like geographical representation) and to favour the presence of services based on appealing and successful contents (since they play a major role in the appropriation of UCC services by users).

Table 1: List of the 50 case studies

	Name of the service	Type of service	Brief description	Localization
1	DailyMotion www.dailymotion.com	Video sharing site	Free video hosting website that enables users to access, view, upload, store, share and comment upon their personal videos.	France and 20 countries
2	Neogen.tv http://video.neogen.ro/	Video sharing site	Romanian video sharing site	Romania
3	Pandora.TV www.pandora.tv	Video sharing site	Leading video sharing site in South Korea. One can create, upload and share own videos and can also run own live video programs/shows. Viewing videos or its own personal TV station is possible over the Internet and the mobile network.	South Korea
4	Tuclip www.tuclip.com	Video sharing site	A video sharing service developed by the Spanish commercial channel Antena 3	Spain
5	Flickr www.Flickr.com	Photo sharing site	The site was designed as a social application, geared to creating networks of users thanks to tags, and to the blogs affiliated with each group. Flickr launched geotagging: users can associate their photos with maps, and access other photos from the maps. Each photo can be accompanied by information on the location where the picture was taken.	USA
6	Fotosik www.fotosik.pl	Photo sharing site	Polish equivalent of Flickr	Poland
7	Photobucket http://photobucket.com	Photo sharing site	Photobucket is used for personal photographic albums, remote storage of avatars displayed on Internet forums, and storage of videos.	USA

	Name of the service	Type of service	Brief description	Localization
8	Cyworld www.cyworld.com	Social network	Web community site operated by SK Communications. The main feature of Cyworld is the service called minihompy, which combines a photo gallery, message board, guestbook, video, and personal bulletin board. Blogger's avatar lives in the "miniroom" in which items can be bought thanks to Cyworld money called "dotori".	South Korea
9	Dada http://it.dada.net	Social network	Italy's largest social network, Dada is a fixed and mobile Internet community built around blogs and text-messaging	Italy
10	Islandoo www.islandoo.com	Social network	One of the first U.S. based social networking site set up specifically for particular program: where people can audition for the popular series "Shipwrecked". The most popular community members become candidates in this reality TV show	USA
11	LunarStorm www.lunarstorm.se	Social network	Most popular social networking site in Sweden. Includes profiles, chatting functionality, uploading of pictures and video. Recently added more advanced privacy enhancing features	Sweden
12	MySpace www.myspace.com	Social network	The globe's largest social network with a particular focus on discovering new musicians and groups. The site allows independent groups to sell their songs in MP3 format directly to other members, and this with no copy protection.	USA
13	Serious Talent www.serioustalent.nl	Social network	Dutch talent development social networking site of public broadcaster for starting musicians. Popular community members win wildcards to National Pop Event and airtime on radio	Netherlands
14	LibriVox http://librivox.org	Audiobooks	LibriVox is a digital library of free public domain audiobooks, read by volunteers. Recordings are available in over twenty-one languages	Canada
15	Wikipedia www.wikipedia.org	Knowledge sharing/ Collaborative work	Most popular on-line encyclopaedia worldwide. Includes a strict social hierarchy in moderating and editing, controversy over identity revealing of members that edited pages to their own benefit. Insecurity over business model as foundation behind the service is dependent on donations.	USA and global (more than 200 languages)
16	RocWiki http://rocwiki.org	Knowledge sharing/ Collaborative work	The People's guide to the city of Rochester, New York. This site is updated, expanded, and improved by people in Rochester, NY to share what they love or loathe about their city.	USA
17	Wer.weiss.was www.wer-weiss-was.de	Knowledge sharing	Free knowledge sharing site. Registered users can address specific questions to experts by e-mail. Each user classifies his own degree of expertise.	Germany
18	Wikilengua www.wikilengua.org	Knowledge sharing / Collaborative work	Collaborative site on the usage of the Spanish language, with a practical orientation. Registration is necessary for contributing but not for reading.	Spain
19	Agora Vox www.agoravox.fr	Citizen journalism	French citizen journalism site. 70% of revenue generated by advertising, the remainder from the resale of editorial content	France
20	OhmyNews www.ohmynews.com/	Citizen journalism	A South Korean citizen journalism site, now international, ranking among the top sites of this type	South Korea

	Name of the service	Type of service	Brief description	Localization
21	Skoeps www.skoeps.nl	Citizen journalism	Popular Dutch citizen journalism site set-up by publisher PCM and Talpa, which consists entirely of eyewitness images. People capture news events with their phones and send the pictures or videos directly to Skoeps.nl. Active in several African countries as well as China, in 2008 introducing the service into European countries	Netherlands
22	Habbo Hotel www.habbo.com/	Virtual world	European branch of global virtual world (each member has own hotel room), popular with young teenagers. Users can build their own character, furniture and room, join virtual events etc	
23	VirtualMe www.virtualme.com	Virtual world	Virtual reality TV gaming platform created by Endemol and Electronics Arts. Users create their avatars from their real appearance, but can modify it, and participate to real TV shows like Big Brother or Star Academy.	USA / Netherlands
24	SecondLife http://secondlife.com/	Virtual world	Second Life® is a 3-D virtual world entirely created by its Residents. They can buy, sell and trade with other Residents thanks to inworld unit of trade, the Linden™ dollar, which can be converted to US dollars.	USA and global
25	Machinima www.machinima.com	Video games	Online entertainment network showing original videos from the favourite video games. Possibility to watch trailers, gameplay, montages, music videos and original machinima series and movies created in World of Warcraft, Halo, Sims 2, GTA, Battlefield, Counterstrike, etc., as well as to learn how to make machinima videos by collaborating with others via forums	USA
26	WeGame www.wegame.com	Video games	A media sharing platform for gamers, in public beta since January 2008	USA
27	Kongregate www.kongregate.com	Video games	Kongregate is a social games website. It allows visitors to play games, and create and share games with members	USA
28	Last.fm www.last.fm	Music recommendation	The world's largest social music platform. By using each user's musical profile, Last.fm proposes personalised recommendations, allows to create personal music charts automatically, connects users who share similar tastes, provides custom radio streams	UK
29	Deezer www.deezer.com	Music recommendation	French free Internet-based music-on-demand service. Deezer offers on-demand ad-supported streaming, with a portion of the ad revenue being delivered to content partners.	France
30	LibraryThing www.librarything.com	Book recommendation	Social cataloging web application for storing and sharing personal library catalogs and book lists.	USA
31	Biblioteket.se http://biblioteket.se	eBook recommendation	The "social library web" = National project to connect government libraries in Sweden. Online service that let users browse library archives, download books, leave user reviews on books and papers. Books and magazines available in several languages.	Sweden

	Name of the service	Type of service	Brief description	Localization
32	Manuscrit www.manuscrit.com	Talent Search – Writing	Le Manuscrit Publisher aims at making writing more democratic and supports the circulation of knowledge. It provides interactive information about literary and cultural life (interviews, podcasts, press review etc). It collects around its diverse authors, readers, active partners and web based blog communities to encourage networking and cultural exchanges.	France
33	Lulu www.lulu.com	Talent Search – Writing	Lulu is a printing company. In addition to printing it also offers online order fulfilment. The creator retains copyright. Optional services include ISBN assignment and distribution of books to book retailers who make specific requests. Electronic distribution is also available.	USA
34	SellaBand www.sellaband.com	Talent search - Music	Sellaband is a music website which allows bands to raise the money to record a professional album. Bands are required to set up a profile and upload some of their music to attract "Believers". Any band that is able to sell 5,000 "parts" can then record and promote an album. Parts are sold at 10 USD each.	Germany
35	Blurb www.blurb.com	Talent search – Photos, artwork, text	Blurb is a creative book publishing platform that lets users make, share, market, and sell real books. Blurb produced nearly 90,000 unique titles in 2007.	USA
36	Backstage http://backstage.bbc.co.uk	Talent Search – Video	Developer/designer network launched by the BBC, in order to encourage innovative use of the content across bbc.co.uk and the BBC News Website and to identify new talents	UK
37	KijkmijTV/ SeeMeTV http://seemetv.spaces.live.com	Talent Search – Video	Dutch variation of SeemeTV by Vodafone UK. Service where people can upload their content in different genres. Uploaders share in revenues if clip becomes popular. Leans on peer recommendation. Failed in the Netherlands, still popular in the UK	Netherlands / UK
38	MTV Flux www.mtv.co.uk/channel/flux	Talent Search – Video, music, text, etc.	Different services in Europe, including on-demand channel MTV Flux where people can vote for UGC videos that will be broadcasted; Virtual MTV which hosts a number of Second Life like virtual worlds based on MTV series such as the Hills; Quizilla, a teenage website to share poetry, quizzes and song lyrics, and neopets, a website for children where they can create their own pets. MTV Flux stopped in 2008	UK mainly
39	Ziddio www.ziddio.com	Talent Search - Video	A user-generated video platform developed by Comcast. Contests are organised. Best rated contents are also made available on Comcast's VOD service and will soon be distributed through mobile	USA
40	Zizone www.zizone.tv	Talent Search - Video	Dutch service set up by cable operator Ziggo, where people can upload their UGC with the chance it will be broadcasted on television. Contest/event driven website targeting a national audience	Netherlands
41	Fame TV www.fametv.com	Video sharing on the TV set	Viewers that submit content receive a share of revenue: 0.10 GBP per "vote" received. Viewers have their own tag that appears on screen every time they interact by SMS or MMS, allowing them to communicate with others while watching.	

	Name of the service	Type of service	Brief description	Localization
42	TV Perso http://adsl.free.fr/tv/tvperso/	Video sharing on the TV set	A video sharing service developed by the French ISP Free directly available on the TV set. Uploading is possible via the Freebox. The access to the content is limited to the "Freenautes" community	France
43	Perso TV http://www.mobibase.com/onetv/persotv/	Mobile specific services	A mobile user generated content channel developed by Mobibase and available within One TV, a mobile TV bouquet distributed by Orange (and soon by SFR and Bouygues Telecom). A subscription fee is needed	France
44	Mobango www.mobango.com	Mobile specific services	A content sharing mobile community service present in Italy, Germany and in the UK.	Italy, Germany, UK
45	ShoZu www.shozu.com	Mobile specific services	Technology tools enabling users to get content on and off the phone. It can be any kind of content, and it all transfers invisibly in the background, without the need to open a browser or interrupt normal phone use	UK
46	Betavine www.vodafonebetavine.net	Mobile specific services	An open community & resource website, created and managed by Vodafone Group R&D, for the mobile development community to support and stimulate the development of new applications for mobile and Internet communications. The Betavine website allows developers to upload and profile their alpha-stage and beta-stage applications, provides interaction tools for members to share knowledge and give feedback on apps, and discuss topics in mobile.	Germany
47	Qik http://qik.com	Live mobile video site	Qik is a piece of software that enables to stream videos directly from a phone to the Web. Videos can be streamed live on a blog or recorded on the profile page of the user.	USA
48	Mister Wong www.mister-wong.com	Social bookmarking	Social bookmarking site, more popular than del.icio.us in Germany	Germany
49	Threadless http://www.threadless.com	Content ranking	Members of the Threadless community submit t-shirt designs online which are put to a public vote. A small percentage of submitted designs are selected for printing and sold through an online store. Creators of the winning designs receive a prize of cash and store credit	USA
50	FixMyStreet www.fixmystreet.com	Government 2.0	FixMyStreet is a civic site to help people report, view, or discuss local problems they've found (anything from graffiti to unlit lampposts and from abandoned beds to broken glass on a cycle path) to their local council by locating them on a map.	UK

Source: IDATE

Table 2: Geographic representation of the case studies

	North America	Japan & South Korea	Western Europe	Southern Europe	Nordic countries	Eastern Europe
Video sharing		Pandora.TV	DailyMotion	Tuclip		Neogen.tv
Photo sharing	Flickr Photobucket					Fotosik
Social network	Islandoo MySpace	Cyworld	Serious Talent	Dada	LunarStorm	
Knowledge sharing/ Collaborative work	Wikipedia RocWiki		Wer.weiss.was	Wikilengua		
Citizen journalism		OhmyNews	AgoraVox Skoeps			
Virtual World	VirtualMe SecondLife		VirtualMe		Habbo Hotel	
Video Games	Machinima WeGame Kongregate					
Recommendation	LibraryThing		Last.fm Deezer		Biblioteket.se	
Talent Search	Ziddio Blurb Lulu		Manuscrit Sellaband Backstage KijkmijTV/SeeMeTV MTV Flux Zizone			
Social bookmarking			Mister Wong			
Mobile specific services	Qik		Perso TV Mobango ShoZu Betavine	Mobango		
UCC service on the TV set			Fame TV TV Perso			
Audiobooks	LibriVox					
Content ranking	Threadless					
Government 2.0			FixMyStreet			

Source: IDATE

2.3. List of interviews

Table 3: List of the 55 interviews

AFP	Frank Alsema	Myvideo (SBS)
AgoraVox	Frankwatching	Neogen
Akamai	Freshnetworks (Freshminds)	Netlog
Alain Bensoussan Avocats	Garage TV	News corporation
andUNITE	Geenstijl	OECD
BBC	Google (Youtube)	Orange
Brainsonic	Habbo Hotel (Sulake)	Red Chocolate (GoSupermodel)
British Telecom	Havas Digital	RIA Novosti
Buma/Stemra	IJsfontijn	RTL Netherlands
Charlie Becket	Khaeon Games	ScreenTonic
Cory Doctorow	Lagardère Active	Skyrock
Dailymotion	Lego	Swinxs
Endemol	Livejournal	Telecom Italia
e-TF1 / WAT	Marketingfacts	Telekom Austria
European Federation of Magazine Publishers	Mediaedge:cia	Twingly
European Newspaper Publishers' Association	Mobibase	William Dutton
Eyeka	Moshi Monsters (Mind Candy)	WoZZon
Federation of European Publishers	MySport	

Source: TNO

3. Definitions

3.1. Preliminary comments

The UCC classification proposed by IDATE, TNO and IViR is based on a content and user approach as opposed to a platform or service approach.

Our main concern when elaborating this classification has been to characterize the content itself and the intentions of the content creator rather than the kind of services, platforms or tools relying on UCC or favouring the creation, development and sharing of UCC.

The choice of this user-based approach seems to us more coherent with the objectives of this study and with the kind of problems we have had to tackle with throughout the study. Actually, so as to identify the drivers of, the implications and the obstacles to UCC and to propose concrete recommendations, we think that this approach provides better lessons and help to draw up more useful conclusions than a platform-based approach.

This user-centric approach provides us with a robust analysis framework on which we have based our understanding of what could prevent an individual to consume UCC services and/or to create and publish his own content and what could encourage him to participate and contribute actively to this new participative Information Society.

3.2. Scope of UCC & Nature of content

This classification covers all kinds of content on which an individual can play an active and possibly creative role.

By "active role", we mean that an individual can create, modify, aggregate and/or publish content, whatever the nature of the content.

"**Creation**" implies that a totally new original content is elaborated.

"**Modification**" and "**aggregation**" implies that a new content is elaborated, partially or totally based on existing contents.

"**Publishing**" corresponds to the release of existing content.

Even if rating (including ranking and voting) and recommendation roles are not in the core of our study, we have also taken into consideration these possible roles, as they might be of interest for our global analysis.

In terms of nature of content, all kinds of content possibly created / modified / aggregated / published / rated / recommended by an individual have been considered. In particular, the classification covers the following contents (not exhaustive):

- **Video**
- **Photo / image / drawing / painting**
- **Music**
- **Audio (other than music)**
- **Text**
- **Games (in particular video games)**
- **Virtual objects.**

Moreover, are covered content developed for private purposed as opposed to content developed within a company.

Nature of content and the role played by the user has not been used as criteria for the elaboration of the classification, since we estimate that they are not discriminating criteria in the respect of the objectives of the study.

3.3. Criteria used for the classification

Our classification is based on the three following criteria:

- Type of content;
- Social aspect;
- Economic aspect.

The criterion "**Type of content**" refers to the level of editorialisation/ scenarization of content *by the creator*. This criterion establishes a distinction between a personal content (with no real added value. It is a kind of "rough" content not specifically created to be shared out) and a content elaborated in a way to "tell a story" to other people.

It covers the two following aspects:

- **Personal**: refers to content developed without editorial views (example: souvenir photos);
- **Story telling**: refers to content developed with editorial views (example: online photo album integrating comments, music, etc.).

The criterion "**Social aspect**" refers to the level of sharing of the content wanted by the creator. This criterion is clearly linked to the main characteristics of UCC and Web 2.0: sharing and the sense of community.

It covers the two following aspects:

- **Happy Few**: refers to a restricted access to content. The creator appoints the people who will be authorized to access the content.
- **Large/Open access**: refers to a large or totally open access to the content, that is to say that every people having access to the service (either through a registration process or not) will be able to access the content.

The criterion "**Economic aspect**" refers to the possibility for the creator to earn money or not thanks to his content. This criterion is designed to evaluate the ability of the so-called participative Web to develop an economy not only for UCC platforms and services, but also for the users/contributors themselves.

It covers the two following aspects:

- **Revenue**: when it is possible for the creator to earn money (even if it is not systematic);
- **No revenue**: when it is not possible for the creator to derive revenue from his creation (even if the UCC service could earn money thanks to this content).

All these criteria apply whatever the nature of content (video, photo, music, text, etc.) and the role of the user/creator (creation, modification, aggregation, publishing, etc).

3.4. Presentation of the classification

By crossing these criteria, we reach the conclusion that six combinations were possible. The following table and figure present the six possibilities.

Table 4: Principles of UCC classification

Type of content	Economic		Social		Examples	Category name
	Revenue	No revenue	Happy Few	Large/ Open access		
Personal		✓	✓		Souvenir photos	Private Content
		✓		✓	Funny videos	Personal Content
Story telling		✓	✓		Wedding book	Stories for my friends
		✓		✓	Collaborative work	Enlightened amateur
	✓		✓		Book in commemoration of a specific event	Limited series
	✓			✓	Mini series	Semi-pro

Source: IDATE

Figure 1: Main characteristics of the UCC categories
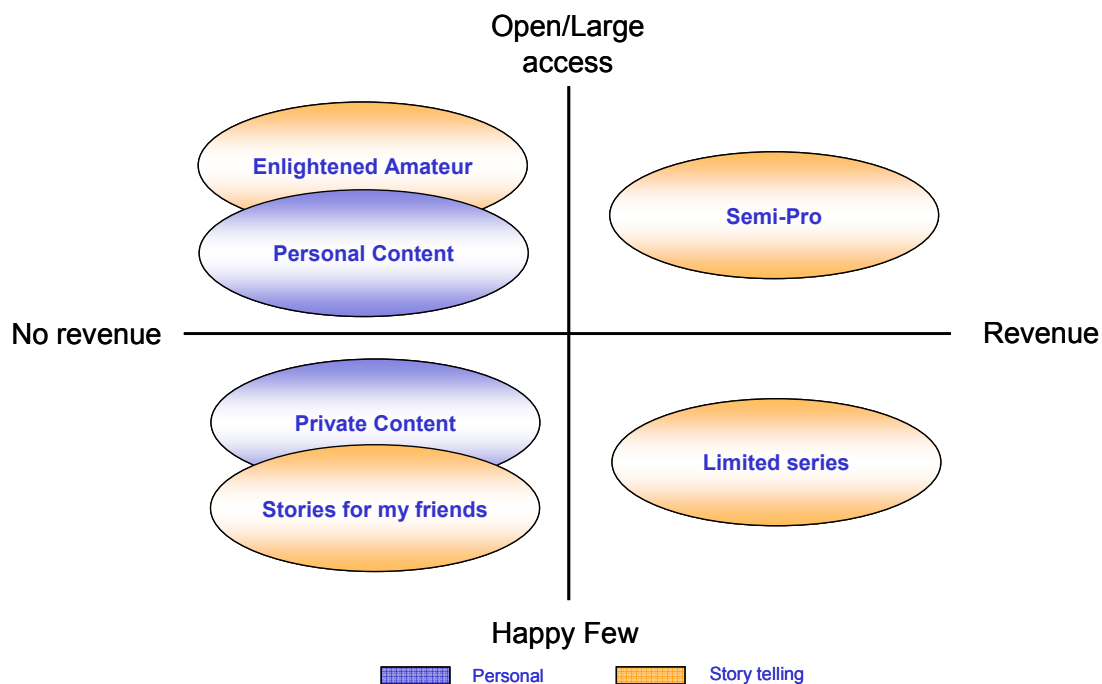
Source: IDATE

PART I – Market analysis

1. Assessment of the UCC market

1.1. Preliminary comments

The assessment of the UCC market in terms of effective usages, of adoption by people, of revenue or in terms of direct impacts on other related sectors proved to be difficult at the European scale for several reasons:

- First of all, **there is no single and common definition of user-created content**. The concept is either referred as "user-created content" or "user-generated content" or "amateur content", etc., or is analysed as being part of a larger concept which could be the one of "Web 2.0" or the "Internet 2.0", the "participative web", "the social Internet" or the "social media platforms". Consequently, when data are available, they cannot be compared since they cover various realities.

- **Quite few surveys are publicly available on the specific subject of UCC**. When they exist, their geographic scope is frequently limited to one country or to a restricted set of countries, preventing from drawing a wide picture of the spread of UCC adoption throughout the European Member States.

- **The existing surveys mainly focus on basic indicators** such as "number of Internet users belonging to a social network" or "number of Internet users having created their own blog". These surveys are of course useful for assessing the level of adoption of UCC services among Internet users. Having said this, no or little precise data are available, in particular regarding the contribution to talent search services, the amount of new content created by individuals, the social or societal impacts or the direct impacts on the rest of the value chain players.

- **The existing surveys concern quasi exclusively UCC services available on the fixed Internet**. The other way of accessing UCC services are seldom covered. In particular, data on mobile UCC are rarely disclosed. However, it is true that, even if people interviewed during this study agree on the fact that mobile broadband will be the future of the UCC services, for the moment, the UCC phenomenon is still closely linked to the fixed Internet.

- **The volume of unique content stored on UCC platforms is also impossible to appraise**:
  - On the one hand, because *the same content could be upload on various platforms*: how to count the same content only once?
  - On the other hand, because *UCC, lawful and unlawful professional content could be found on the same site*: how to evaluate the proportion of amateur, legal professional and illegal professional content?

- **Revenues directly generated by UCC cannot be known**. Data for UCC platforms revenues are barely available. Even for very well-known UCC websites, data regarding the turnover or the profit are not made public. Only estimates could be found for some of them. But even if the total revenues of these services would be available, it would already be a great challenge to compile all the data for all the existing services, but it would then be more than tricky to find out the share of revenue directly linked to the UCC. What percentage of advertising revenue is derived from UCC monetization? Could subscription fees for a Pro account on a photo sharing site be considered as being part of revenues derived from UCC? The only "easy" job would be to measure the income generated by the sale of content created by users, but the fact is that UCC services are also quite discreet regarding this kind of information.

- In the same way, **revenue directly derived by users/creators from their creation is not known**, either through the direct sale of their creation, or through the monetization of their content through advertising for example. Some data exist regarding the percentage of revenue split between the author and the service, but since no data exist on the total volume or even on the number of potential beneficiaries of the revenue sharing policy, this kind of data cannot be provided.

- **Lastly, the nature of the Internet makes it difficult to conduct an analysis country by country for UCC services**. If surveys could provide very helpful information on the behaviour of individuals country by country, it would be far more difficult to analyse UCC platforms country by country, in particular for the main services. It would require to have, for each site, the breakdown of content upload, and/or the breakdown of members of the community, and/or the breakdown of revenue generated by country, and then to aggregate, country by country, all these pieces of information.

Due to all these constraints, it is currently impossible to give such precise data as the number of individuals creating original audio files or writing their own book, the current number of amateur videos stored on video sharing sites, figures for the advertising revenues generated by amateur photos or the number of people earning their lives only thanks to the revenue they derived from their content.

However, and even if it has proved to be impossible to provide extensive data for all European countries, we have succeeded in collecting a wide range of data regarding the following fields:

- The technical environment
- The level of computer and Internet skills
- The main activities on UCC services
- UCC creators
- UCC revenue

The various data detailed hereafter allow to provide an interesting view of the massive and quick development of UCC services, of the technical and social drivers and barriers, of the favoured activities, of the characteristics of UCC creators as well as of estimates of the revenue generated by UCC services.

The following figures also allow to draw up some comparisons between representative European countries, as well as with the USA, Japan and South Korea.

1.2. Technical environment

1.2.1. Internet roll-out

Major disparities regarding Internet access

Currently, the huge majority of UCC services is only –or mainly for some multi-platforms access services – available on the Web. Consequently, access and contribution to UCC services by individuals are closely related to their ability to access to the Internet, in particular at home.

At the end of 2007, 54% of European households had an Internet access at home (Source: Eurostat), but this figure hides important disparities throughout the EU Member States. The countries from the North of Europe (Scandinavia, Benelux, English and German-speaking countries) are clearly above the average, whereas countries from the East and the South of Europe are below. Slovenia is the only new Member State above the European average and two out of the three Baltic countries are around the European average.

Table 5: Households with an Internet access at home

(in%)

	2002	2003	2004	2005	2006	2007		2002	2003	2004	2005	2006	2007
Netherlands	58	61		78	80	83	France	23	31	34		41	49
Sweden				73	77	79	Slovakia			23	23	27	46
Denmark	56	64	69	75	79	78	Spain		28	34	36	39	45
Luxembourg	40	45	59	65	70	75	Lithuania	4	6	12	16	35	44
Germany	46	54	60	62	67	71	Italy	34	32	34	39	40	43
Finland	44	47	51	54	65	69	Poland	11	14	26	30	36	41
UK	50	55	56	60	63	67	Portugal	15	22	26	31	35	40
Belgium				50	54	60	Cyprus	24	29	53	32	37	39
Austria	33	37	45	47	52	60	Hungary			14	22	32	38
Slovenia			47	48	54	58	Czech Republic		15	19	19	29	35
Ireland		36	40	47	50	57	Greece	12	16	17	22	23	25
Malta				41	53	54	Romania			6		14	22
Estonia			31	39	46	53	Bulgaria			10		17	19
Latvia	3		15	31	42	51	EU Countries (27)			40	48	49	54

Source: Eurostat

Worldwide comparison

In comparison with non European countries, the EU Member States have a better penetration rate than the BRIC (Brazil, Russia, India, China), but are below Australia, the USA, the South Korea, Hong Kong, Japan and Taiwan. Netherlands has nevertheless the higher penetration rate in the world, and Denmark, UK and Germany are also close to the advanced Asian countries.

Figure 2: Internet penetration, all adults
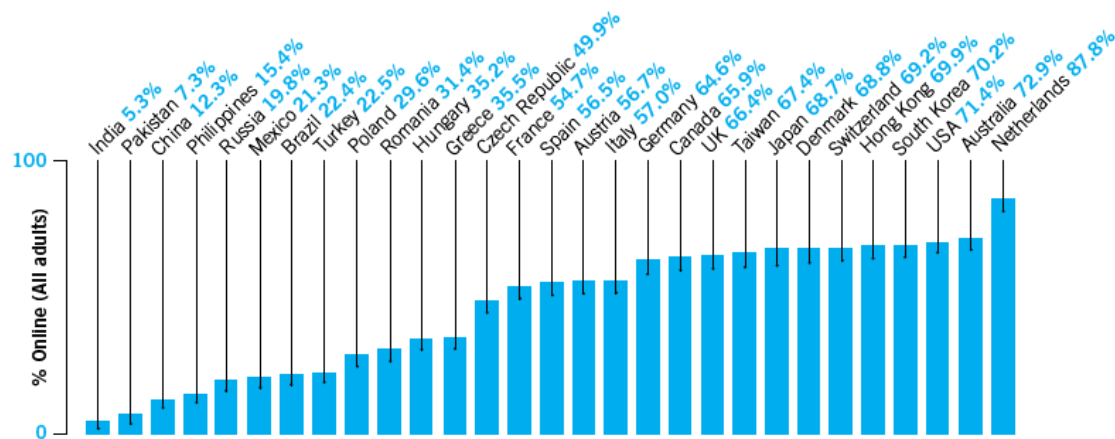
Source: Internetworldstat.com

A quick development of broadband access

Due to the generalization of pictures, music and –above all – of videos on the Web 2.0 services, needs in bandwidth are dramatically increasing. Broadband Internet access is unequally developed throughout Europe. However, broadband penetration rate is increasing quickly and is catching up with the Internet penetration rate. On average, 42% of the European households had a broadband access at home, i.e. 12% less than the Internet access. The breakdown between countries above and below the average is approximately the same than for the Internet access breakdown.

Figure 3: Penetration of broadband Internet access among European households in 2007

Source: IDATE based on Eurostat

© IDATE – TNO – IViR
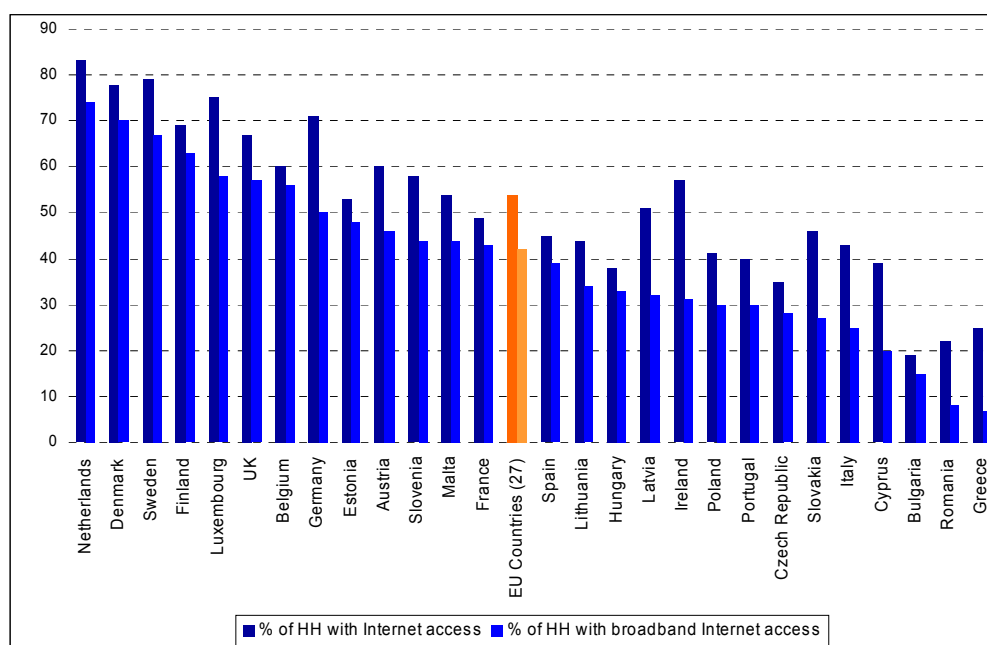
1.2.2.   IPTV roll-out

Some IPTV providers plan to introduce new services based on UCC concepts (or have already launched some[2]). Consequently, IPTV could become another way of delivering UCC services in the following years, even if the IPTV penetration rate is currently low in Europe. However, it should experience substantial development in some major markets such as France and Italy, but also in numerous Eastern countries in particular in Estonia, Latvia and Slovenia in the very near future (all countries in which the Internet penetration rate is below the European average, except Slovenia) and could become an alternative or complementing way of accessing UCC services.

Figure 4: Evolution of IPTV penetration in TV Households from 2008 to 2012
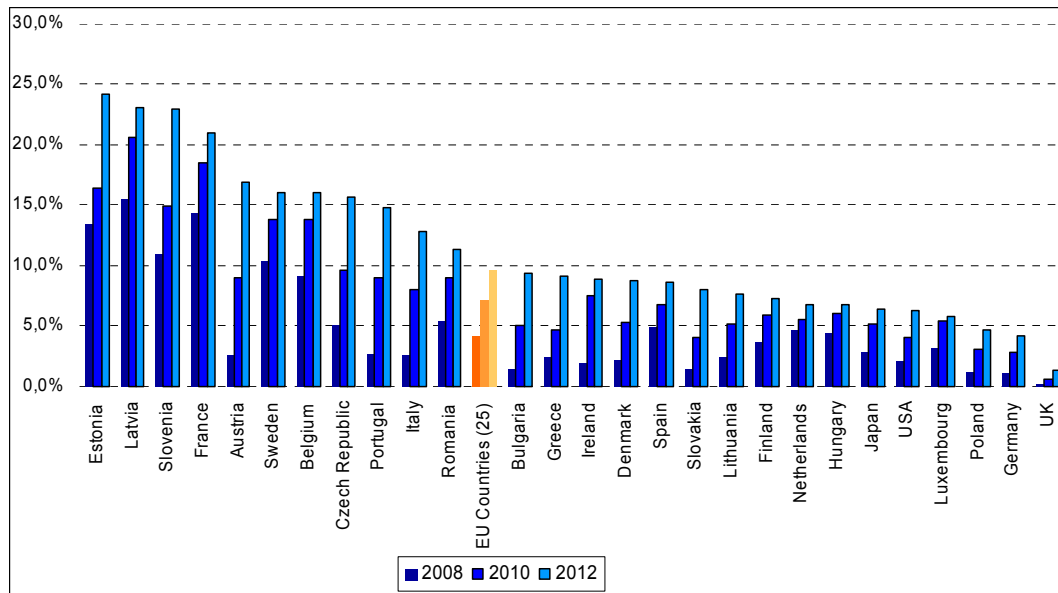
Source: IDATE

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[2] Cf. in Annex "Case studies" the French "Perso TV" service launched by Free.

1.2.3.   Digital cable roll-out

If IPTV providers seem to be more involved in the development of UCC services on the TV set, cable-operators could be tempted to follow the same path, relying on the massive digitalisation of their networks. The penetration rate of digital cable is currently quite low in Europe (either because analogue cable is still very high in the most cabled countries or because the total cable penetration is low in some countries), but it should develop quickly thanks to the global trend towards full networks' digitalisation and switch-off of the analogue signals.

Figure 5: Evolution of digital cable penetration in TV Households from 2008 to 2012

Source: IDATE

© **IDATE – TNO – IViR**
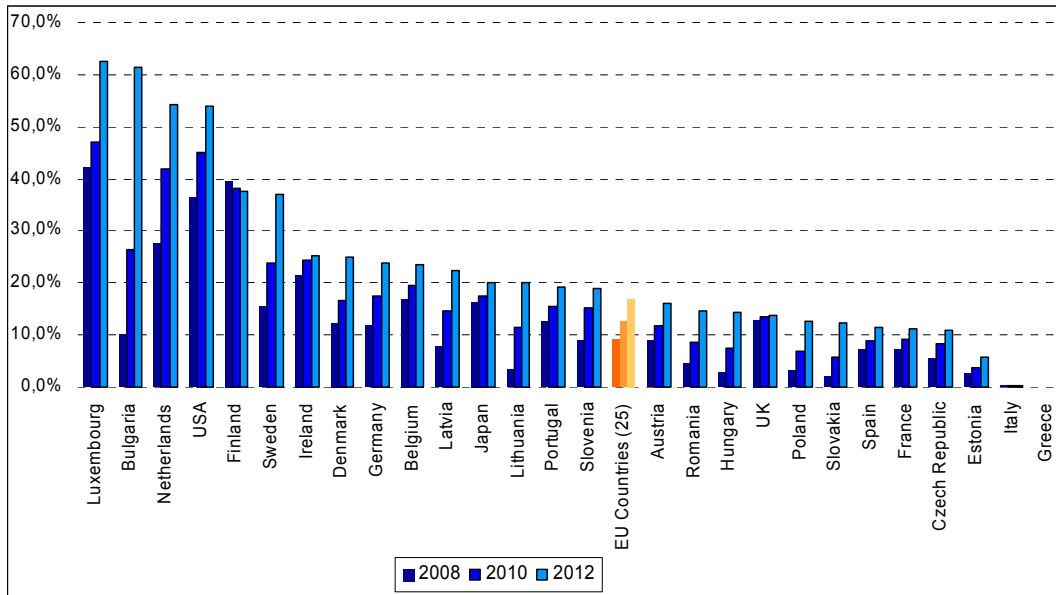
1.2.4.   3G roll out

Last, but not least, mobile phone should be one of the most promising networks as far as UCC development is concerned according to the interviews conducted during this study.

But the roll-out of mobile UCC services is subordinate to the roll-out of 3G networks, the adoption of 3G terminals and services by users, and the generalisation of unlimited 3G access.

For the moment, 3G penetration among mobile subscribers is quite low, but (thanks to the rapid turnover of mobile devices and the roll out of 3G networks), the equipment in 3G mobile phones should experience a tremendous growth in the coming years. The average European penetration rate should increase from 18.3% in 2008 to 62.2% in 2012.

It will remain that 3G equipment will be mandatory to access and contribute to mobile UCC services, but it will not be sufficient to ensure the development of mobile services.

Figure 6: Penetration of 3G mobile phones among mobile subscribers in 2007

Country	Penetration
Austria	40,0%
Sweden	36,0%
Italy	31,4%
Portugal	28,6%
United Kingdom	27,0%
USA	27,0%
Denmark	25,0%
Ireland	25,0%
Luxembourg	25,0%
Netherlands	25,0%
Switzerland	25,0%
Finland	23,5%
Norway	22,0%
Total EU countries	18,3%
Belgium	18,0%
France	16,2%
Germany	15,0%
Slovenia	15,0%
Latvia	13,0%
Romania	12,0%
Slovakia	10,0%
Estonia	10,0%
Hungary	9,0%
Greece	8,0%
Poland	7,6%
Lithuania	6,5%
Bulgaria	4,0%
Czech Republic	2,5%
Spain	2,0%

Source: IDATE

Even if disparities between the European countries are obvious, there is no clear link between the Internet and the 3G penetration rate. Portugal, which is below the average as far as Internet is concerned, is one of the leading countries on 3G penetration. But, in most cases, Northern and Western European countries are above the average European penetration whereas Southern and Eastern European countries are below.

In comparison with non European countries, the USA is at the level of the UK (27% of 3G mobile subscribers in 2008), whereas Japan is far ahead since more than 95% of Japanese mobile subscribers will have a 3G handsets at the end of 2008 and since all of them should be equipped by 2010.

Except for the Asian industrialised countries, in which almost all mobile subscribers should be 3G subscribers by 2012, Western Europe should be a major area for the penetration of 3G services (66% of mobile subscribers should have a 3G subscription in 2012), as well as North America (68%).

Figure 7: Evolution of 3G subscribers in Europe from 2008 to 2012
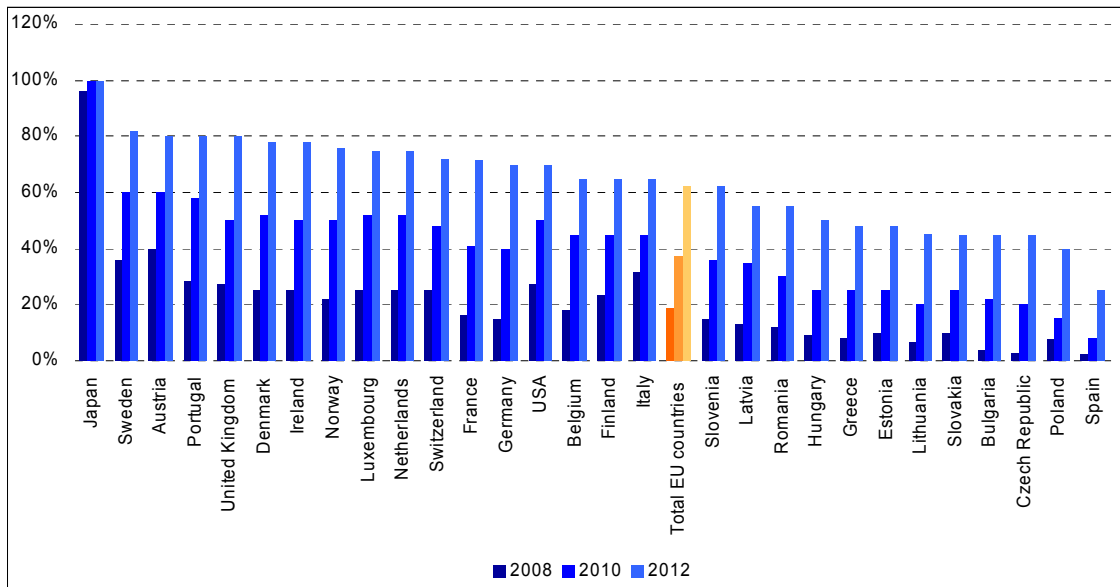
Source: IDATE

1.2.5. Creation devices: the example of digital camera

Digital cameras are obviously one main tool in the process of creating content. They are already widely deployed within households, but still experience impressive growth rates. According to GfK, 140 million digital cameras will be sold worldwide in 2008 - a growth of 11% compared with 2007, i.e. twice as much as the sales of analogue cameras on their glory days (10 years ago).

The market penetration would be over 60% on average in households within the markets covered by GfK's study. Asian and Latin American countries are driving the market. In Europe, growth is mainly to be found in Eastern European markets which enjoyed a 29% increase in the first six months of 2008 and where sales of over 12 million units are predicted for 2008, whereas Western European only achieved a 5% increase during the same period.

Figure 8: DSC cameras worldwide sales units (in millions), 1997-2008
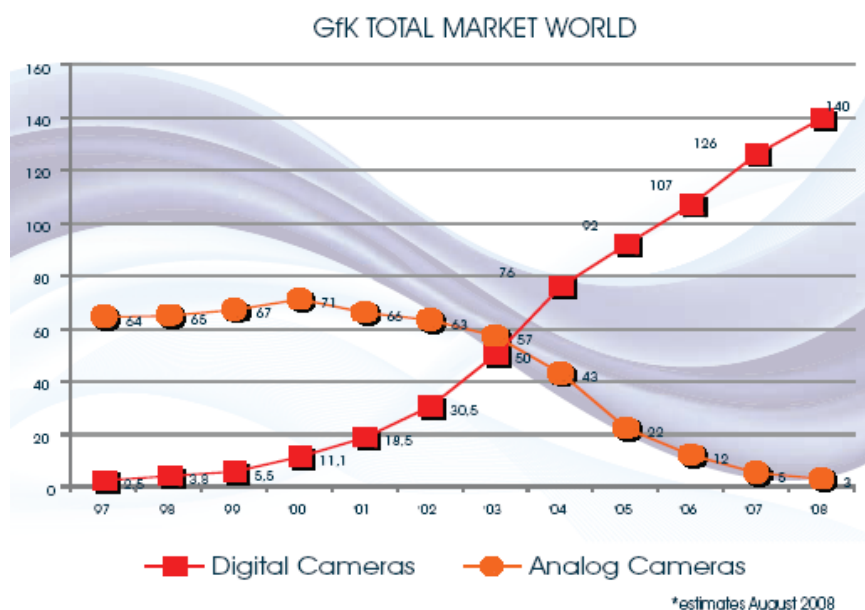
Source: GfK

1.3. Level of computer and Internet skills

1.3.1. Level of computer skills

If the penetration rate of the Internet – and of the broadband Internet in particular – in the European households will be a key element in the adoption of UCC services by individuals, the education of people and their ability to use computer on the one hand and the Internet on the other hand will also play a great role in the development of the UCC services and the total amount of content created by the users.

On average, 60% of European individuals (between 16 and 74 year-old) claim to have some computer skills either low (13%), average (24%) or high (23%). These figures are quite stable on the recent period (63% in 2005 and 57% in 2006).

Figure 9: Individuals' level of computer skills in 2007
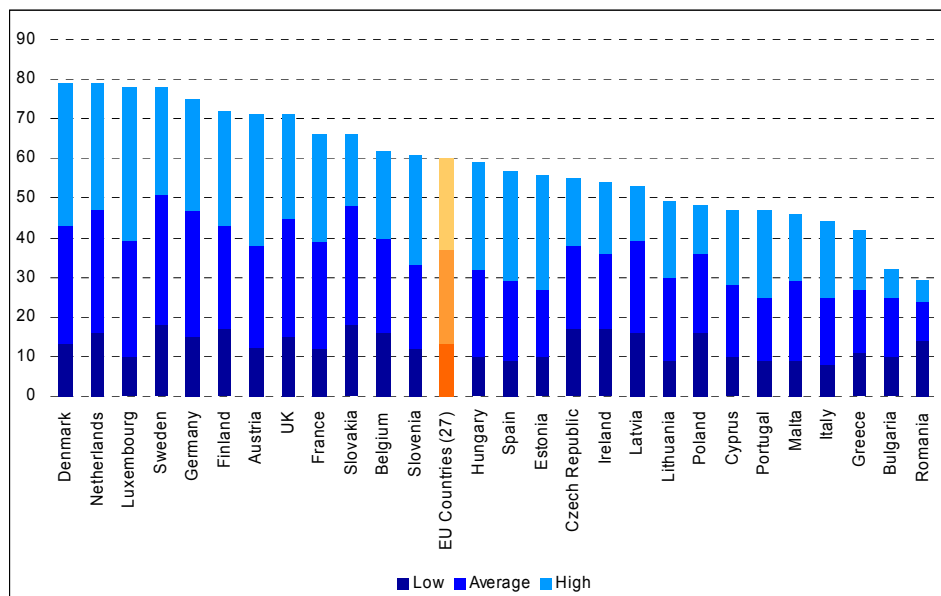
Source: IDATE based on Eurostat

1.3.2. Level of Internet skills

Unsurprisingly, there is a close correlation between computer and Internet skills. The more familiar people are with a computer, the more competent they are on the Internet. The main difference to highlight between computer and Internet skills is about the level of individual's skills. On average, 60% of European individuals claim to have Internet skills, but only few of them think they are highly qualified (only 8%), whereas 29% think they have low competences. However, these figures are slowly evolving: in 2005 5% of European individuals claim to have high skills and 31% that they have low skills.

Of course, the level of Internet skills is also closely linked to the level of Internet penetration: the countries with the highest levels of Internet skills are also the countries with the highest Internet penetration rates, and conversely.

Figure 10: Individuals' level of Internet skills in 2007
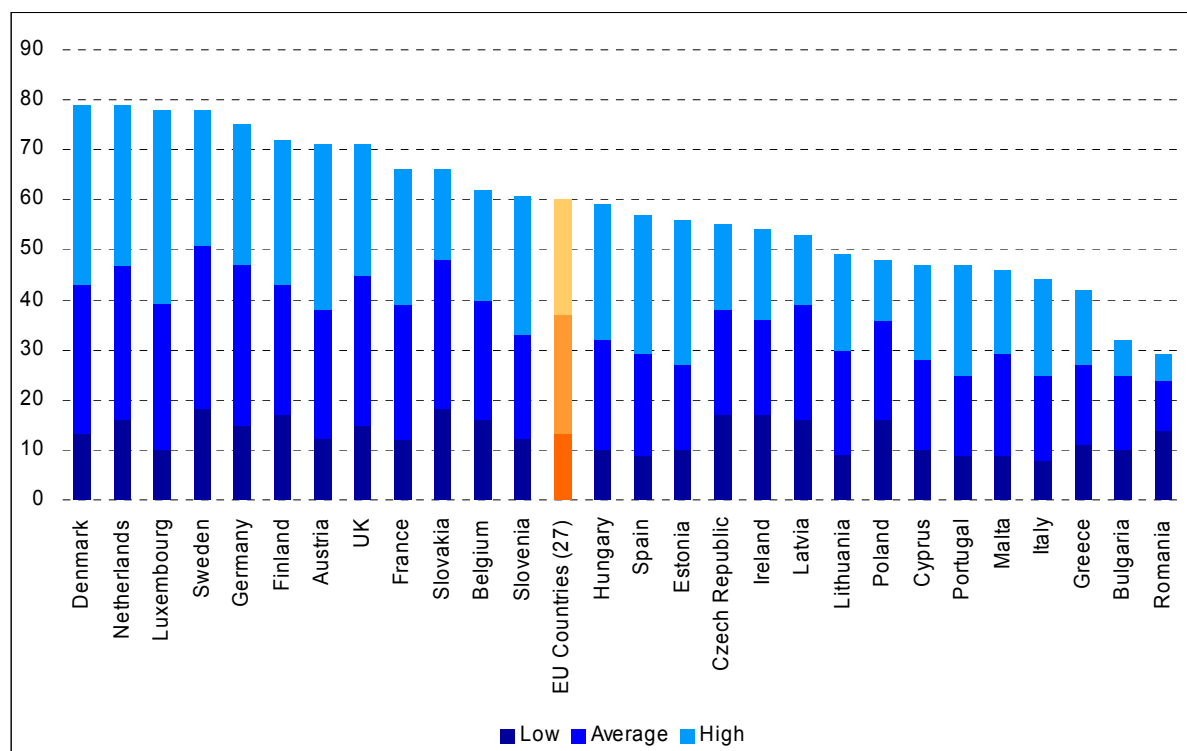
Source: IDATE based on Eurostat

If Internet skills are necessary to participate in the Information Society, the roll-out of UCC services and their wide adoption by a large population might also encourage non-digital literate people to acquire those skills so as to stay tuned with their family or their community.

1.3.3.   Internet uses

Effective use of the Internet

Logically, the higher the Internet penetration is, the most individuals connect to the Internet. Percentages of individuals having used the Internet at least once during the last three months are now very close to the percentages of Internet penetration. In 2007, 47% of European people did connect to the Internet at home (for an average Internet penetration rate rising at 52%).

Figure 11: Percentage of individuals having connected to Internet at least once at home within the last three months
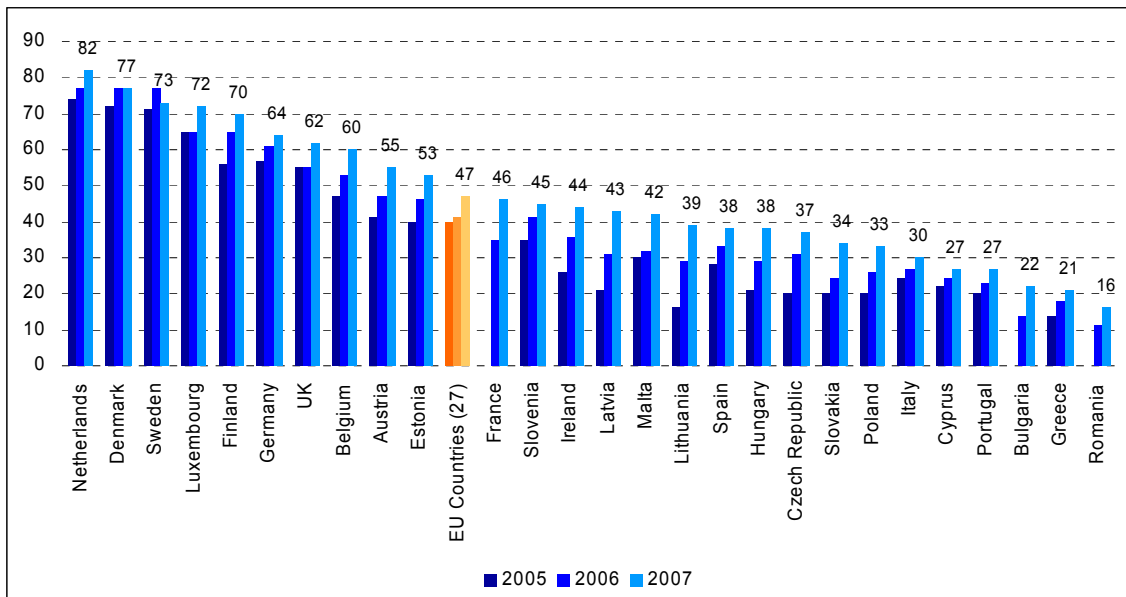
Source: IDATE based on Eurostat

Data provided by EIAA[3] are quite similar, since 57.1% of the adults surveyed in 10 Western European countries[4] say they do use Internet during a typical week.

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[3] in Mediascope Europe Study, 2007.
[4] Belgium, Netherlands, UK, France, Spain, Italy, Germany, Sweden, Norway, Denmark.

Figure 12: Percentage of adults using the Internet by countries in 2007

Proportion of users: NL tops Euro league

Q1a/2a/3a. In a typical 7 day week, that is Monday to Sunday, can you tell me if you use the internet?

- More than 8 in 10 adults are going online each week in the Netherlands
- Germany contributes most to the total (43.2m)

	2007 Millions	%
Netherlands	11.0m	81
Norway	2.9m	78
Sweden	5.6m	74
Belgium	5.7m	66
Denmark	2.9m	65
UK	31.7m	63
Germany	43.2m	61
France	30.1m	58
Europe	169m	57
Spain	17.6m	51
Italy	18.6m	37

Mediascope Europe
Media Consumption Study 2007

Source: EIAA, Mediascope Europe 2007

Whatever the location (at home, at the office, etc.), the type of access (narrow- or broad-band) and the sex of the user, half of the individuals in Europe uses the Internet at least once a week. This percentage increases quite quickly, since in 2005 only 43% of Europeans used the Internet regularly. The same disparities can be observed among European countries than for the Internet penetration (only 22% of the Romanians do use the Internet at least once a week whereas this percentage reaches 81% in the Netherlands). As for the Internet penetration, countries from the North and North-West of Europe lead the market, whereas countries from the East and the South of Europe are less advanced.

Figure 13: Percentage of individuals using Internet regularly

(at least once a week during the last three months)
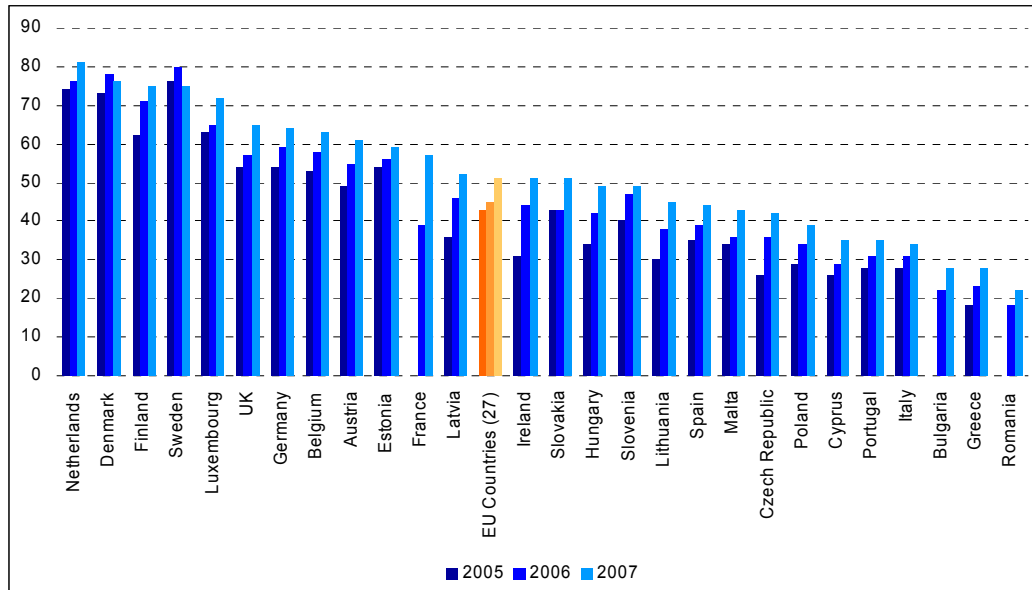
Source: IDATE based on Eurostat

It appears clearly that the type of access to the Internet has a major influence on the effective use of the Internet. Thus, 81% of the individuals equipped with a broadband access at home are regular users, whereas only 63% of individuals with a narrowband access use regularly the Internet. Consequently, Greece, which has the lowest penetration rate for the broadband Internet access in Europe (7%), shows an impressive 94% of regular users among individuals equipped with a broadband access.

Figure 14: Percentage of individuals using Internet regularly according to their Internet access, in 2007

(at least once a week during the last three months)
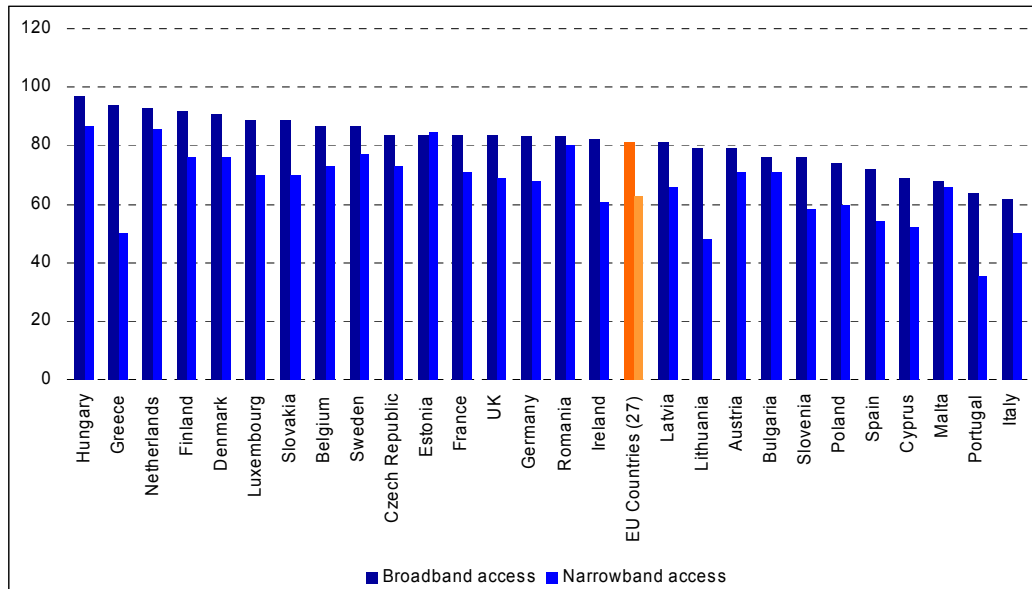
Source: IDATE based on Eurostat

Generalization of the Internet use to all categories of population

In all countries (except for Estonia), the percentage of regular Internet users is higher among men than among women: 56% of European men are regular users, whereas only 47% of women use the Internet regularly. If the regular use of the Internet has increased both among men and women, the gap stays constant between them. In 2004, the percentages rose at 40% for men and 31% for women.

Figure 15: Percentage of individuals using Internet regularly
(at least once a week during the last three months) according to the sex, in 2007
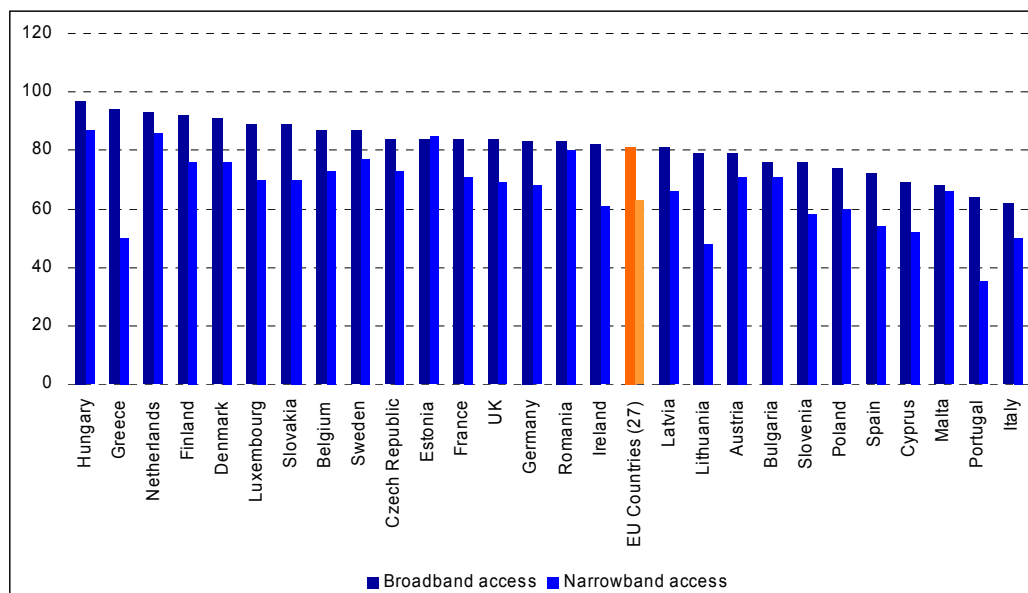
Source: IDATE based on Eurostat

However, the last Mediascope Europe survey seems more optimistic regarding the equal spread of the use of the Internet among all categories of population. According to it, women and the elderly are more and more involved in the use of the Internet:

- The number of women online increased by 8% between 2006 and 2007, closing the gap on men. Among the 169 millions of weekly Internet users in the 10 European countries covered, 81.4 millions are women (i.e. 48.2%).

- Whereas the "Silver Surfers", as they are nicknamed in the study, experienced the highest increase rate between 2006 and 2007, up 12% year-on-year. 28.6 million users were 55+ in 2007 (i.e. 16.9%).

Since this survey is conducted among a restricted base of countries, its results are not representative from all the European countries but from some of the most advanced countries (as far as the Internet is concerned). We could assume that the trends observed on these countries will spread over the rest of Europe as when the Internet penetration will increase.

The habits developed by young people will progressively reach the other generations, favouring the apparition of a connected population. In particular, the craving for staying connected to one's family – or to the world – might be a strong driver for learning how to use the Internet. Grand-parents using social networks, photo sharing site or instant messaging so as to get news and pictures of their grandchildren is often given as an example of motivation to become an active Internet user.

Intensification of the use of the Internet

The average weekly time spent on the Internet is also increasing. People spend on average 11.6 hours per week on the Web (11.2 hours in 2006 and 10 hours in 2005). 28.7% of the Internet users claim to be "heavy users", that is to say that they spend more than 16 hours per week on the Web.

Younger people tend to spend more time on the Internet, and more men than women say they are heavy users.

Figure 16: Breakdown of the Internet heavy users by country and by age, in 2007

Source: EIAA, Mediascope Europe 2007
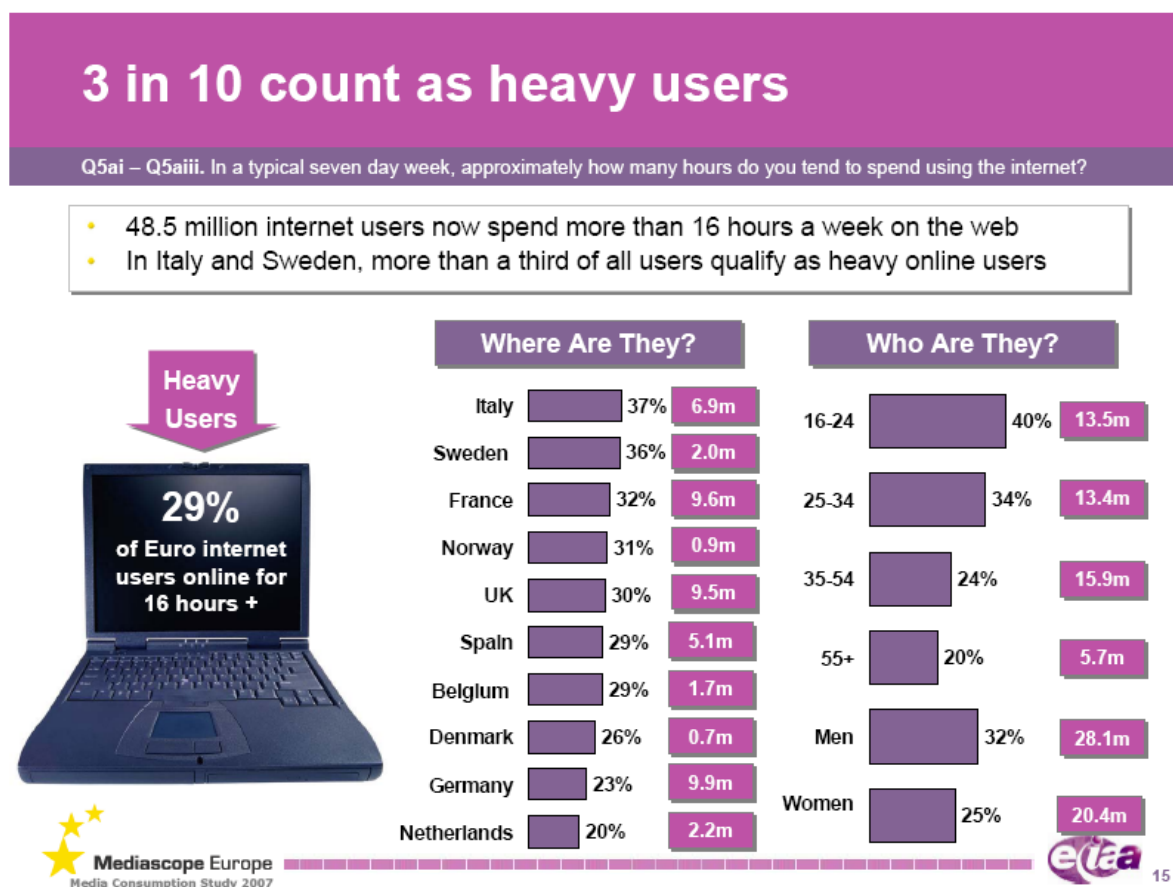
1.3.4. Media literacy: the example of the UK

OFCOM – the UK national regulatory authority – carried out an extensive study in 2005-2006 on media literacy, which covered the use of television, radio, the Internet and mobile phone.

Even if this analysis only concerns the UK population and if the figures might have changed since then, some findings of this study are underlined here being particularly enlightening.

The following table summarises the main findings of the study and allow to draw up a comparison between the main media.

Regarding more specifically the Internet, it is to notice that:

- The level of awareness of features of interest among people interested in the Internet is already very high and is comparable to the score achieved by mobile phone and digital TV;

- The level of concern is greater for the Internet than for the other media. Concern about TV and the Internet mostly relates to content whereas concern for mobile phone relates to health issues;

- Whilst the overall index measures for breadth of usage are similar for both the Internet and mobile phone, the mobile phone breadth of use measure is strongly skewed by the youngest adult users. In comparison, breadth of use of the internet is more consistent across all ages;

- Figures show high levels of self-rated competence for tasks relating to the Internet (equivalent to figures for digital TV but a bit lower than figures for mobile phone).

- The measure of the knowledge of content control for the Internet is related to the extent that iIternet users say they carry out various checks or say they are confident about blocking computer viruses or email spam. According to this index measure, just over half of users can control content, which is far better than for mobile phone but less than for digital TV.

- Awareness of how internet websites are funded is fairly low in comparison with TV and radio. More specifically, awareness of how search-engine websites are funded is only at 25%, whereas awareness of how the BBC website is mainly funded is higher (46%). According to OFCOM, there is a difference between those with and those without the internet at home – 37% of those with the internet give the correct answer to the question compared to 10% of those without.

- Trust in internet news websites is rather low in comparison to TV and radio, but significantly higher than newspapers (46% only);

- Creating content refers to those with internet access who say they have their own website, their own web-log, and who can edit and organise photos on a computer for viewing with confidence. The level was in 2005 quite low (13%).

Table 6: Overview of media literacy by platform

	Digital TV	Digital Radio	Internet	Mobile Phone
Interest in features (Amongst all adults) (% of maximum potential)	**59%**	47%	48%	47%
Awareness (Amongst those interested) (% of maximum potential)	89%	78%	91%	**93%**
Volume of usage per week (Amongst owners)	21.6 hrs Live and time-shifted broadcast TV	15.2 hrs Home, car out & about, at work / place of education	9.9 hrs Home, at work / place of education, anywhere else	20 calls 28 texts
Level of concern (% of maximum potential amongst all adults)	27%	6%	**38%**	23%
Breadth of usage (% of maximum potential amongst owners)	n/a	n/a	**18%**	16%
Competence with digital features (% of maximum potential amongst owners)	75%	n/a for non DAB owners	76%	**88%**
Knowledge of content control (Amongst owners) (% of maximum potential)	**81%** Aware watershed	n/a	57% Judgement of website security / can block viruses / spam	17% Aware age verification / preinstalled filters
Industry funding / regulation (% of maximum potential amongst all adults)	**80%**	58%	34%	-
Trust in news outlets (% of maximum potential amongst all adults)	**78%** UK TV news outlets	76% Radio news outlets	63% News websites	-
Creating content (% of maximum potential amongst owners)	n/a	n/a	**13%** Have own blog / website / edit & organise photos on computer	-

Source: according to OFCOM - Media Literacy Audit: report on adult media literacy

The UK Internet users show a great interest and competence in carrying out several tasks linked to the usage of the Internet (except for radio programme).

In particular, 58% of the Internet users feel confident in editing and organising photos on a computer for viewing, and another great part (figures are not detailed) say they are interested in but that they cannot do it with confidence.

Figure 17: Competence with internet tasks
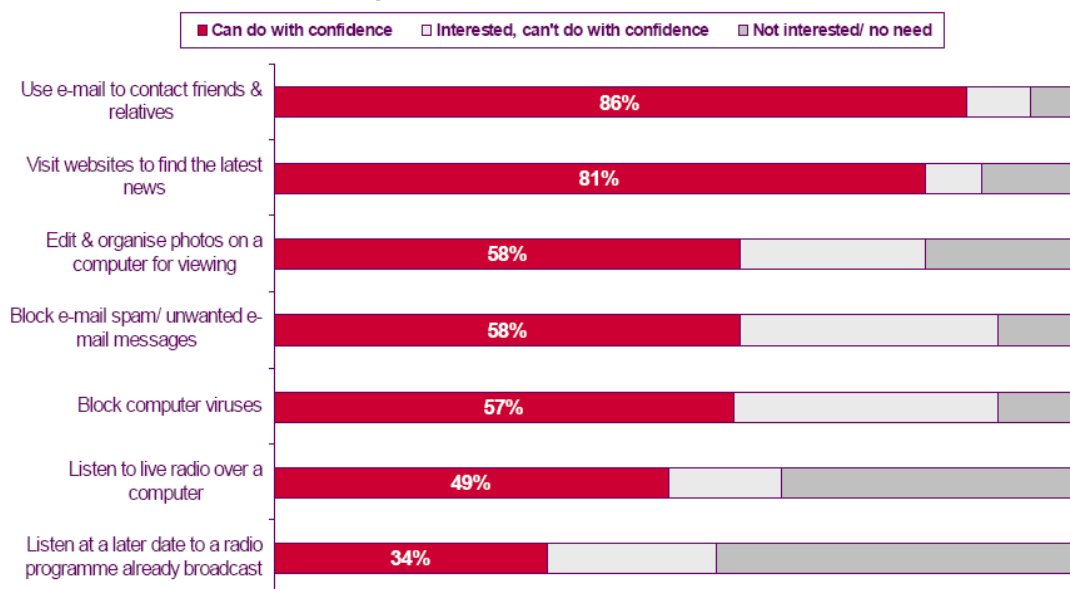
Source: OFCOM - Media Literacy Audit: report on adult media literacy
Base: All with the internet at home (1,613)

1.3.5. Security problems

People already confronted with security problems

If the use of the Internet experiences a strong take-off – which is favourable to the development of UCC services – some security problems might occur which can prevent people from using the Internet, in particular from paying online or from giving some personal information on the Internet. This would of course be damaging for the economic sustainability of Web 2.0 services as well as for the development of social networks.

According to Eurostat in 2005, 1.3% of the Internet users have experienced problems online with their credit cards (fraudulent usage of their credit card), 3.8% have been confronted with privacy issues (improper use of personal data given online) and 34.4% have been victims of virus attacks.

Privacy issues have been less important in 2005 than in 2004 (4.6% in 2004), but Eurostat provides no data for 2006 and 2007, so it is difficult to conclude on the basis of these two sets of data that security on the Internet is improving. On the contrary, we could imagine that the recent massive success of social networks, blogs and more generally of UCC services has driven an intensification of personal data transmission on the Internet and probably to a parallel development of an improper use of these data.

Problems linked to the fraudulent use of a credit card have slightly increased between 2004 and 2005 (from 0.9% in 2004 to 1.3% in 2005). But there is no such data for 2006 and 2007. We could also presume that the development of e-commerce has been accompanied by a raise of the security problems with credit cards.

In 2004 and 2005, the main problems encountered by Internet users were due to a virus attack. In comparison, credit cards and privacy problems were quite marginal in all European countries.

It is to notice that it seems to have no direct links between online security problems and Internet penetration or Internet use. Whereas Spain and Italy are below the European average as far as

Internet penetration and use are concerned, there were in 2005 among the countries in which Internet users experienced the main security problems, close to Luxembourg and the UK, which are at the contrary two countries with high Internet penetration rates.

Figure 18: Percentage of individuals having used Internet during the last year and who had experienced security problems (in 2005)
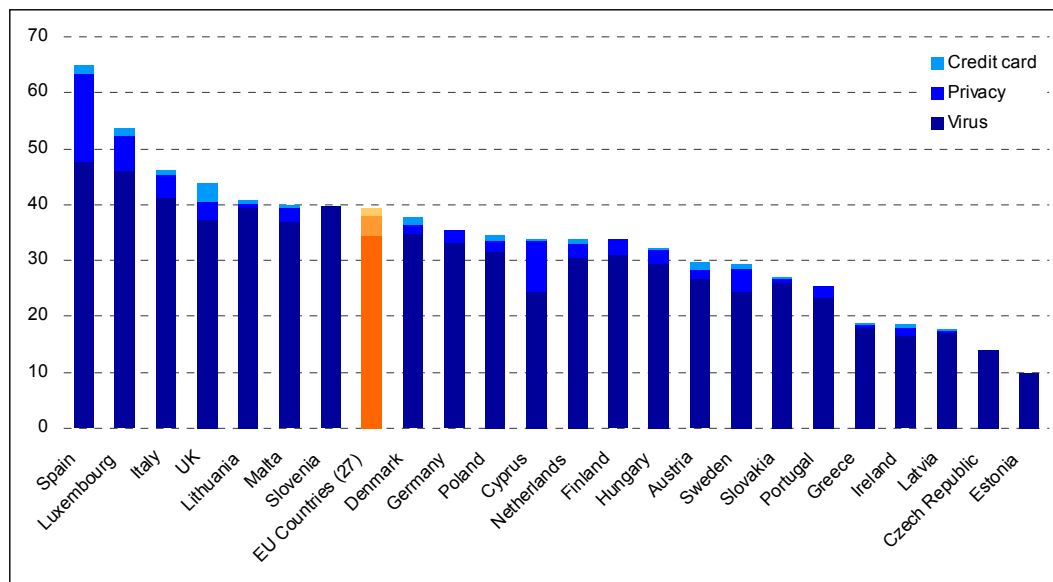
Source: IDATE based on Eurostat

Personal data on the Internet

According to the Media Literacy Audit conducted by OFCOM in 2005-2006, the UK internet users seem quite reluctant to enter personal information on the Internet. Except for the personal e-mail address that more than a half of Internet users give easily, the other details suggested in the study either are not given on the Internet or can be given but raise concerns on behalf of Internet users.

According to OFCOM, willingness to enter one's details increases with use. Levels of concern are lower among the heaviest and longest-established users.

Figure 19: Entering personal details on the internet
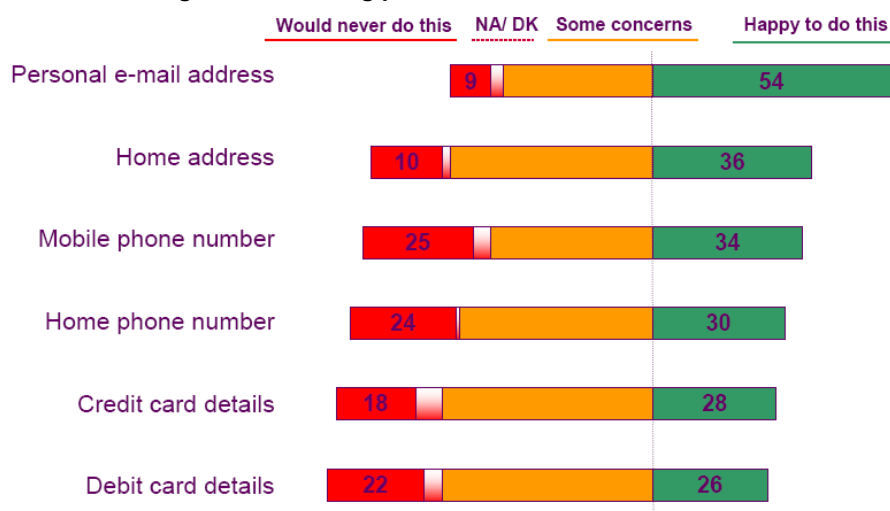
Source: OFCOM - Media Literacy Audit: report on adult media literacy
Base: All UK adults who use the internet at home (1,613).

Even if these data only concern the UK Internet users, we may presume that the behaviour of the Internet users in the UK is not fundamentally different from the behaviour of the users from the rest of Europe, as suggested by some interviews conducted during the study. The protection of personal data on the Internet will be one of the issues that will need to be addressed so as to create a safe legal environment suited to the further development of Web 2.0 services and of UCC services in particular.

Concerns about content on the Internet

As mentioned before, concerns about the internet are the highest of the four platforms analysed in the Media Literacy Audit conducted by OFCOM.

The level of concern is higher among people having an Internet access at home (70% of them express concerns about what is on the internet) than among people with no Internet access at home (44%).

The main concern of Internet users is about content (55% of Internet users). Personal privacy is seen as a concern by only 28% of Internet users.

On the base of the total adult population, concerns regarding offensive content are shared by 45% of all UK adults out of which 17% claims to be "very concerned" about the Internet. 35-54 year-old and females show the highest level of concern (respectively 57% and 48% vs 42% for men).

According to OFCOM's study, levels of concern vary according to socio-cultural criteria and are higher amongst those aged 35-64; females; those with children at home; those with a disability (and aged under 65); those in higher income households (and aged under 65), and those from minority ethnic groups.

Figure 20: Concerns about what is on the internet

		Broadband	Dial-up
■ ANY NOMINATIONS	70%	69%	73%
☐ Content offensive	55%	55%	55%
■ Risk to society/ standards/ values	36%	33%	43%
☐ Risk to personal privacy	28%	30%	26%
■ Risk to finances/ device	24%	26%	22%
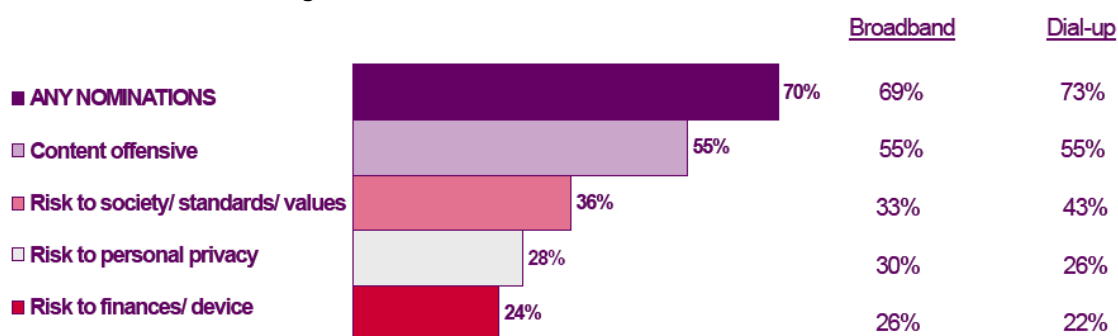
Source: OFCOM - Media Literacy Audit: report on adult media literacy
Base: All UK adults with internet access aged 16+ (3,244).

Since a great majority of UK Internet users express some concerns about the Internet, and in particular about content on the Internet, and since levels of concerns are even higher for people having access to the Internet at home, it is clear that providing Internet users with a safe environment, limiting the potential risks on the Internet will be crucial.

Level of understanding of Internet regulation

OFCOM's study shows that the understanding of Internet regulation is quite low among the total adult population. 40% say they do not know if the Internet is regulated or not, 30% that it is not regulated and 29% that it is.

The level of understanding is different depending on the availability of an Internet access at home or not. Those with an Internet access at home are both more likely to say the Internet is not regulated (38% vs 21%) and that the Internet is regulated (34% vs 24%).

The level of understanding also varies depending on the age. Only 29% of the 16-34s think it is not regulated whereas 37% of the 35-44s say that the internet is not regulated.

Among those who believes the Internet is regulated, 4% think that the NRA (national regulatory authority) is in charge of the regulation, 2% that the Internet sites deal with the regulation, another 2% that the ISPs take care of the regulation.

Figure 21: Understanding of internet regulation
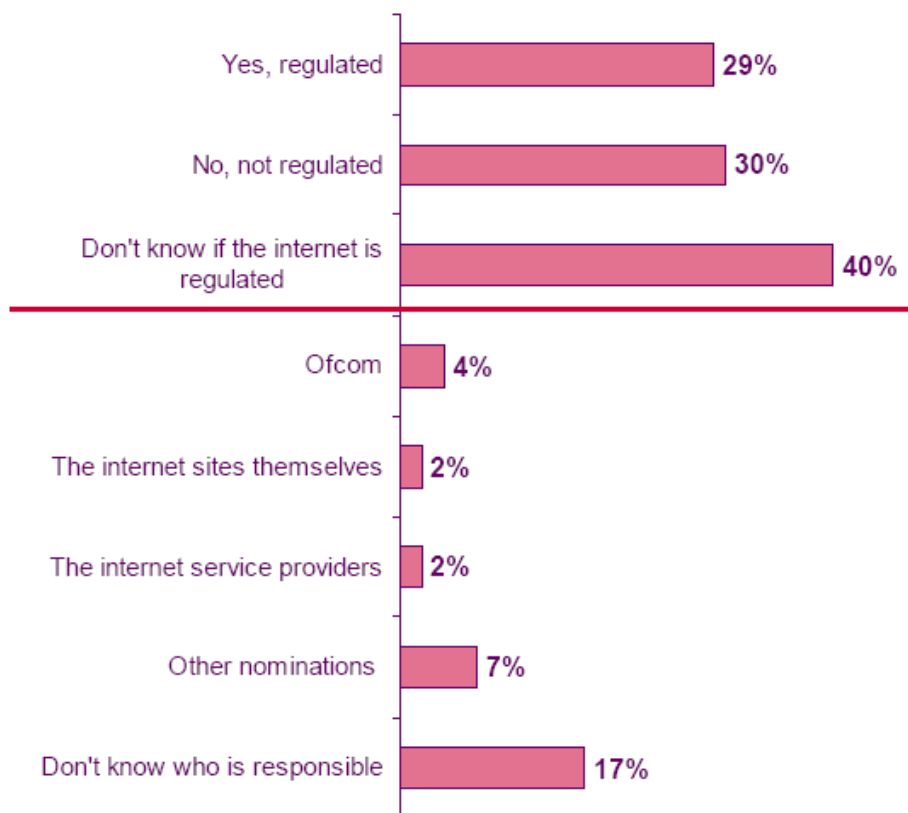
Source: OFCOM - Media Literacy Audit: report on adult media literacy
Base: All adults aged 16+ (3244) / all those who believe the internet is regulated

Seemingly, only few Internet users are familiar with the existing regulatory framework for the Internet. It is unclear whether this is because of a general unawareness of existing law or because of uncertainties and unclarities in existing law.

1.4. What people do on UCC services?

Since almost all of the UCC services are for the moment only available on the Internet (or closely related to the Internet), we will focus the analysis on online UCC activities.

1.4.1. The main online activities

Currently, searching and e-mails are still the dominant usages on the Internet by far. But some usages related to the UCC services have experienced strong growth between 2006 and 2007. Thus, "watching film, TV or video clips" has become a popular usage in one year time (+150%), supported by the roll-out of broadband Internet access on the one hand and the launch of video sharing sites on the other hand. The "ratings and reviews" usage has also experienced a major growth since 2006 (+42%) and is now equivalent to sharing thoughts on forums.

Figure 22: Top ten online activities - Monthly usage of Social Computing applications in 2007
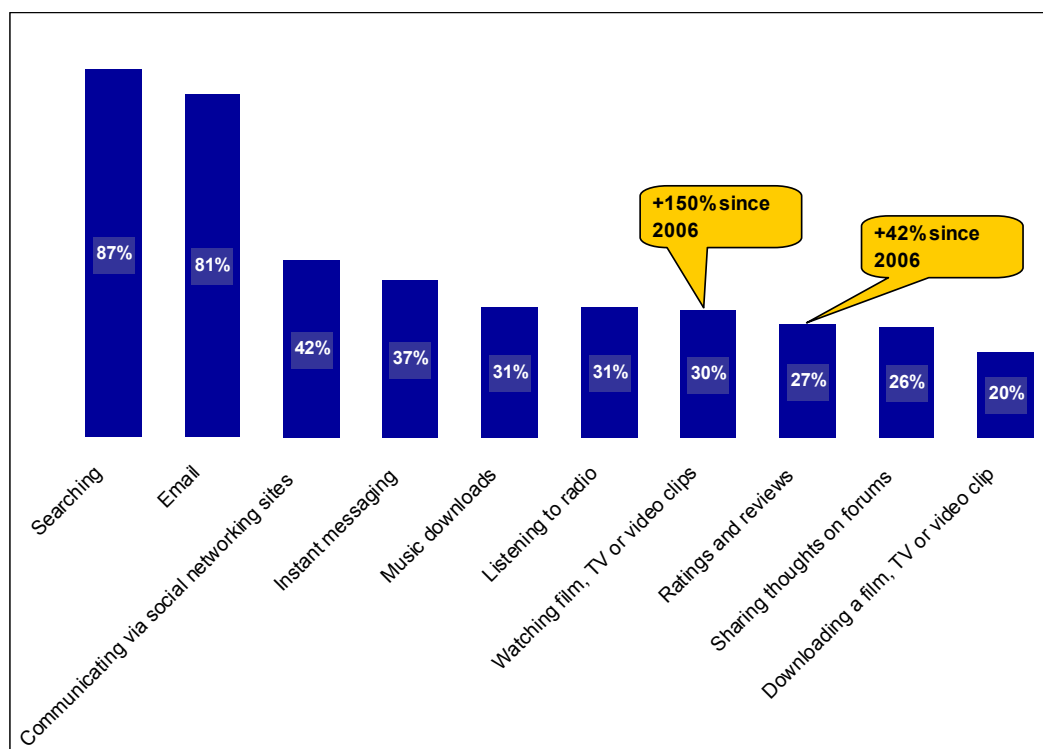
Source: EIAA Mediascope Europe 2006 and 2007[Base: All Europe Internet users (n=4017)]

The communication usages in general hold a major place on the Internet (e-mails, social networking sites, instant messaging, sharing thoughts on forum), but the main dynamic activities are clearly linked to entertainment content either professional or amateur. The increasing penetration of broadband access has allowed the massive developments of services including content demanding in terms of bandwidth like music, pictures and videos and, in particular, has favoured the launch and success of video sharing sites, peer-to-peer networks, catch-up TV services and VOD services.

Figure 23: Growth areas in Internet activities

"Which of the following types of web activities do you use at least <u>once a month?</u>"

Source: EIAA Mediascope Europe 2007

1.4.2. The main online activities related to UCC services

Universal McCann tracks the consumer usage, attitudes and interests in adopting social media platforms since September 2006. For their last wave in March 2008, 17,000 Internet users[5] in 29 countries were surveyed throughout the world. Their figures show an impressive increase in the use of all kind of social platforms, which is the direct effect of the participation from Internet users. Watching video clips online is the activity which has experienced the most spectacular take off: only 31% of Internet users said they already watched a video clip online in September 2006, 83% did so in March 2008.

Figure 24: The main activities related to social media platforms
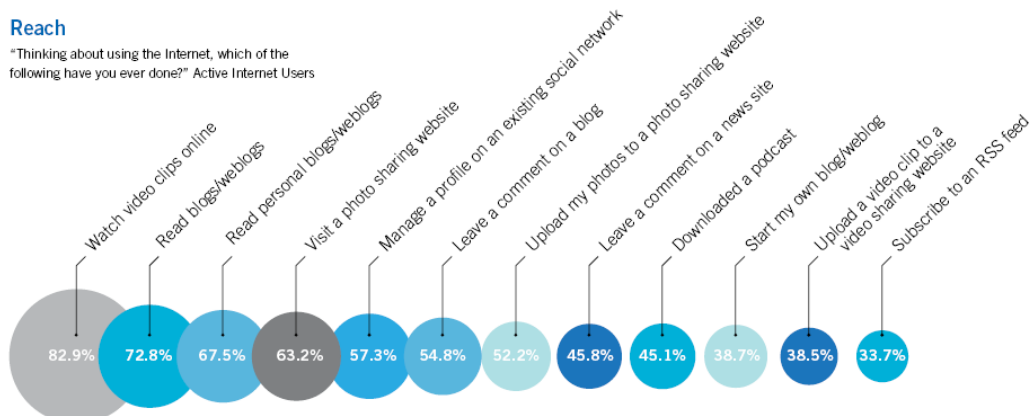
Source: Universal McCann, Power to the people – Social Media Tracker Wave 3 (March 2008)

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[5] People surveyed are representative of the 16-54 active Internet users, i.e. of people using the Internet everyday or every other day.

It is however to notice that active Internet users essentially participate to social media platforms, rather than contribute actively to the development of content. If watching video clips online, reading blogs and visiting photo sharing websites have become common activities for almost every user, the percentage falls to 38.5% for video clips uploading and 38.7% for blog creation. Moreover, the activities requiring an involvement or a contribution from the users are the one that have evolved the most slowly over the past 18 months (Cf. below the evolution of "start my own blog/weblog" and of "leave a comment on a news site").

Figure 25: Evolution of the adoption of social media platforms by active Internet users
(September 2006-March 2008)

Reach over time
"Thinking about using the Internet, which of the following have you ever done?" Active Internet Users

- Read blogs/weblogs
- Start my own blog/weblog
- Leave a comment on a news site
- Watch video clips online
- Download a podcast (pre-recorded radio/ audio show)
- Create a profile on a social network
- Subscribe to an RSS feed

Power to the people - Social Media Tracker Wave 3
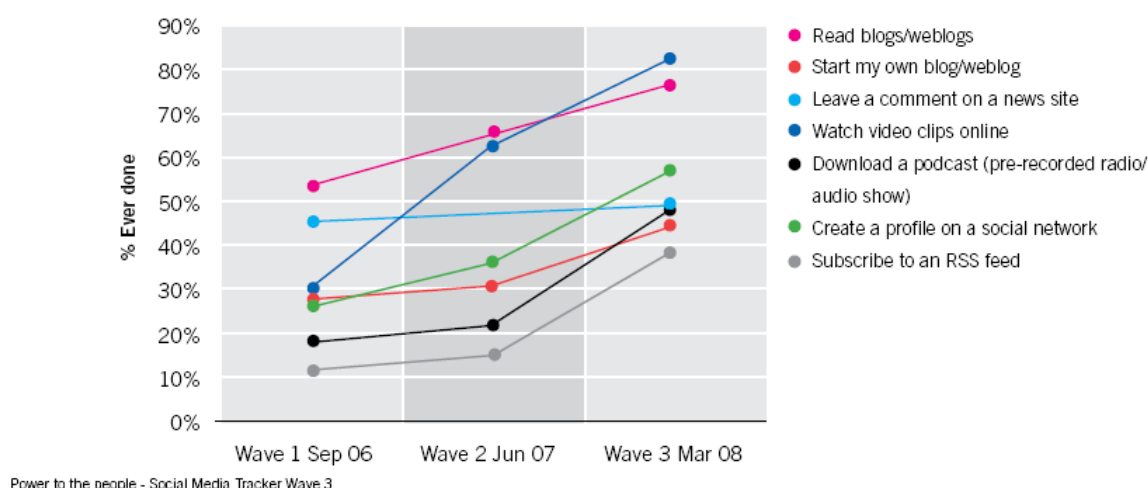
Source: Universal McCann, Power to the people – Social Media Tracker Wave 3 (March 2008)

The Pew Internet & American Lifestyle Project provides quite similar indicators but for the USA only and for 2005. We can presume that these figures would have also risen if a new survey would have been conducted more recently (in particular regarding social networking sites). According to this survey, more Internet users do share online content created by them or use material found online to integrate in their own creation, than create their own blog, which is quite coherent with the results given by Universal McCann even if the magnitudes are not the same.

According to the level of "active creators" we have seen previously, we can presume that the proportion of people active on the web will probably go on increasing, but that activities requiring a strong involvement from the Internet users (such as blogs creation) will still stay less developed than activities (such as photo or video sharing) requiring less time, less technical capacities and less regularity (a blog is interesting if its owner updated it regularly, there is no such constraints on photo sharing sites). And of course, activities requiring only the attention of the users (such as watching a video or reading a blog) and no personal involvement will probably prevail.

Some people interviewed during this study highlighted the fact that it is not because the Internet exists that all individuals will become creators or artists and will have something (interesting or valuable) to say or to share. It is mainly seen as a new way of discovering talents but not as a magic tool which would arouse artistic vocation in each Internet user.

Table 7: Main Web 2.0 related activities in the United States in 2005

% of Internet users who have ever done this	Activity	Survey date
34%	Used the Internet to get photos developed or display photos	September 2005
30%	Rated a product, service or person using an online rating system	September 2005
27%	Shared files from one's computer with others online	May-June 2005
26%	Shared something online that created by him/her-self, such as artwork, photos, stories or videos	December 2005
18%	Taken material found online – like songs, text or images – and remixed it into one's own artistic creation	January 2005
14%	Created or worked on one's own webpage	December 2005
13%	Created or worked on webpages or blogs for others, including friends, groups one belongs to, or for work	December 2005
11%	Used online social or professional networking sites like Friendster or LinkedIn	September 2005
8%	Created or worked on one's own online journal or blog	February-April 2006

Source: Pew Internet & American Life Project Surveys

Nevertheless, even if the use of the Internet does not make people more talented than they are, the Internet and more generally the digital world provide quite affordable, easy-to-use tools and software that makes it easier to develop content and to share it widely. Thanks to digital, it is possible for Mr X or Ms Y to compete directly with the traditional content providers and even on the same platforms.

We can also imagine that people need time to adapt to these new types of services before contributing actively. Firstly they observe what other people are doing before feeling confident enough to engage in UCC activities. A learning process is necessary before becoming active content creators.

This process can involve external means such as reading instructions or asking friends and family to show how it works or can rely on a trial & error approach.

Figure 26: Preferred ways to learn about digital services and products
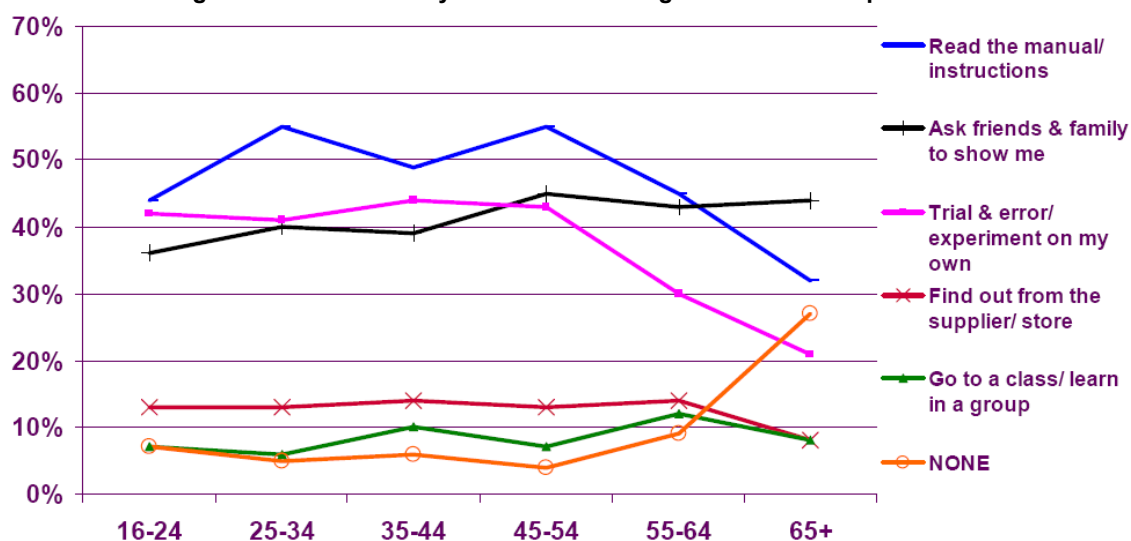
Source: OFCOM - Media Literacy Audit: report on adult media literacy
Base: All UK adults aged 16+ (3244)

Figure 26 concerns all digital media and not only the Internet, so figures would probably be different for the learning process on the Internet.

Anyway, this figure shows a real desire to learn about digital services and products. Under 65, less than 10% of all adults claim they have no interest in learning about digital services and products, but the proportion increases sharply over 65.

According to OFCOM gender plays a major role in the preferred ways of learning. Women favour learning from friends and family (50%, compared to 31% of men) whereas men prefer learning through trial and error (44%, compared to 30% of women).

If we draw a comparison of the actual reach of social media platforms' activities between the European countries covered in the Universal McCann survey and Japan, South Korea and the United States, it appears that:

- The ranking of activities is almost the same whatever the country (i.e. watching videos is the dominant activity everywhere – except in France, Japan and South Korea where reading blogs is more popular – and writing a blog and subscribing to a RSS feed are the less popular activities);

- Reading and writing blogs are more popular in the two Asian countries, and more specifically in South Korea, than in Europe and the USA;

- There is no direct implication from the level of Internet penetration on the actual participation of the effective Internet users. Thus, whereas Romania is one of the European countries in which the Internet penetration rate is the lowest, Romanian Internet users are the most dynamic regarding three out of eight activities: uploading videos, watching videos and downloading podcasts. Internet users from Eastern European countries seem to be actively engaged in UCC activities since the Czech Republic, Hungary and Poland are the other European leading countries respectively for uploading photos, belonging to a social network and subscribing to a RSS feed.

- However, in percentage of the total population, the Netherlands and South Korea show the highest rates of reach of social media platforms' activities due to their high Internet penetration rates, whereas Hungary and Greece show the lowest rates (both in terms of Internet penetration rates and in terms of reach).

Favouring the roll out of the Internet among European households will be a key driver for amateur content creation and involvement in a participative Internet since it will allow people showing an interest in social Internet usages to take part in this increasing phenomenon.

Table 8: Comparison of the actual reach of social media platforms' activities by country (March 2008)

	Reading blogs		Writing blogs		Belonging to a social network		Uploading photos		Uploading videos		Watching videos		Podcasting		Subscribing to a RSS feed	
	% Internet users	% total population	% Internet users	% total population	% Internet users	% total population	% Internet users	% total population	% Internet users	% total population	% Internet users	% total population	% Internet users	% total population	% Internet users	% total population
Austria	59.7%	14.9%	28.6%	7.2%	47.4%	11.5%	51.0%	12.7%	36.9%	9.2%	80.2%	20.1%	37.6%	9.4%	28.8%	7.2%
Czech Republic	69.8%	15.1%	18.2%	9.5%	35.5%	12.7%	59.4%	15.9%	26.6%	6.4%	84.0%	22.3%	43.2%	6.4%	15.0%	5.4%
Denmark	60.8%	24.6%	23.2%	9.4%	47.5%	21.9%	31.9%	12.9%	25.7%	10.4%	84.3%	34.1%	38.3%	15.5%	20.4%	8.2%
France	78.0%	21.7%	31.5%	10.8%	33.1%	11.4%	35.5%	10.5%	19.5%	6.7%	63.4%	21.7%	34.2%	11.7%	25.7%	8.8%
Germany	55.4%	21.2%	27.8%	10.7%	43.3%	15.6%	42.5%	16.3%	33.1%	12.7%	77.1%	29.6%	34.8%	13.3%	27.0%	10.4%
Greece	72.2%	13.3%	25.4%	4.7%	41.4%	7.8%	46.2%	8.5%	37.2%	6.9%	86.0%	15.9%	34.8%	6.4%	28.8%	5.3%
Hungary	50.5%	10.2%	7.8%	2.0%	79.9%	18.6%	31.8%	7.8%	16.3%	4.0%	86.5%	21.2%	26.6%	6.5%	14.7%	3.6%
Italy	78.9%	23.2%	33.3%	9.8%	38.6%	12.0%	34.8%	10.2%	29.9%	8.8%	78.3%	23.0%	25.1%	7.4%	24.5%	7.2%
Netherlands	67.7%	40.6%	27.1%	16.2%	61.4%	36.4%	46.7%	28.0%	30.5%	18.3%	79.2%	47.5%	26.3%	15.8%	17.2%	10.3%
Poland	72.3%	10.6%	30.3%	4.4%	76.8%	11.2%	55.0%	8.1%	36.0%	5.3%	90.5%	13.3%	47.3%	6.9%	47.7%	7.0%
Romania	69.7%	11.1%	21.3%	3.4%	62.5%	10.0%	56.3%	9.0%	47.3%	7.6%	92.5%	14.8%	64.4%	10.3%	27.3%	4.4%
Spain	77.8%	34.3%	41.4%	18.2%	43.2%	19.7%	46.0%	20.3%	30.8%	13.6%	86.6%	38.3%	51.0%	22.5%	33.6%	14.8%
UK	65.8%	32.1%	25.3%	12.3%	59.6%	29.1%	48.7%	23.8%	31.9%	15.6%	84.6%	41.3%	42.2%	20.6%	24.9%	12.2%
USA	60.3%	33.2%	26.4%	14.5%	43.0%	23.4%	47.1%	25.9%	25.3%	13.9%	74.2%	40.9%	29.5%	16.2%	18.6%	10.2%
Japan	84.4%	33.1%	47.3%	18.5%	41.7%	12.2%	21.0%	8.2%	20.4%	8.0%	68.1%	26.7%	30.2%	11.8%	31.4%	12.3%
South Korea	92.1%	39.6%	71.7%	30.5%	70.3%	23.7%	54.0%	23.0%	43.6%	18.6%	86.5%	37.1%	49.2%	21.3%	44.4%	18.9%
Global	70.2%	n.a.	35.2%	n.a.	58.8%	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.

In blue: highest rate / in red: lowest rate

Source: According to Universal McCann, Power to the people – Social Media Tracker Wave 3 (March 2008)

Figure 27: Comparison of the actual reach of social media platforms' activities by country

March 2008, in percentage of Internet users
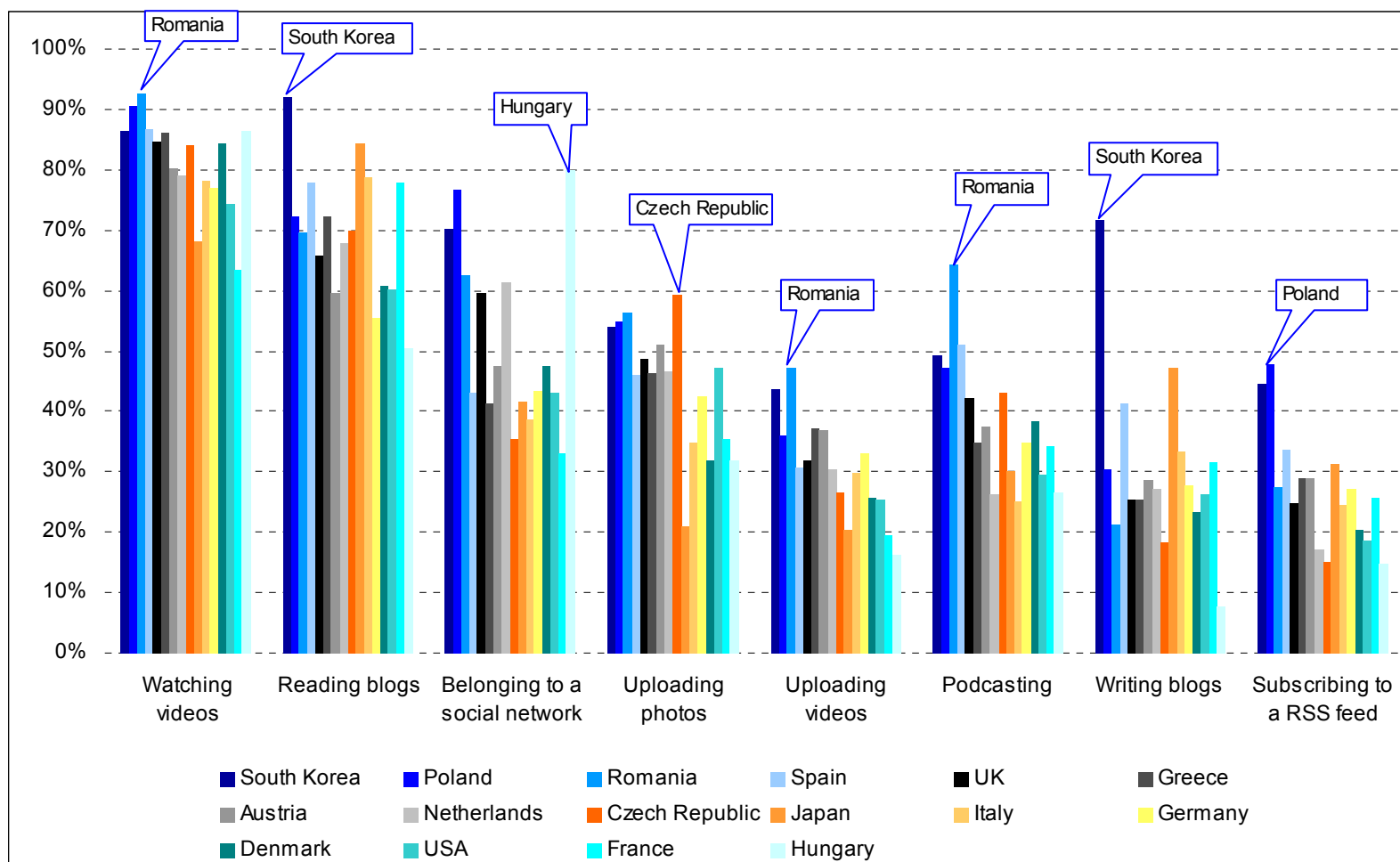
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Figure 28: Comparison of the actual reach of social media platforms' activities by country

March 2008, in percentage of total population
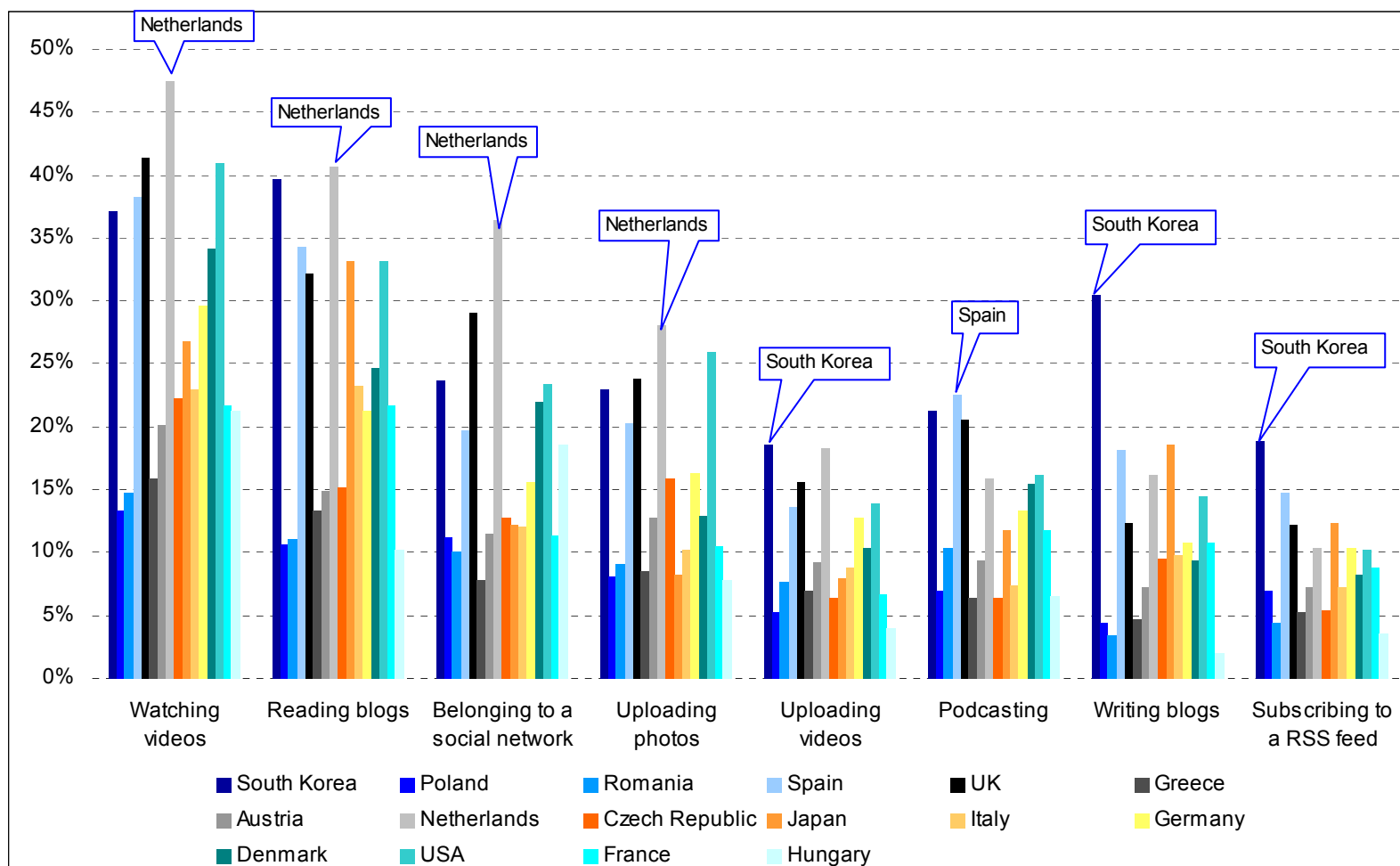
Source: According to Universal McCann, Power to the people – Social Media Tracker Wave 3 (March 2008)

1.4.3.   Reading blogs

Reading blogs has become one of the most common activity among active Internet users worldwide, demonstrating the great interest for this kind of content:

- On average, 70.2% of all the active Internet users say they read a blog;

- Reading blogs is especially popular in Asian and South American countries. The first European countries are Italy, France and Spain (respectively 10th, 11th and 12th of the Universal McCann ranking);

- English-speaking countries seem less fond of reading blogs since UK, Hong Kong, Australia, the USA and Canada are all in the last 10 countries of this ranking.

Figure 29: Percentage of active Internet users who have ever read a blog, by country

Source: Universal McCann, Power to the people – Social Media Tracker Wave 3 (March 2008)

The global growth in reading blogs is steady: 54% of active Internet users were reading blogs in September 2006, 66% in June 2007 and 77% in March 2008.

However, in some countries, the growth is already flat, such as in South Korea (91% in Wave 2, 92% in Wave 3), in China (85% in Wave 2 and 88% in Wave 3) and in France (77% in Wave 2 and 78% in Wave 3). The rates are even decreasing in some countries such as Italy (79% in Wave 1, 76% in Wave 2 and 79% in Wave 3), Russia (73% in Wave 1, 72% in Wave 2 and 71% in Wave 3) and the USA (62% in Wave 1, 61% in Wave 2 and 60% in Wave 3).

Moreover, in terms of frequency of usage, reading blogs has become a very regular activity:

- On average, 71% of all blogs' readers read blogs at least every week (40% weekly reach, 31% daily reach);

- Users in Brazil, Japan, China and South Korea are particularly addicted since, respectively, 52%, 50%, 46% and 45% of blogs' readers in these countries read a blog every day. At the opposite, only 17% of German blogs' readers have a daily reading.

It seems that, in few years, reading blogs has become as popular (or even more) as reading newspapers and that the market is close to reaching a kind of threshold.

Figure 30: Evolution of blog readership by country

Blog readership Waves 1-3
"Thinking about using the Internet, which of the following have you ever done?" – "Read blogs / weblogs" Active Internet Universe
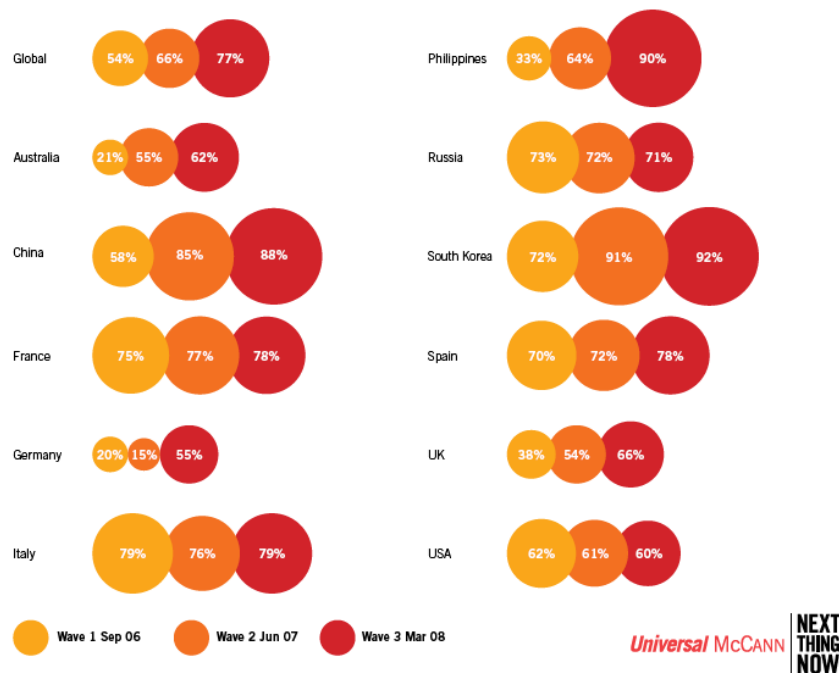
Global	54% 66% 77%	Philippines	33% 64% 90%
Australia	21% 55% 62%	Russia	73% 72% 71%
China	58% 85% 88%	South Korea	72% 91% 92%
France	75% 77% 78%	Spain	70% 72% 78%
Germany	20% 15% 55%	UK	38% 54% 66%
Italy	79% 76% 79%	USA	62% 61% 60%

Wave 1 Sep 06   Wave 2 Jun 07   Wave 3 Mar 08

Universal McCANN   NEXT THING NOW

Source: Universal McCann, Power to the people – Social Media Tracker Wave 3 (March 2008)

Figure 31: Frequency of blog readership

Frequency of readership – key markets
"Thinking about using the Internet, how often do you do any of the following?" – "Read blogs / weblogs" Blog Readers Only

% Read	Daily reach	Weekly reach	Monthly reach	Less often
Global	31%	40%	16%	13%
Brazil	52%	32%	7%	9%
China	46%	43%	6%	5%
France	28%	38%	19%	15%
Germany	17%	41%	21%	21%
India	39%	42%	10%	9%
Italy	37%	40%	12%	11%
Japan	50%	32%	12%	6%
Russia	29%	38%	22%	11%
South Korea	45%	39%	13%	3%
Spain	31%	40%	19%	10%
UK	20%	40%	22%	18%
USA	23%	42%	19%	16%

Daily reach   Weekly reach   Monthly reach   Less often
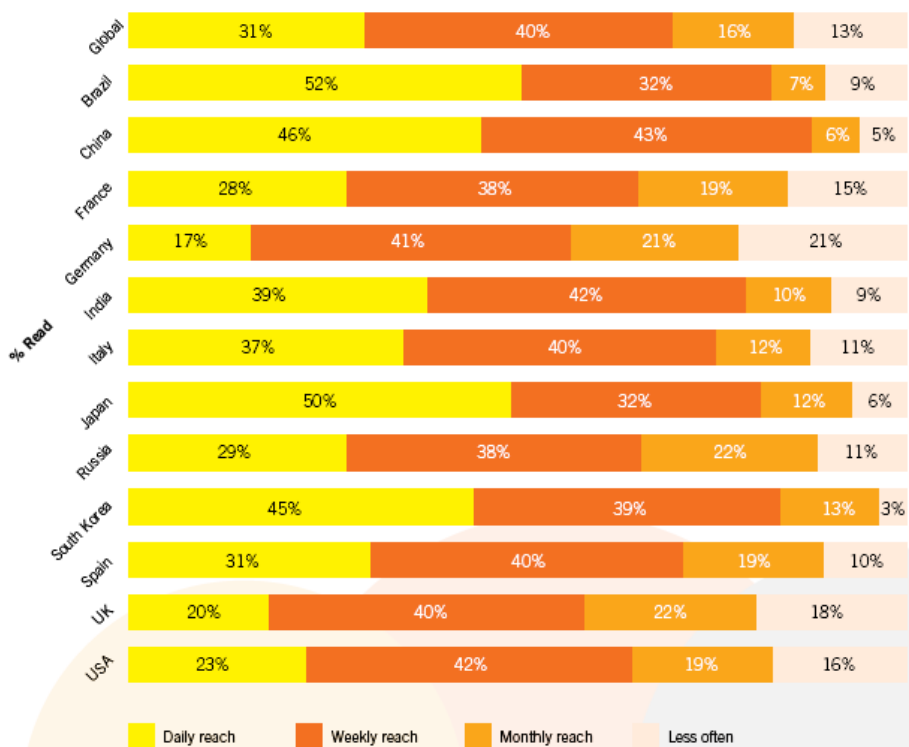
Source: Universal McCann, Power to the people – Social Media Tracker Wave 3 (March 2008)

1.4.4.   Writing blogs

If blogs reading is a really popular activity, blogs writing is quite far from being as popular:

- 35.2% of global Internet users have ever started to write a blog;

- Writing one's own blog is essentially popular in countries in which reading blogs is popular, that is to say in Asian and South American countries. Spain is the first European countries in this ranking and reaches the 10th place. Italy and France rank respectively 14th and 15th;

- It seems that cultural aspects play a great role in the desire or need of Internet users to engage in blogs writing, what explains the wide disparity between countries: in South Korea, Taiwan and China around 70% of all active Internet users have ever started their own blog, whereas less than 8% of all Hungarian active Internet users have ever started their blog.

Figure 32: Percentage of active Internet users who have ever start a blog, by country

Source: Universal McCann, Power to the people – Social Media Tracker Wave 3 (March 2008)

Except in France, where the percentage of Internet users having started their blog stays equal between the Waves 2 and 3 of the Universal McCann surveys, the percentage of active Internet users having started their blog is increasing everywhere else.

Beyond the creation of their own blogs, Internet users are quite successful in updating it regularly.

Thus, 60% of global blog writers put content on their blogs either daily (30%) or weekly (30%), whereas 13% do this monthly and 27% less often than that.

There are huge differences according to the countries:

- In South Korea, 45% of blogs writers are putting content on their blogs daily, in France 38% do the same and in Brazil 37%;

- In Germany and China, users are mostly used to writing on a weekly base (respectively 47% and 45%);

- In Japan and in the UK, the majority of blog writers update their blogs less often than monthly (respectively 57% and 50%).

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Figure 33: Evolution of blog writing by country

Blog writing Waves 1-3

"Thinking about using the Internet, which of the following have you ever done?" – "Start my own blog / weblog" Active Internet Universe
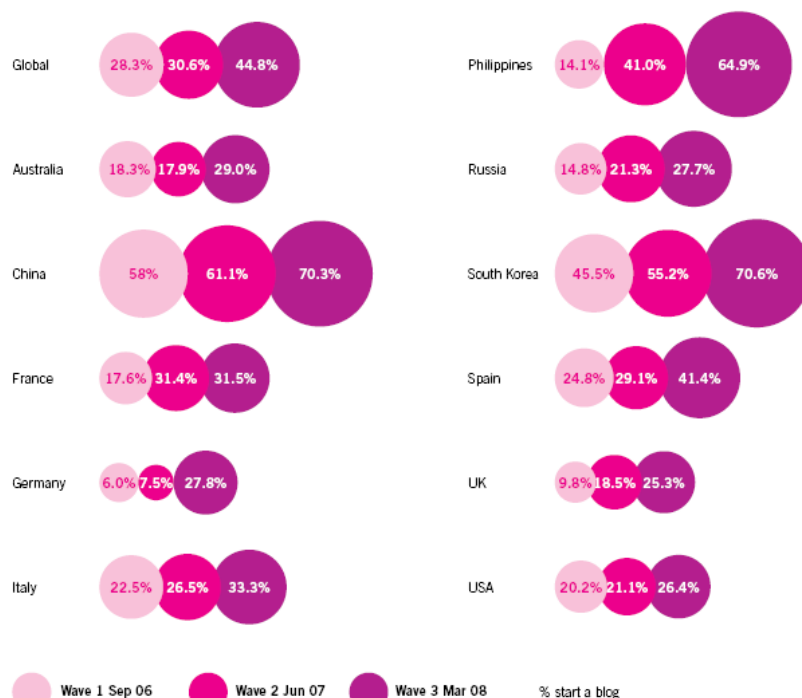
Global	28.3%	30.6%	44.8%		Philippines	14.1%	41.0%	64.9%
Australia	18.3%	17.9%	29.0%		Russia	14.8%	21.3%	27.7%
China	58%	61.1%	70.3%		South Korea	45.5%	55.2%	70.6%
France	17.6%	31.4%	31.5%		Spain	24.8%	29.1%	41.4%
Germany	6.0%	7.5%	27.8%		UK	9.8%	18.5%	25.3%
Italy	22.5%	26.5%	33.3%		USA	20.2%	21.1%	26.4%

Wave 1 Sep 06   Wave 2 Jun 07   Wave 3 Mar 08   % start a blog

Power to the people - Social Media Tracker Wave 3

Source: Universal McCann, Power to the people – Social Media Tracker Wave 3 (March 2008)

Figure 34: Frequency of blog writing

Frequency of writing

"Thinking about using the Internet, how often do you do any of the following?" – "Read blogs / weblogs" Blog Writers Only

% Write	Daily reach	Weekly reach	Monthly reach	Less often
Global	30%	30%	13%	27%
Brazil	37%	24%	6%	33%
China	33%	45%	9%	13%
France	38%	28%	16%	18%
Germany	14%	47%	14%	25%
India	23%	39%	12%	26%
Japan	20%	14%	9%	57%
Russia	24%	25%	22%	29%
South Korea	45%	30%	16%	9%
Spain	30%	25%	17%	28%
UK	15%	24%	11%	50%
USA	20%	25%	15%	40%

Daily reach   Weekly reach   Monthly reach   Less often   *Universal* McCANN

Source: Universal McCann, Power to the people – Social Media Tracker Wave 3 (March 2008)

The trends observed by the blog search service Technorati are quite similar, i.e. a real interest in creating one's own blog, a steady growth in the field of blogs' creation but a slowing down in both the creation and the total number of active blogs.

In June 2008, Technorati had indexed more than 133 million blogs with a daily increase of 70.000. Just one year before, Technorati was tracking 70 million blogs and announced a daily increase of 120,000 blogs. So, even if the growth remains strong, the rhythm in blogs' creation is obviously slowing down.

Figure 35: Number of blogs created from March 2003 to March 2007
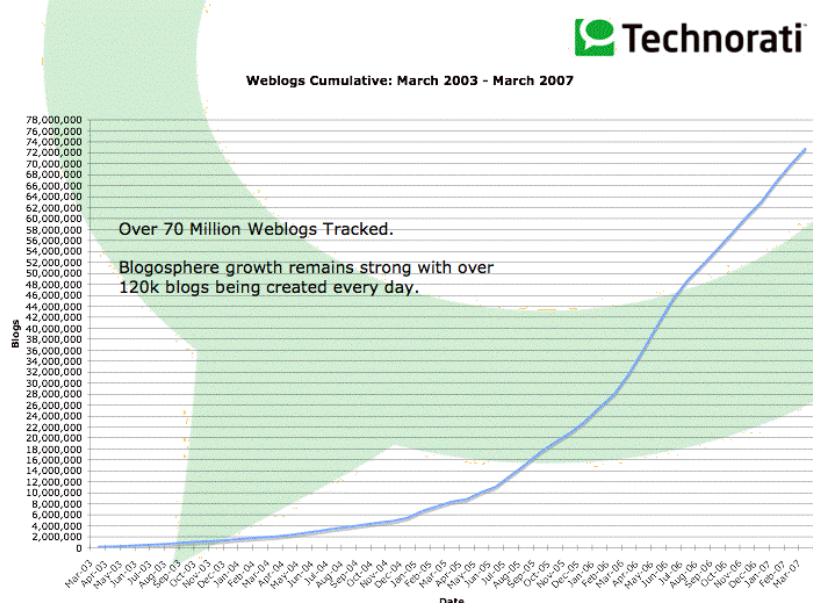
Source: Technorati - April 2007

Thus, whereas the total "Blogosphere" doubled every six months between Q2 2004 and Q2 2006, it now requires a full year before doubling the blogosphere.

Figure 36: Evolution of the doubling's rhythm of the Blogosphere
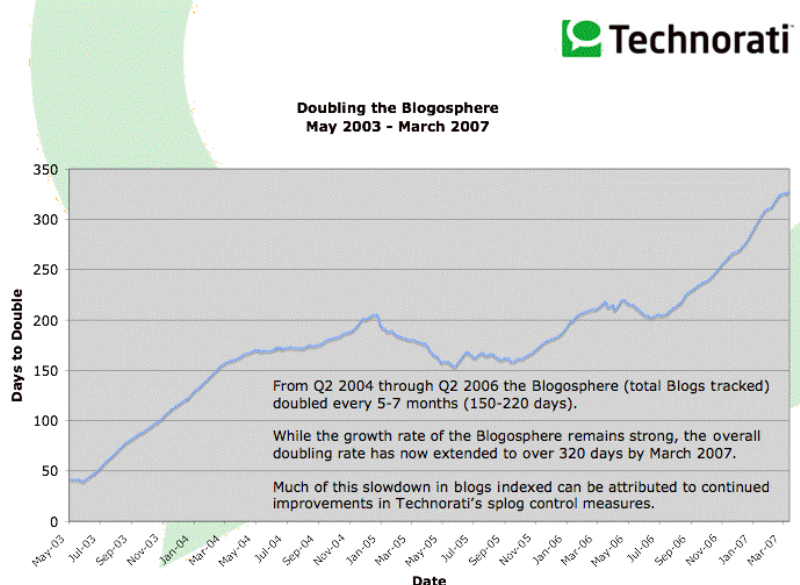
Source: Technorati - April 2007

If the total number of active blogs is still growing, the growth rate is also slowing down. In percentage of the total blogs tracked by Technorati, the part of the active blogs is decreasing: 36% of tracked blogs were active in May 2006, only 21% were active in March 2007. On average, during March 2007, Technorati registered 1.5 million posts per day, i.e. more than 58,000 posts per hour. The figures felt to 900,000 posts per day in June 2008.

Figure 37: Evolution of the number of active blogs
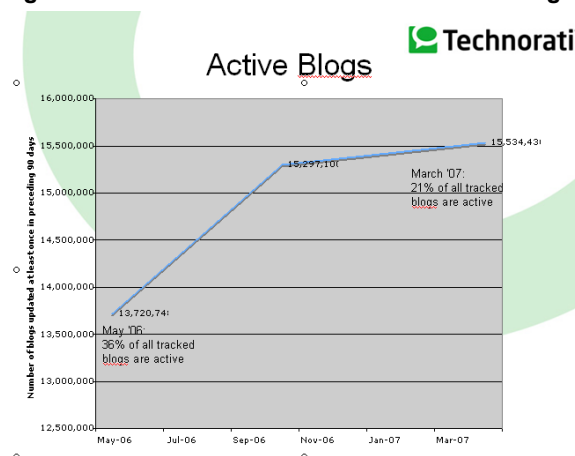
Source: Technorati - April 2007

If blogging is above all a personal activity – almost 2/3 of bloggers manage a personal blog – near 30% of blog writers say they write about news and current affairs, 13.5% about business (general news and opinion) and 12.1% about business news (relevant to their current job). In a certain way, these could be assimilated to Citizen Journalism activities. Various other topics are also blogged about such as science, sport, technology, music, gaming or film and TV. Blogs are thus far more than "just" the online version of the previous personal diaries. They also give the opportunity to share one's knowledge, one's know-how or one's passion.

Figure 38: Percentage of topics blogged about

Source: Universal McCann, Power to the people – Social Media Tracker Wave 3 (March 2008)

Besides, bloggers do not just post texts, they develop real multimedia blogs integrating photos, videos and music and also connected to the rest of the Internet sphere (through websites recommendation, content coming from other websites or links towards other content sites)

Figure 39: Type of content posted in blogs

Content posted

"When writing your blog, which of the following do you post?" Blog Writers Only

Photos 60.6% | Videos 28.8% | Recommended websites 38.9% | Favourite / currently listened to music 34.5% | Upload music 24.3% | Stories from other blogs 27.5% | (e.g applications that display other site content e.g photos from a photo sharing site) 17.6% | Opinions on products and brands 34.1% | Other 6.6%

% Contest posted (blog writers only)
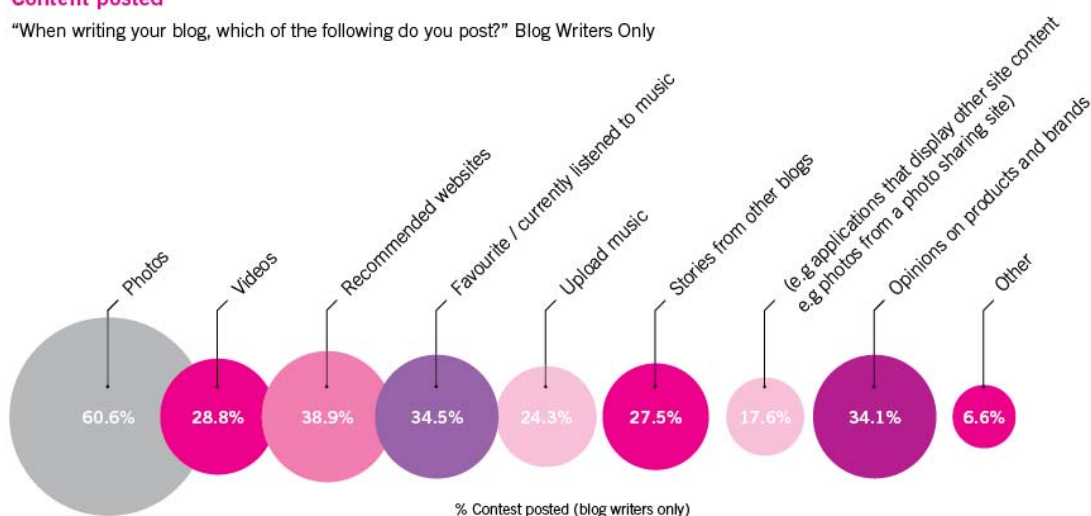
Source: Universal McCann, Power to the people – Social Media Tracker Wave 3 (March 2008)

In terms of languages, two clearly dominates the market of blogs writing: Japanese and English. Except for this latter, European languages are weakly represented on the global blogosphere. Even if Spanish, or French or Portuguese are spoken worldwide, none of them represents more than 3% of languages used in posts. Technorati tracked blogs in 81 languages in June 2008.

Figure 40: Languages used in posts
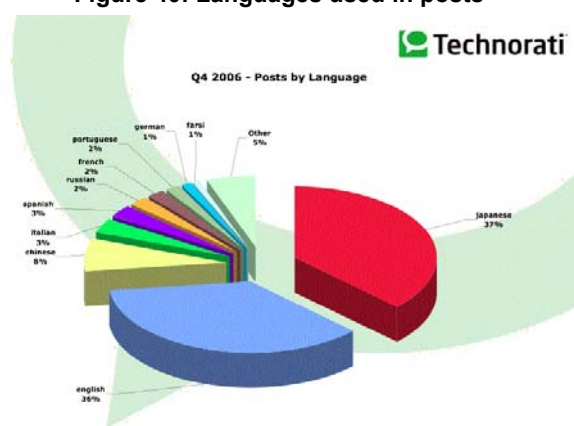
Source: Technorati - April 2007

1.4.5. Belonging to a social network

Participation to a social network is also a popular activity among active Internet users:

- Almost 60% of all active Internet users have created their profile on a social networking sites;
- The presence on a social network is especially high in emerging markets and in markets with an important emigration rate. At the opposite, it is quite low in most Western European countries as well as in the USA, except in the Netherlands and in the UK.

Figure 41: Percentage of active Internet users who have created their profile on a social network, by country

Belong to a Social Network Wave3

"Thinking about using the Internet, which of the following have you ever done?" – "Create a profile on a new social network" Active Internet Universe
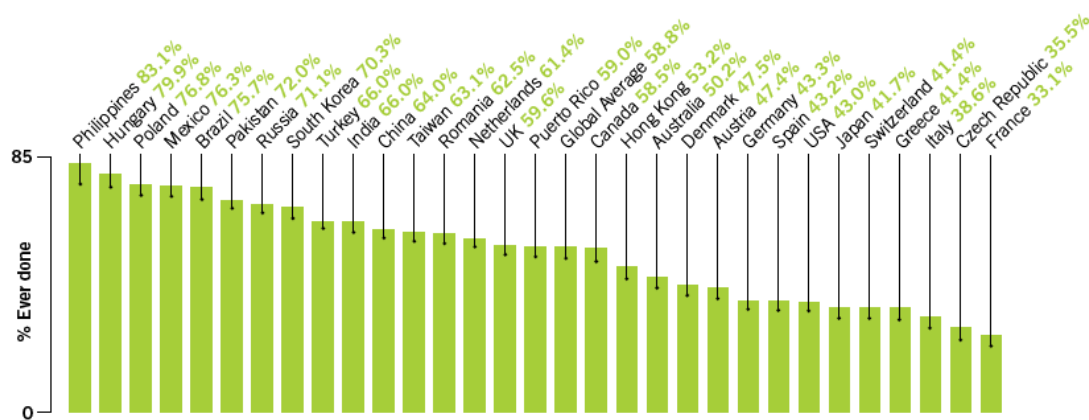
Source: Universal McCann, Power to the people – Social Media Tracker Wave 3 (March 2008)

Both the Universal McCann survey and a Forrester Research study highlight the specificities of Netherlands and of UK in comparison with other European countries.

Figure 42: Percentage of online adults belonging to a social network

The Dutch and Brits love joining networks
Joiners as a percentage of online adults

France 4%
Germany 12%
Italy 10%
Netherlands 26%
Spain 5%
Sweden 21%
UK 25%

9 Entire contents © 2006 Forrester Research, Inc. All rights reserved.
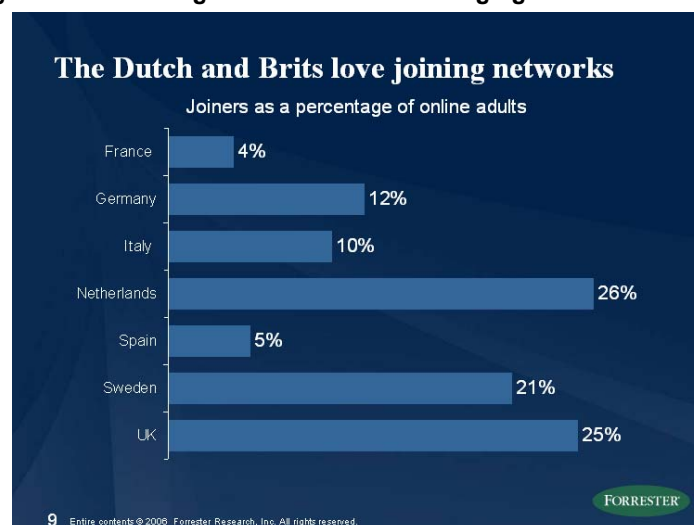
Source: Forrester Research, European Social Computing, 2006

Active Internet users are increasingly tempted to participate in social networks whatever the country. All countries show quite impressive growth rates except the USA (40% in Wave 2 and 42.5% in Wave 3) and, to a lesser extent, Spain (39.5% in Wave 2 and 44.6% in Wave 3). In the other major Western European countries, the growth stays strong.

Except in Japan and Russia, where users in their majority manage their profile only monthly or less often (respectively 65% and 61%), everywhere else users visit the social platforms at least weekly or even daily (57% of Brazilian users manage their profile every day).

Visiting social platforms and updating one's pages have also become regular and frequent activities for all active users in a quite short period of time.

Figure 43: Evolution of the percentage of Internet users belonging to a social network, by country

Belong to a Social Network Waves 1-3
"Thinking about using the Internet, which of the following have you ever done?" – "Create a profile on a new social network" Active Internet Universe

	Wave 1	Wave 2	Wave 3		Wave 1	Wave 2	Wave 3
Global	27.3%	36.2%	57.5%	Russia	23.1%	41.7%	74.2%
France	16.0%	10.3%	33.1%	Spain	37.3%	39.5%	44.6%
Germany	22%	19%	40.6%	UK	26.9%	27.4%	59.7%
Italy	11.3%	19.1%	40.8%	USA	39.2%	40.0%	42.5%

Wave 1 Sep 06 **Wave 2 Jun 07** **Wave 3 Mar 08**
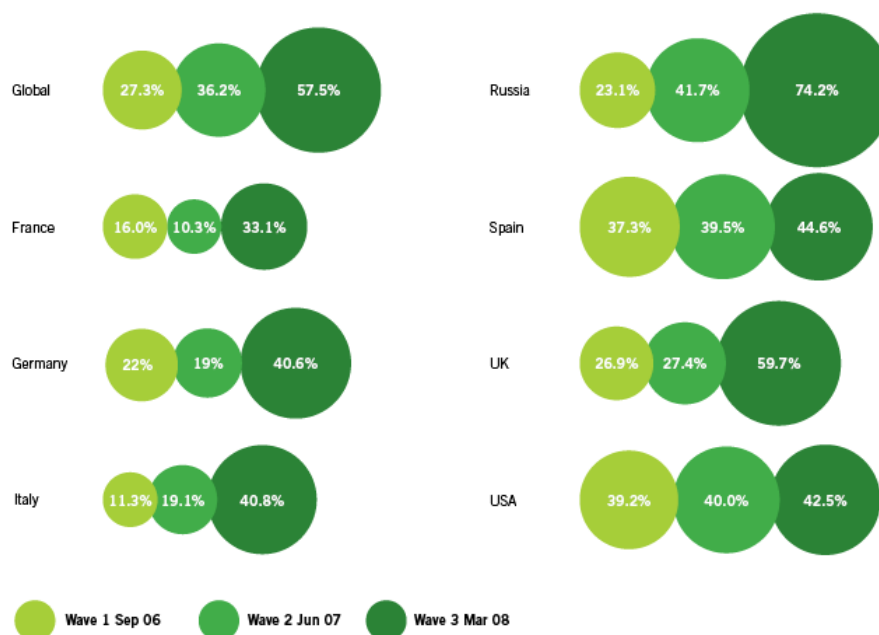
Source: Universal McCann, Power to the people – Social Media Tracker Wave 3 (March 2008)

Figure 44: Frequency of profile managing

Frequency of updating Social Network page
"Thinking about using the Internet, how often do you do any of the following?" –
"Manage your social network page" – Social Network users only
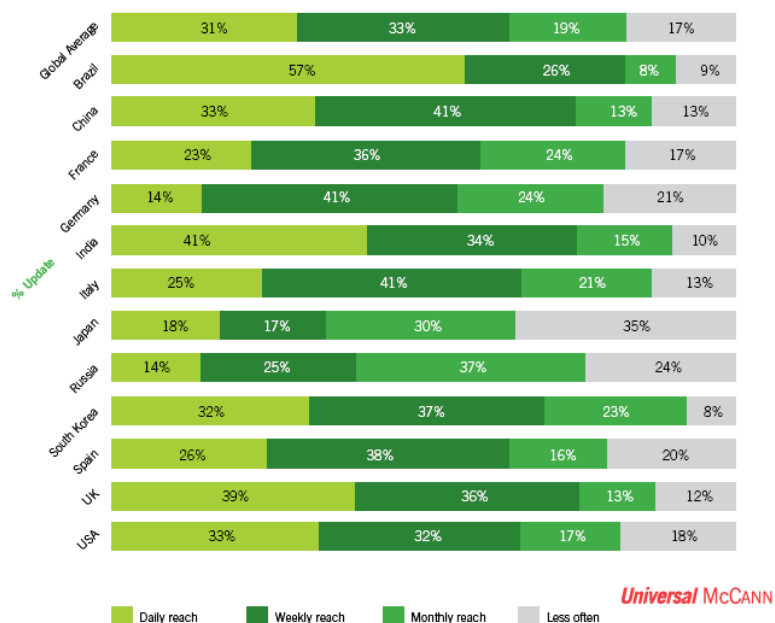
% Update	Daily reach	Weekly reach	Monthly reach	Less often
Global Average	31%	33%	19%	17%
Brazil	57%	26%	8%	9%
China	33%	41%	13%	13%
France	23%	36%	24%	17%
Germany	14%	41%	24%	21%
India	41%	34%	15%	10%
Italy	25%	41%	21%	13%
Japan	18%	17%	30%	35%
Russia	14%	25%	37%	24%
South Korea	32%	37%	23%	8%
Spain	26%	38%	16%	20%
UK	39%	36%	13%	12%
USA	33%	32%	17%	18%

Universal McCANN

Source: Universal McCann, Power to the people – Social Media Tracker Wave 3 (March 2008)

According to the Mediascope Europe Survey, the main reason why Internet users do not participate in a social networking site is the lack of relevancy of these kinds of services (26%), followed by privacy issues (12%). Finally, 7% of Internet users think that this is too complicated and 3% that it is for youngsters.

Figure 45: Social networking: Relevance is key

Source: EIAA Mediascope Europe 2007
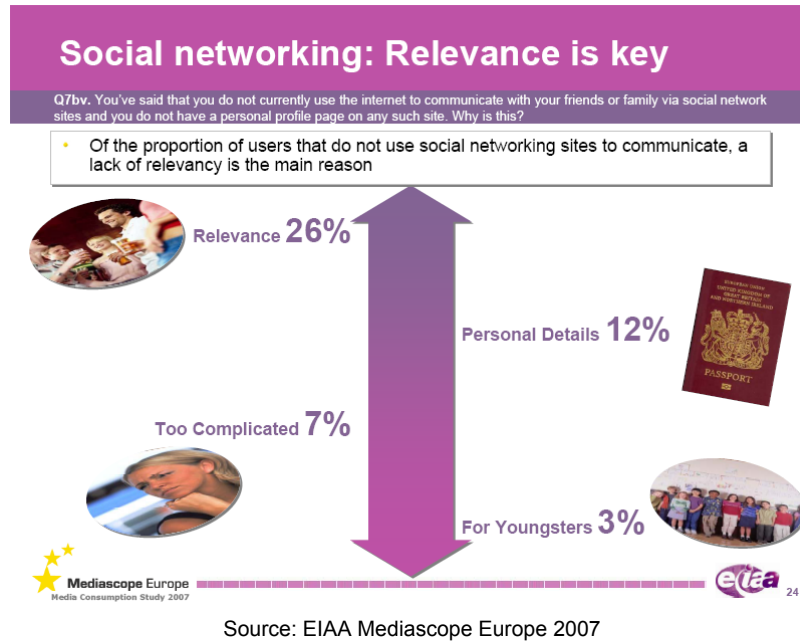
In terms of content, users post on social networks a wide variety of content. The main reason why people belong to a social network is obviously for maintaining or developing relationships with friends and family, but this gives the opportunity to post content such as photos (55.1%), videos (21.9%) or applications (23.3%). It also gives the opportunity to promote a band or to share one's musical tastes.

Figure 46: Kind of content posted on social networks
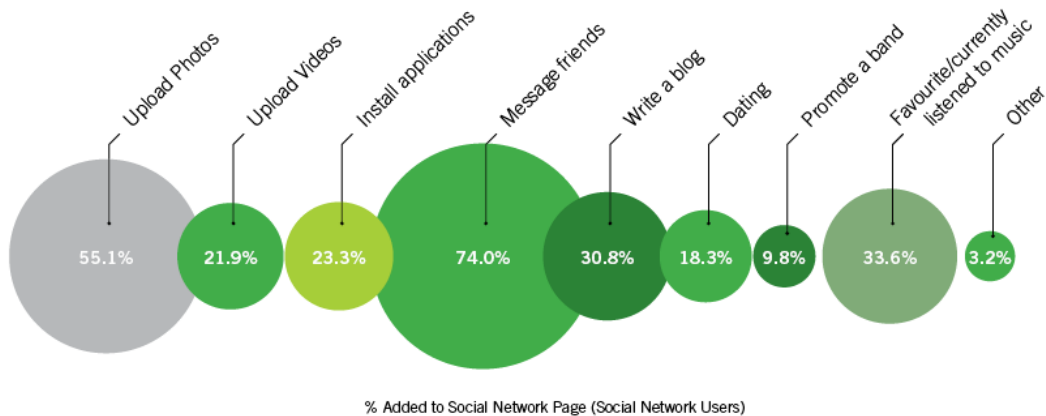
Source: Universal McCann, Power to the people – Social Media Tracker Wave 3 (March 2008)

1.4.6. Sharing content

Uploading photos: the most popular content created by users

In terms of content uploaded by the Internet users, photos are the most popular thanks to the wide spreading of digital cameras, the increase in bandwidth, the development of photo sharing sites and of storage capacities. Photos are of course shared via specialised websites, but are also uploaded in the framework of blogs creation or on social networks' profiles (cf. previously)

Asian and South American countries count the most active photos sharers. In Europe, Internet users from Eastern countries seem to be fonder of photos uploading than in the Western countries. This is also to be linked to the fact that, according to GfK, the growth in digital camera sales is far more important in the Eastern European countries (+29% in the first six months of 2008) than in the Western countries (+5%). In the Universal McCann ranking, the Czech Republic, Romania and Poland are the top 3 European countries and are respectively 9th, 10th and 11th. It is to notice that Japan is the last country in this ranking: only 21% of Japanese active Internet users have ever uploaded a photo, whereas 86.4% of users in Philippines have ever done so.

Figure 47: Percentage of active Internet users who have uploaded photos to a photo sharing site, by country
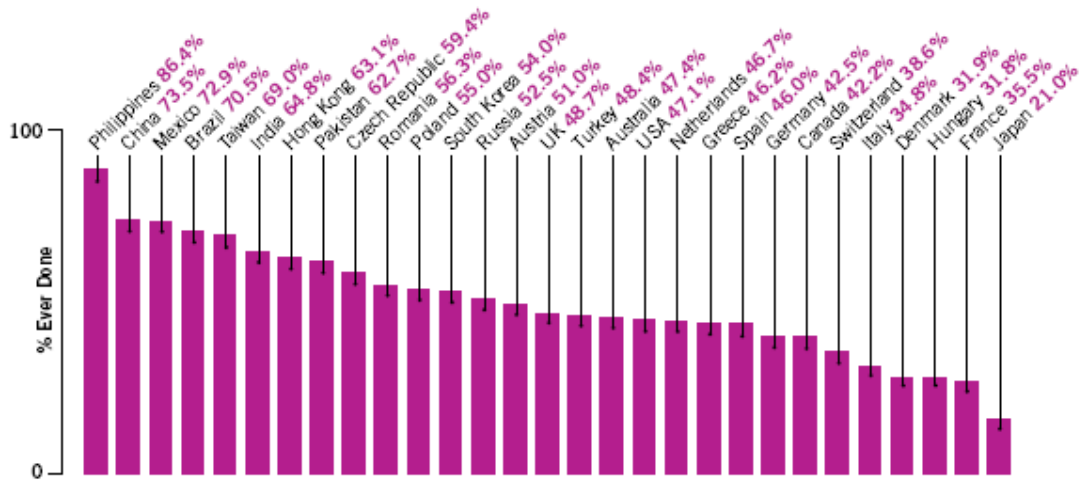
Source: Universal McCann, Power to the people – Social Media Tracker Wave 3 (March 2008)

Photo sharing is rarely a daily activity. On average, only 17% of people uploading photos do it daily. However in Brazil, 36% of photos sharers upload photos on a daily basis. If not daily, people upload nevertheless their photos quite frequently since one third does it on a weekly basis, one quarter on a monthly basis and another quarter less often than that. Japanese and Germans are the less active since more than one third of them upload photos less often than monthly.

Figure 48: Frequency of photos uploading
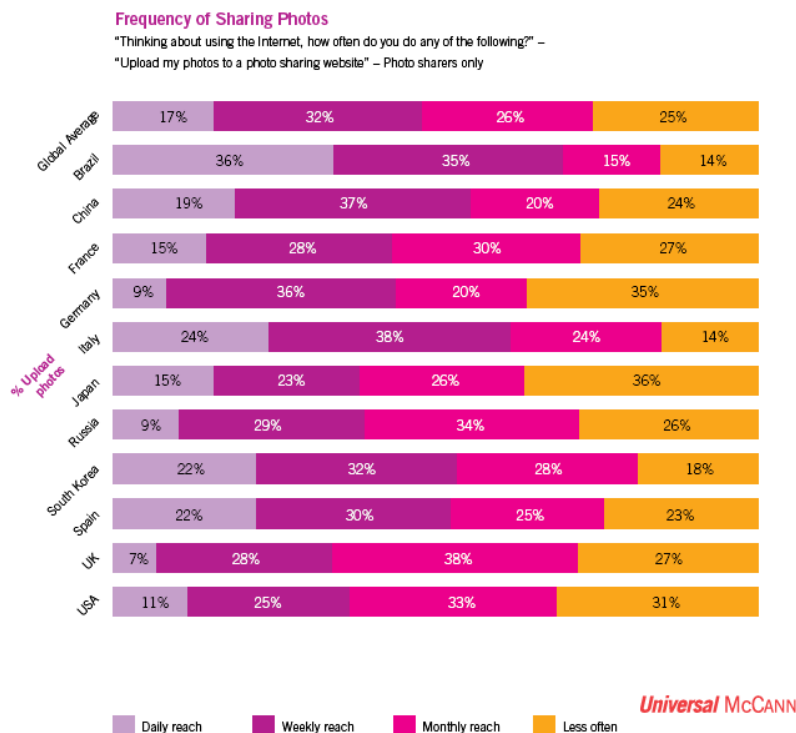
Source: Universal McCann, Power to the people – Social Media Tracker Wave 3 (March 2008)

Uploading videos

The top 8 countries for videos uploading and for photos uploading count exactly the same countries. The main difference between the two rankings is in the percentage of active users, which is a little higher for photo sharing than for video.

Figure 49: Percentage of active Internet users who have uploaded videos to a video sharing site, by country

Source: Universal McCann, Power to the people – Social Media Tracker Wave 3 (March 2008)

If video sharers are less numerous than photo sharers, they are however more active, since 21% of them upload videos on a daily basis and 33% on a weekly basis. Brazilians and Italians are particularly active since respectively 36% and 31% of them upload videos daily. On a weekly basis, Chinese and Indians are also quite frequent users since more than two thirds of them upload videos at least weekly. At the opposite, less active users can be found in the UK and in Germany, one third of them uploading videos less often than monthly.

Figure 50: Frequency of videos uploading

Frequency of uploading videos
"Thinking about using the Internet, how often do you do any of the following?" –
"Upload my videos to a video sharing website" – Video sharers only

	Daily reach	Weekly reach	Monthly reach	Less often
Global	21%	33%	21%	25%
Brazil	36%	31%	14%	19%
China	26%	41%	13%	20%
France	17%	34%	21%	28%
Germany	10%	40%	17%	33%
India	27%	42%	16%	15%
Italy	31%	32%	22%	15%
Japan	25%	22%	28%	25%
Russia	19%	34%	24%	23%
South Korea	22%	33%	23%	22%
Spain	26%	37%	18%	19%
UK	8%	29%	29%	34%
USA	18%	33%	21%	28%
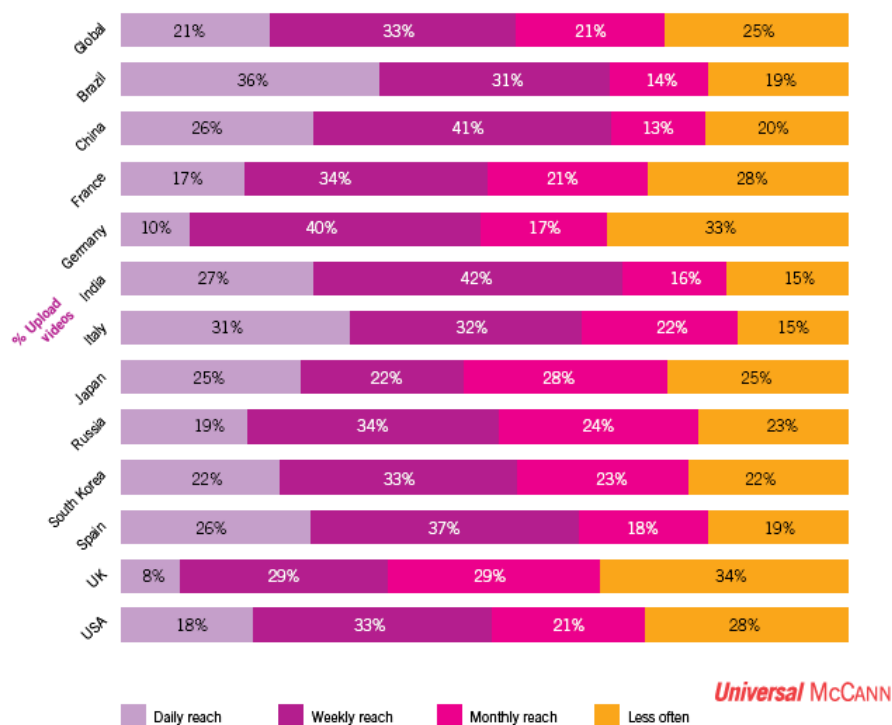
Universal McCANN

Source: Universal McCann, Power to the people – Social Media Tracker Wave 3 (March 2008)

1.4.7. Consuming content

Watching videos

Almost all active Internet users have already watched videos online, at least 3/4th of them and even 98.6% in the Philippines (except in Japan, Russia and France where the rates are close to two thirds). Of all activities tracked by Universal McCann, watching videos online is the one for which the difference between the highest and the lowest penetration rates are the lowest.

As far as European countries are concerned, the highest rates are found mainly in Eastern countries (Romania 92.5%, Poland 90.5%) and the lowest in Western countries (France 63.4%).

Figure 51: Percentage of active Internet users who have watched videos online, by country

Source: Universal McCann, Power to the people – Social Media Tracker Wave 3 (March 2008)

Watching videos online has experienced a tremendous growth in the past two years. It reached 32% of the Internet users surveyed by Universal McCann in September 2006 and 82.8% in March 2008. In this period, no market has shown signs of slow-down. But, with such penetration rates, growth prospects are limited in most countries.

The results of the Universal McCann survey are confirmed by other studies such as the EIAA Mediascope Europe survey which shows an impressive 150% increase in the percentage of European Internet users watching TV, film or video clips online in 2007 (in comparison with 2006).

A Pew Internet and American Lifestyle Project's survey conducted in the USA on 2 054 American adults between October 24 and December 2, 2007 shows a similar evolution:

- 48% of Internet users said they had ever visited a video-sharing site such as YouTube, i.e. a 46% growth year-to-year (the rate raised at 33% a year ago).

- 15% of respondents said they had used a video-sharing site the day before they were surveyed. A year ago, they were 8%. Thus, on an average day, the number of users of video sites nearly doubled from the end of 2006 to the end of 2007.

This high frequency is also confirmed by the Universal McCann survey, according to which 27% of Internet users watching videos online do it daily and 44% weekly. Only 19% of them watch videos monthly and 10% less often than that. In comparison, in this survey 16% of American users watch videos daily.

Figure 52: Evolution of the percentage of Internet users watching videos online, by country

Watching video clips Waves 1-3

"Thinking about using the Internet, which of the following have you ever done?" – "Watching Video Clips" Active Internet Universe

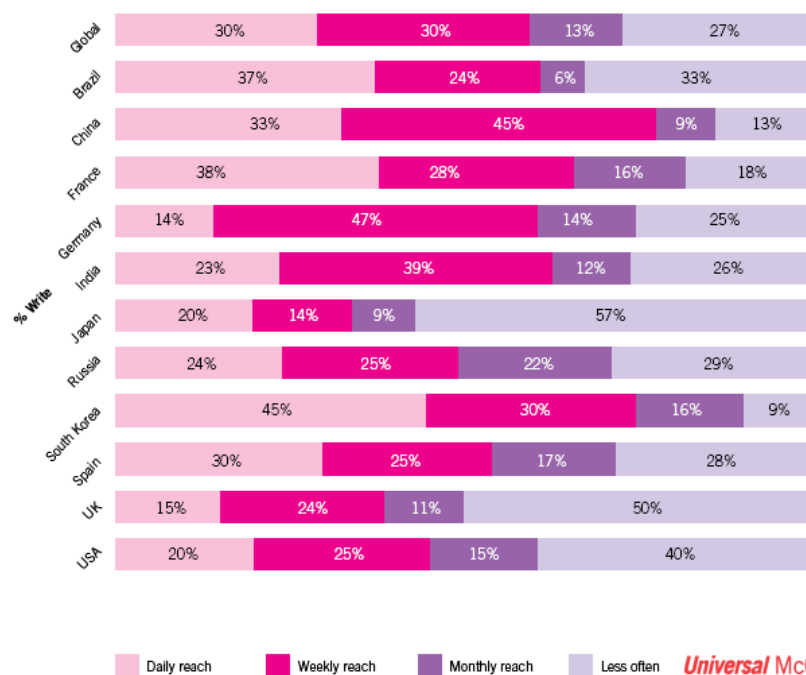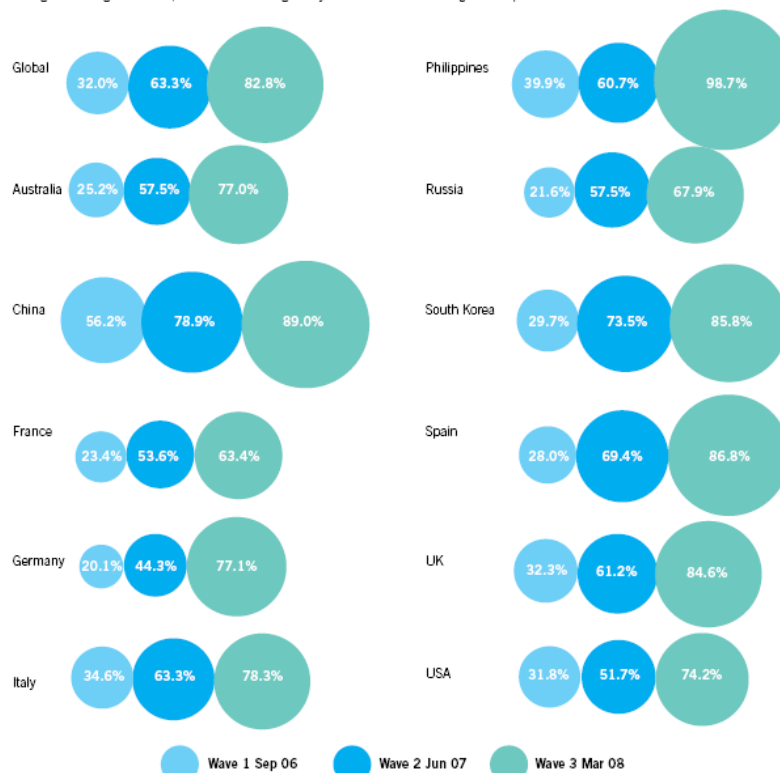|	Wave 1 Sep 06	Wave 2 Jun 07	Wave 3 Mar 08
Global	32.0%	63.3%	82.8%
Australia	25.2%	57.5%	77.0%
China	56.2%	78.9%	89.0%
France	23.4%	53.6%	63.4%
Germany	20.1%	44.3%	77.1%
Italy	34.6%	63.3%	78.3%
Philippines	39.9%	60.7%	98.7%
Russia	21.6%	57.5%	67.9%
South Korea	29.7%	73.5%	85.8%
Spain	28.0%	69.4%	86.8%
UK	32.3%	61.2%	84.6%
USA	31.8%	51.7%	74.2%

Power to the people - Social Media Tracker Wave 3

Source: Universal McCann, Power to the people – Social Media Tracker Wave 3 (March 2008)

Figure 53: Frequency of watching videos

Frequency of watching video clips

"Thinking about using the Internet, how often do you do any of the following?" –
"Watch video clips" – Video clip viewers only
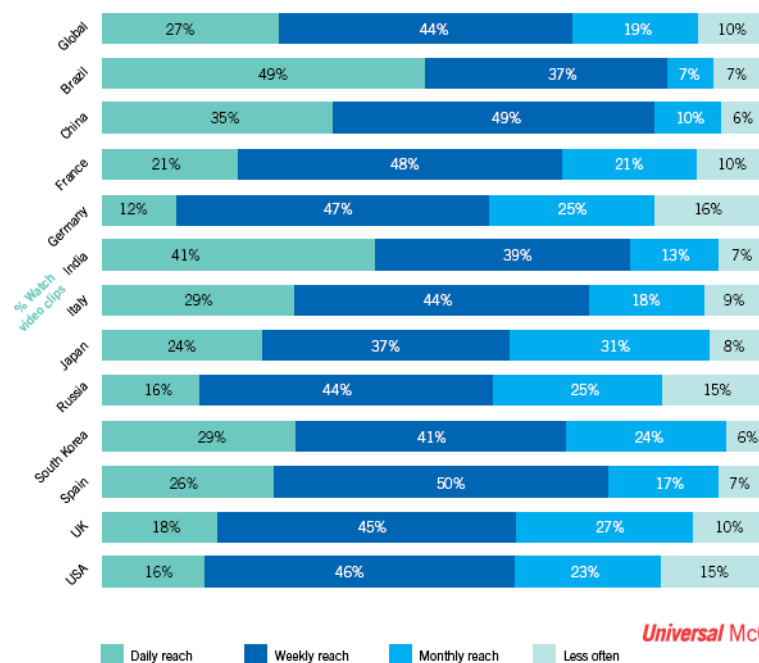
% Watch video clips	Daily reach	Weekly reach	Monthly reach	Less often
Global	27%	44%	19%	10%
Brazil	49%	37%	7%	7%
China	35%	49%	10%	6%
France	21%	48%	21%	10%
Germany	12%	47%	25%	16%
India	41%	39%	13%	7%
Italy	29%	44%	18%	9%
Japan	24%	37%	31%	8%
Russia	16%	44%	25%	15%
South Korea	29%	41%	24%	6%
Spain	26%	50%	17%	7%
UK	18%	45%	27%	10%
USA	16%	46%	23%	15%

Universal McCANN

Source: Universal McCann, Power to the people – Social Media Tracker Wave 3 (March 2008)

According to the Pew Internet and American Lifestyle Project at end 2007, video sharing sites visitors are mainly young men, college graduate, who live in households with a high standard of living. But this phenomenon is progressively spreading to all the population.

Table 9: Demographics of Internet users who have ever visited video sharing websites

Table 1: Demographics of internet users who have ever visited video-sharing websites			
	Dec. 2006	Dec. 2007	% change from the previous year
Total internet users	33%	48%	Increased 45%
Men	40	53	Increased 33%
Women	27	43	Increased 59%
Age 18-29	55	70	Increased 27%
Age 30-49	35	51	Increased 46%
Age 50-64	19	30	Increased 58%
Age 65+	11	16	Increased 45%
Did not graduate from high school	29	39	Increased 34%
High school graduate	28	38	Increased 36%
Some college	36	54	Increased 50%
College graduate or more	37	54	Increased 46%
Live in households earning less than $30,000	32	43	Increased 34%
$30,000-$49,999	33	41	Increased 24%
$50,000-$74,999	28	53	Increased 89%
$75,000 or more	42	60	Increased 43%
Whites	31	45	Increased 45%
African-Americans	41	46	Increased 12%
English-speaking Latinos[+]	42	55	Increased 31%

Source: Pew Internet & American Life Project October 24-Dec. 2, 2007 survey of 1,572 internet users. Margin of error is ±3% for internet users.

+ This survey was only conducted in English.

Source: Pew Internet & American Lifestyle Project October 24- December 2, 2007

The Pew Internet and American Lifestyle Project makes the following analysis to explain the sustained growth: there are more videos on video sharing sites now than there were a year ago. Some of that growth comes from people posting their own amateur videos on such sites. In their survey, they found that 22% of Americans shoot their own videos and that 14% of them post some of that video online. That is more than triple the percentage of video takers who said they had posted videos when they asked a similar question in a survey taken February-April in 2006.

In a previous survey conducted between February 15 to March 7 2007, the Pew Internet explored the conditions in which people do watch videos online. Here are summed up the main findings:

- 62% of users preferred to watch professionally produced videos and 19% videos produced by amateurs;
- 59% watched videos at home, 24% at work and 22% someplace other;
- 57% said they watch online videos with others (family or friends) and 35% that they always watch alone;
- 44% said they never send a link to a video, 28% less often than monthly, 16% monthly, 10% weekly and 3% daily.
- 24% said they never receive a link to a video from someone else, 25% that they receive such links less often than monthly, 25% a few times a month, 16% a few times a week and 9% once or several times a day.

- 89% claimed they never share a link to a video by posting it on a website or a blog.
- 87% said they never rate videos online and 87% that they never post a comment after having seen a video online.
- 93% have never paid to access or download video online (the remaining 7% have ever done).
- 91% have never uploaded a video file online (8% have ever done). The figures were exactly the same in December 2006.

Downloading a podcast

Podcasting experienced difficulties in reaching a large audience among Internet users, but it enjoyed a quick growth in the recent period and its penetration rate has finally taken off everywhere, even if there is an important difference between the leading countries and the latest in this ranking (74.3% of reach in China and only 25.1% In Italy).

40% of people downloading podcast do it weekly and 20% on a daily basis, with only 9% of the German users and 8% of the English users downloading podcasts daily.

Figure 54: Percentage of active Internet users who have downloaded a podcast, by country
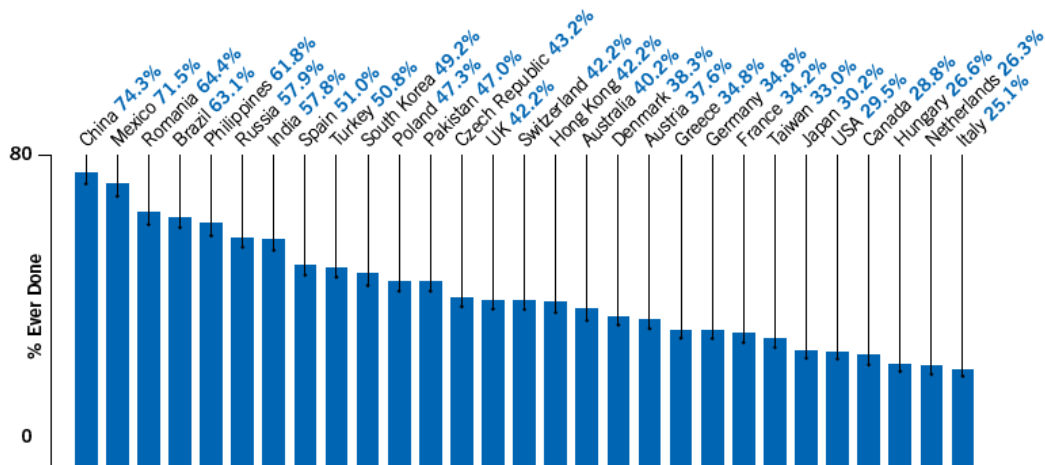
Source: Universal McCann, Power to the people – Social Media Tracker Wave 3 (March 2008)

Figure 55: Evolution of the percentage of Internet users who have downloaded a podcast, by country
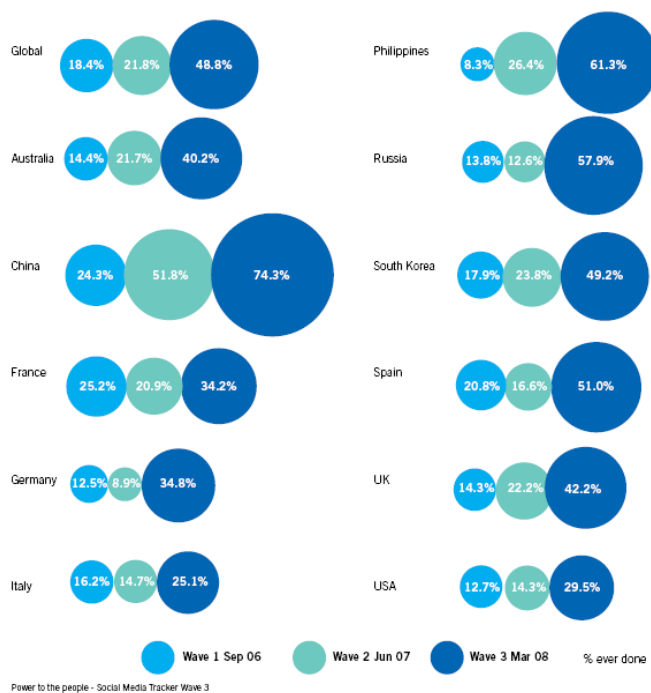
Source: Universal McCann, Power to the people – Social Media Tracker Wave 3 (March 2008)

Figure 56: Frequency of downloading a podcast
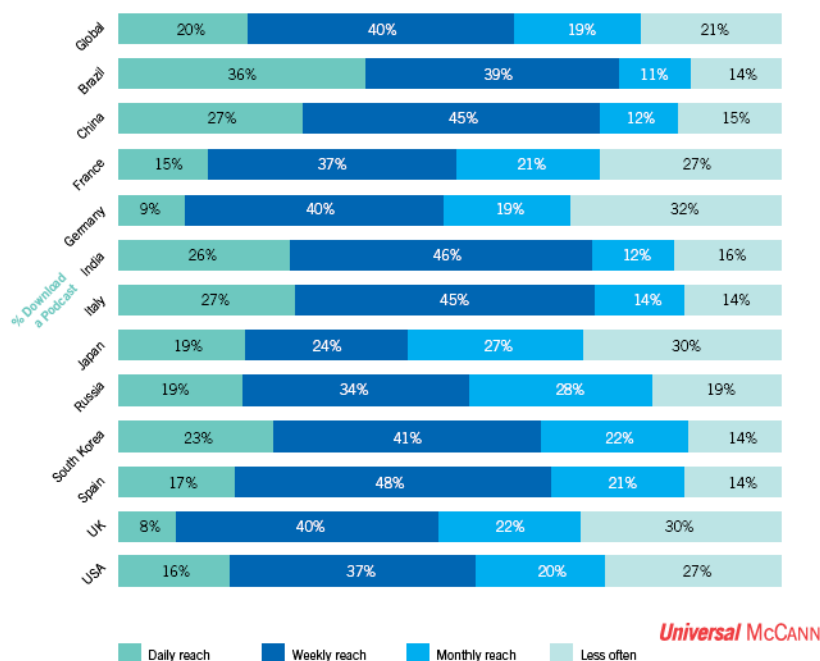
Source: Universal McCann, Power to the people – Social Media Tracker Wave 3 (March 2008)

Subscribing to an RSS feed

Not a content in itself but a technological tool which makes it possible to access easily to one's favoured content, the subscription to an RSS feed did not manage to be really successful so far. Nevertheless, the evolution trend is quite encouraging in the latest period and should go on in the coming years. Emerging markets are holding the first places of the Universal McCann ranking. Users of RSS feeds are frequent users since almost 60% of them access their RSS Feeds at least weekly (out of which 27% daily).

Figure 57: Percentage of active Internet users who have subscribed to an RSS feed, by country

Subscribed to an RSS feed

"Thinking about using the Internet, which of the following have you ever done?" – "Subscribe to an RSS feed" Active Internet Users
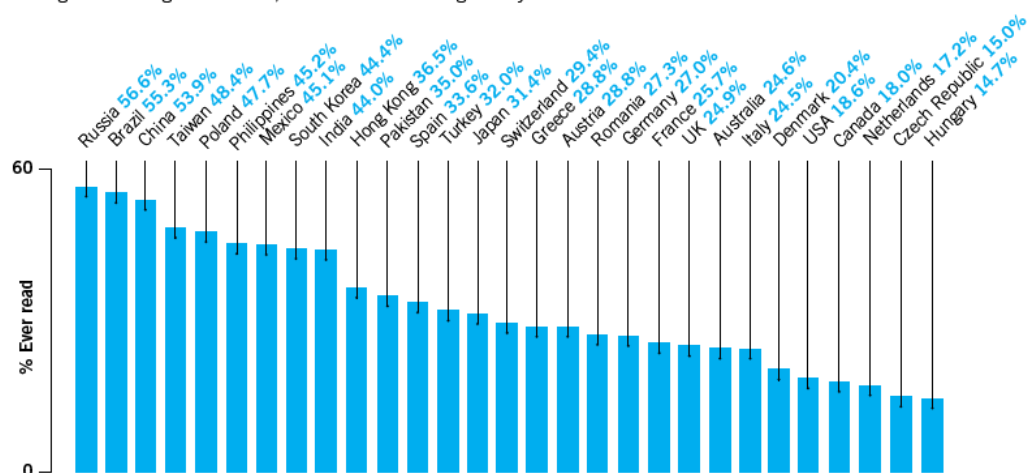
Source: Universal McCann, Power to the people – Social Media Tracker Wave 3 (March 2008)

Figure 58: Evolution of the percentage of Internet users subscribing to an RSS feed, by country

Subscribing to an RSS feed – Waves 1-3

"Thinking about using the Internet, which of the following have you ever done?" – "Subscribe to an RSS feed" Active Internet Users
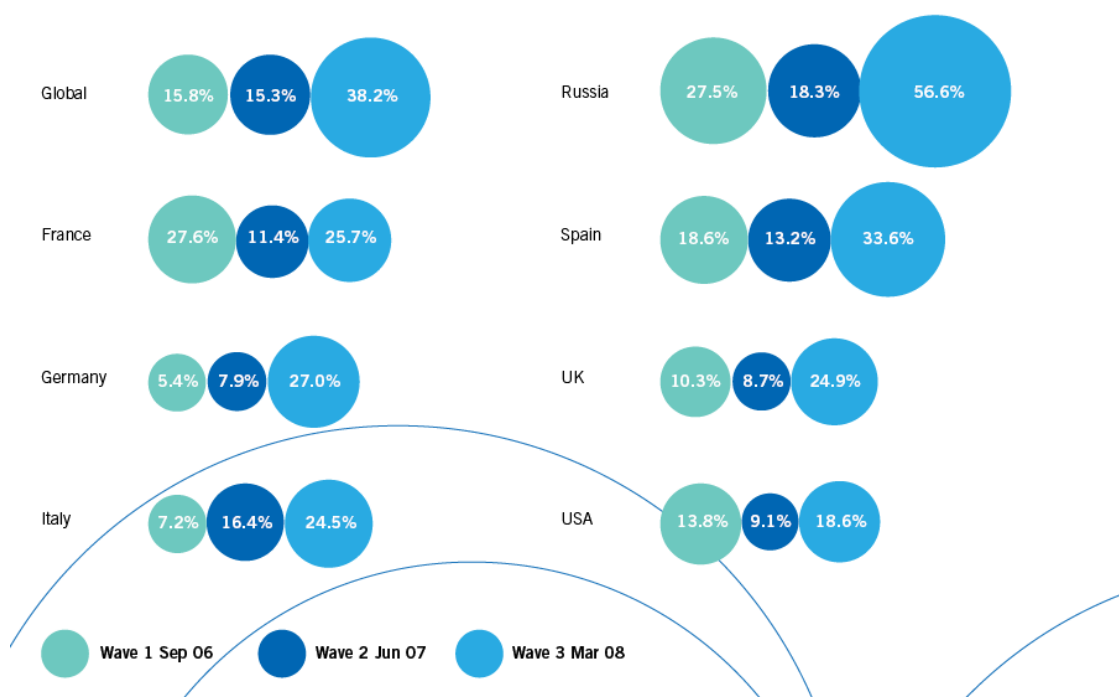
Source: Universal McCann, Power to the people – Social Media Tracker Wave 3 (March 2008)

 December 2008

Figure 59: Frequency of accessing RSS feed
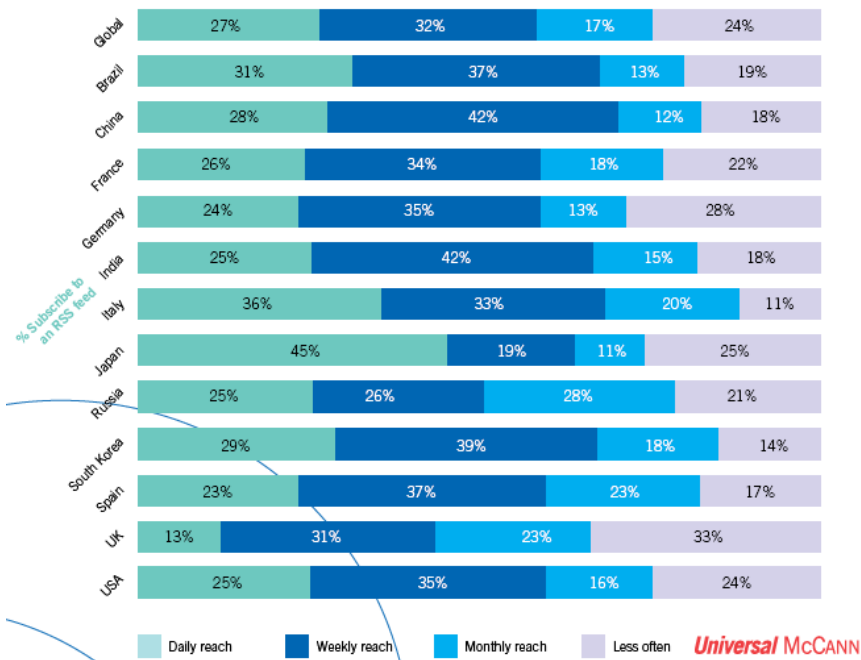
Source: Universal McCann, Power to the people – Social Media Tracker Wave 3 (March 2008)

1.4.8. Tagging

Technorati is seeing an explosive growth in tags:

- In two years (from January 2005 to February 2007), Technorati tracked 237 million posts using tags (from nothing in 2005);
- About 35% of all posts tracked by Technorati in February 2007 used tags, i.e. about 14 million posts per month with tags;
- The number of bloggers using tags was also increasing since around 2.5 million bloggers posted at least one tagged post in February 2007.

Figure 60: Evolution of tagging from January 2005

Source: Technorati – April 2007

© IDATE – TNO – IViR December 2008
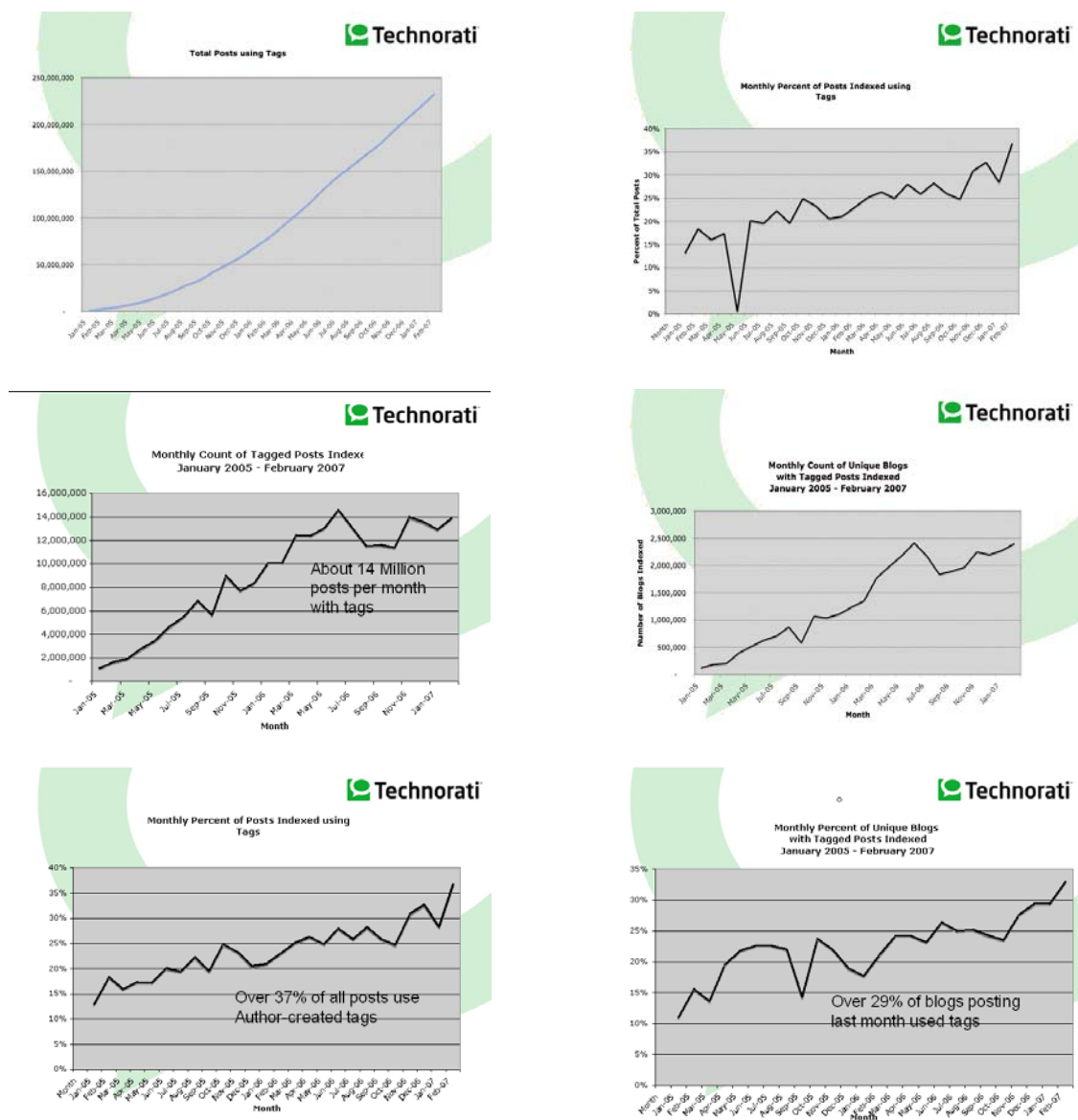
1.4.9.   Content creation estimates

It is virtually impossible to give a precise number for the total contents created by users:

- Because of the diversity of contents (photos, videos, texts, music, games, etc.);
- Because of the vitality of the creation (900,000 new photos uploaded on Flickr daily for example and 70,000 blogs created daily);
- Because of the duplication of the same content on several websites (a same video being uploaded on more than one video sharing site);
- Because there is no common/universal definition of User Created Content;
- And because on a single website, even if some estimates exist on the number of contents hosted, there is no specific data on "pure" UCC (that is to say content totally created by an amateur), "mix" UCC (that is to say professional content adapted by an amateur), "semi-pro" UCC (that is to say content looking like a professional content but not developed in a professional framework), "pro" content (that is to say abstracts or full copies from a professional content, legally or illegally uploaded online).

However, there are either some estimates on the total contents stored on specific websites or estimates on the contents uploaded monthly or daily on some websites. It would have no sense to extrapolate on the basis of these indications to provide global, European or national estimates regarding the total number of contents created by users. Main data concern the generalist – often entertainment oriented – platforms. Comparative statistical data are often not available for specialised platforms or more professional-oriented platforms, since the few organisms collecting data on Internet consumption are for the moment focusing on main trends rather than on niche markets. But these data give precious indications on the vitality and the trends in contents created by users:

- In less than 3 years, social media sites have become key players on the Web and some of them are now able to gather comparable or more audience than traditional media players (such as TV channels for example);
- The number of contents (whatever they are) stored by these websites has skyrocketed in the same period (the number of videos stored on YouTube has been multiplied by more than 13 in less than two years);
- Some signs of slowing down begin to appear: the number of contents uploaded, of posts or of blogs created for example is still growing but at a slower pace, mirroring the fact that UCC has already reached a high level of interest and usage among the total population.

This is quite coherent with the data given previously by Universal McCann, EIAA Mediascope Europe, the Pew Internet & American LifeStyle or Technorati. The penetration rate of the Internet has been growing dramatically in the recent period; the use of the social media sites has expanded quickly among active Internet users. In some countries, the Internet has already reached saturation point, the only prospects for social media sites are to increase their reach among the Internet users. In other countries (emerging markets in particular), the Internet is far from being used by all individuals, but the Internet users are already active users of these kind of websites. 2008 seems thus to register a first threshold in the social media sites' growth and probably a parallel evolution of the content creation's growth.

This does not mean that the UCC market will not further develop but that its growth will be conditioned by factors such as the broadband penetration rate or the equipment rate in computers. In particular, people interviewed during the study expect that the take-off of mobile broadband access will give a major impulse to the UCC consumption and creation.

Current active users could also turn to be future active contributors/creators but – according to various analyses (cf. hereafter) – the potential percentage of real creators is limited and will not increase. So, in absolute values, the number of content creators will further increase, but in percentages, it should stay the same. In the same way, the total number of contents created by users should also increase (thanks to the "new" creators who will appear following the increase in the broadband penetration and also thanks to the "old" creators who will go on uploading or posting new contents).

Table 10: Examples of the vitality of content creation by users

Category	Amount of content	Creation	Visitors/Trends
Video sharing	• August 2006: YouTube stored 6.1 million videos (requiring about 45 terabytes of storage space) • June 2007: an estimated 40 million videos on video sharing sites • January 2008: Pandora TV = 2.5 million videos inventory • April 2008: YouTube = 80 million videos • 2012: over 160 billion videos produced in the year (In-Stat)	• More than 65,000 videos uploaded daily in YouTube (June 2006) • In a single month (August 2006) the number of videos on the site grew 20% • In April 2008, 10 hours of video are posted to YouTube every minute • In October 2008, 13 hours of video are posted to YouTube every minute • 15,000 new videos uploaded daily on DailyMotion (Jan. 2008) • DailyMotion registers 13 000 "motion makers", i.e. 1% of registered people	• August 2006: YouTube registered ca. 500,000 user accounts • April 2008: YouTube = 3.75 million user channels and 300 million unique visitors worldwide • In January 2008 alone, nearly 79 million users watched over 3 billion videos on YouTube (Yen 2008) • Number of videos appearing to decrease since March 2007 • On DailyMotion, 800 million videos viewed by 50 million UV in Jan. 08 • In France, 10 million of users watched more than 350 million videos, or an average 35 videos per viewer
Photos sharing	• 1+ billion images in photo sharing sites (Aug 2007) • 2 billion photos stored by Flickr (beginning 2008) • 5 billion images and videos stored by Photobucket in May 2008	• 900,000 new photos are uploaded daily on average in Flickr (August 2007) • 3 to 5 million new photos are uploaded daily on average on Flickr (end 2007) • 10 million new images are uploaded daily on average on Photobucket	• Growth levelling off • Flickr claimed more than 7 million registered users in August 2007 and 20 million at the end 2007 • Flickr: 27 million UV/month in February 2007 / 42 million UV in February 2008 • Photobucket: 40 million unique users in March 2008
Wikis/Knowledge sharing	• 7.5 million articles in all combined Wikipedia sites in approximately 250 languages (Oct 2007) • In April 2008 Wikipedia consisted of over 10 million articles in 253 languages. The English edition had more than 2.3 million articles (Wikipedia 2008), i.e. 22% of all articles on Wikipedia (German=8%, French=7%, Polish=5%)	• Wikipedia has over 75,000 active contributors	• Growth in number of articles in English Wikipedia tailed off since Sep 2006 • The rate of new account registration in Wikipedia declined by 25% in 2007[6] • Wikipedia has 683 million visitors per year (April 2008), wer.weiss.was has 4 million users/month (September 2007), Wikilengua 3,000 daily visitors (April 2008), Rockwiki 1,500 daily UV (1st half 2007)
Citizen Journalism		• French version of AgoraVox: 1,000 stories uploaded daily (30 selected daily)	• French version of AgoraVox: 34,000 authors / English version: 1,600 authors • The French version of AgoraVox has between 700,000 and 1 million UV/month • OhMyNews: 50,000 occasional contributors and 90 full-time staffers (Spring 2007)

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[6] www.techcrunch.com/2007/10/11/wikipedia-hits-mid-life-slow-down/

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Category	Amount of content	Creation	Visitors/Trends
Video Games		• 7,000 videos uploaded to WeGame from January to March 2008	• Kongregate announces 220,000 UV/month
Recommendation	• Last.fm counts 3.5 million songs in its catalogue.		• Last.fm has 21 million UV/month, Deezer 5.5 million UV/month (June 2008), Biblioteket 80,000 UV/month (January 2008) • Deezer has 2.4 million registered users (June 2008) and 416 142 registered members.
Talent Search		• 90,000 unique titles produced on Blurb in 2007 • 7,000 titles produced on Le Manuscrit in 2007	• 684 480 individuals registered on Lulu in 2007 • Lulu counts 100,000 visitors/day
Social networking sites	• Over 250 million profiles in Social Networking sites (Oct 2007): • Cyworld: 13.7 billion content stored (February 2007) (4.6 billion photos and 8.6 billion posts)	• MySpace has a daily increase of 300,000 new registrations (Nov.08) • On MySpace, 1.5 billion images are stored and 8 million images are uploaded daily • 60,000 new videos are upload to MySpaceTV every day • More than 8 million artists and bands are on MySpace Music Acts. • Facebook has a daily increase of 250,000 new registrations since January 2007 (Nov.08) • With more than 14 million photos uploaded daily, Facebook is the n°1 photo sharing application on the web, drawing more than twice as much traffic as the next three sites combined • Cyworld: 100,000 videos uploaded daily (Feb. 2007), 1 million photos send daily via mobile (Feb. 07)	• MySpace had more than 200 million members in Sep. 07); Hi5 has 80 million members and 44 million UV a month; Bebo has 42 million members and reported 22.4 million UV in Jan. 08, of which 13.4 in Europe; Orkut has 40 million members and 26.9 million UV in Jan. 08; Netlog has 35 million members and 25 million UV a month; Cyworld has 23 million subscribers (Nov. 08) – i.e. about 50% of the South Korean population – 25 million UV per month (Nov.08) and 2.2 million mobile users (Feb 07); Mixi, Japan's largest online community, has 14 million members; Dada has 12 million users of which 7 million paying subscribers; Lunarstorm has 1.2 million active members. • Dada registers 22,000 new registrations/ month. • After a stage of exponential growth, the growth in number of profiles in MySpace slowed down • Around 30% of the teenagers had not logged in to view their MySpace profile after three months (and about 5% of them in more than a year) • LunarStorm had 617,000 UV/week in November 2007 and only 490,289 in February 2008.
UCC on the TV set	• 18,000 videos uploaded on TV Perso as of June 2008		
Content Ranking			• Threadless announces 700,000 members mid 2008

Category	Amount of content	Creation	Visitors/Trends
Blogs	• 70 million blogs and doubling every 5-7 months for the last 2 years (April 2007) • In April 2008 Technorati had indexed more than 112 million blogs	• April 2007: 120,000 new blogs created daily • April 2008: daily increase of 70,000.	• Slowing down in the doubling of the size of the blogosphere, as well as a slowing in growth in the rate of posts created per day since October 2006 • After 3 months on average, only 20% of the blogs are still active
Tags		• Over 1 million tags added per week in Flickr in 2006 • 2.6 million geotagged photos in Flickr in August 2007[7], up from 1.6 millions in 2006 • About 14 million posts per month with tags in February 2007 (Technorati)	

Podcasts	• iTunes offers:
	  - 5 million pieces of music,
	  - 550 TV series,
	  - and 500 films.
	• It is claimed to have sold till 31. July 2007 more than 3 billion songs, 50 million times pieces of TV series, and 2 million movies		

Virtual reality	• Tens of billions of user-created objects in Second Life (April 2006)	• Up to 60,000 persons show up online simultaneously	• Second Life has more than 14.5 million user accounts in July 2008 (it has registered 712 346 new residents during July) • Only about 10% of newly created residents are still logging in weekly in Second Life[8]. • Habbo Hotel has 8.6 million UV/month (March 2008)
Social bookmarks, collaborative tagging, folksonomies (information that is collectively created by users).	• Del.icio.us reports over 100 million unique URLs archived • StumbleUpon stores over 5 billion "stumbles" of which a billion since the start of 2008 alone		• Digg: 20 million visitors March 2008 • Del.icio.us: over 3 million users and 1,24 million visitors March 2008 • StumbleUpon: over 5 million members and 3.2 million unique visitors in March 2008

Source: Wikipedia, company sites, blogs, press, etc.

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[7] Technorati, April 2007
[8] LindenLab

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1.4.10. Highlights

In spite of the lack of comprehensive data covering all the aspects of participation in UCC activities in all European countries, it is already clear that the desire and will to be connected to the world, to express oneself and to share thoughts, knowledge or photos are strong and that we are only at the beginning of this phenomenon, as shown by the already high rates provided above.

The Internet has already reached a high penetration rate into European households in around ten years (54% on average but with important disparities) whereas it took decades for highly popular media, such as TV, to reach the same levels of penetration. Even if some slow-down could be observed in some activities, there is no decrease in UCC activities. The slow-down is the sign that some activities have already reached a quite high level of maturity.

Activities linked with self-expression, creation, sharing information, networking have already taken a great part of the time spent online and have shown massive growth in the last period. People interviewed during this study all agree on the fact that the number of people engaged in a participative Internet can only go on increasing as broadband Internet penetration will grow (in particular in Southern and Eastern European countries), as mobile Internet access will develop, as equipment in affordable and easy-to-use digital devices and creation software will spread widely, as all generations (beyond the digital native generation) will progressively acquire the necessary skills.

If people interviewed are aware of potential technical, economic, legal or social obstacles (Cf. Part II – Drivers and Obstacles) which might hinder the participation of some parts of the population, they tend to consider that they all can be overcome and that drivers are strong enough to sustain a further massive development of UCC services and activities.

People interviewed expressed no doubt that, in the future, European people will massively be engaged in UCC activities and that they will be able to find platforms meeting expectations and needs of all individuals.

1.5. UCC creators

1.5.1. Currently, a limited percentage of the Internet users, but higher among young people

It is not obvious to characterize UCC creators and to assess their number. Either the existing data focus on a specific type of content (like photos or videos) or on specific aspects such as entertainment platforms, or they cover a broader scope than UCC (including personal profiles in social networks). However, the various available data converge on the following point: the percentage of creators is far lower than the percentage of consumers. If the UCC phenomenon is reaching an ever growing population, content creation is still limited to a minority percentage of Internet users, rather young.

Forrester has developed an interesting concept of a "Participation Ladder" based on an analysis of online participation and consumption practices (users should participate to an activity at least monthly). The scope of the analysis is quite broad since it includes blogs' creation, use of RSS and visits to a social networking site. But this Participation Ladder allows classifying different categories of users, ordered by their degree of participation. Forrester identified six segments of users:

- The Creators,
- The Critics
- The Collectors,

- The Joiners,
- The Spectators,
- The Inactives.

Forrester provides this ladder for Europe as well as for the USA. Data are quite similar in the two regions, even if the American Internet users are a little bit more active than their European counterparts. According to Forrester's surveys, 10% of adult Internet users belong to the "Creators" category in Europe and 13% in the USA, whereas Europe counts 40% of "Spectators" and the USA "only" 33%.

It is to be noticed that these data dated back to 2006 (for both Europe and the USA), so we may assume that the percentages would have been different if the same surveys were conducted in 2008. In particular, the proportion of the Inactives is probably less important now than it used to be (what would be coherent with the Universal McCann and EIAA Mediascope Europe surveys. Cf. above).

Note that the ratios sum up to over 100% since one user may belong to one or more categories.

Figure 61: Comparison between the European and the North-American Participation Ladder

Europe   **USA**

Source: Forrester Research, Inc. 2006
in European Social Computing

Source: Forrester's NACTAS Q4 2006
Devices & Access Online Survey
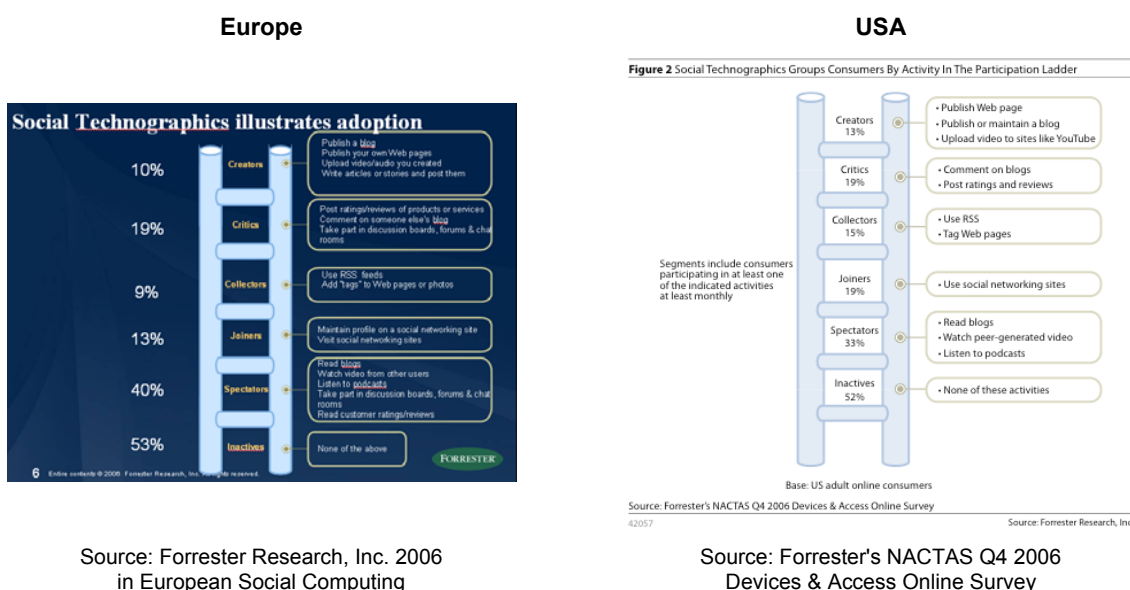
In the USA, the survey gives the following demographic features with respect to the segments:

- **Creators** are generally young — the average age of adult users is 39. They are evenly split between men and women.
- **Critics** are on average several years older than Creators. Two-thirds of them post ratings and reviews, but only 22% comment on blogs and rate/review Web site content. Four out of 10 Critics are Creators as well.
- **Collectors** are the most male-dominated of all the Social Technographics groups. More than two-thirds tag pages, while more than half use RSS.
- **Joiners** are the youngest of the Social Technographics groups. They are highly likely to engage in other Social Computing activities — 56% also read blogs, while 30% publish blogs. Women have a slightly higher ratio on social networks activity
- **Spectators** are slightly more likely to be women and have the lowest household income of all the social Technographics groups. The most common activity for Spectators is reading blogs, with only a small overlap with users who watch peer-generated video on sites like YouTube. In all, 31% of Spectators do not engage in Creator, Critic, Collector, or Joiner activities.
- **Inactives** have an average age of 50, are more likely to be women, and are much less likely to consider themselves leaders or tell their friends about products that interest them.
- In addition, 18-26 year olds have the highest percentages in almost every participating category. In particular, 70% of the 18-21 year olds participate in social network activities (41% of youth visit a social networking site daily). **One third of teenagers is also actively creating content**, but they are less engaged as Critics or Collectors than other generations. Around 40% are merely Spectators or Inactive. Older generations tend to participate less, but one fifth of the Seniors are nevertheless Spectators.

Figure 62: Comparison of social computing adoption between adults and youth

Source: Forrester Research, Inc
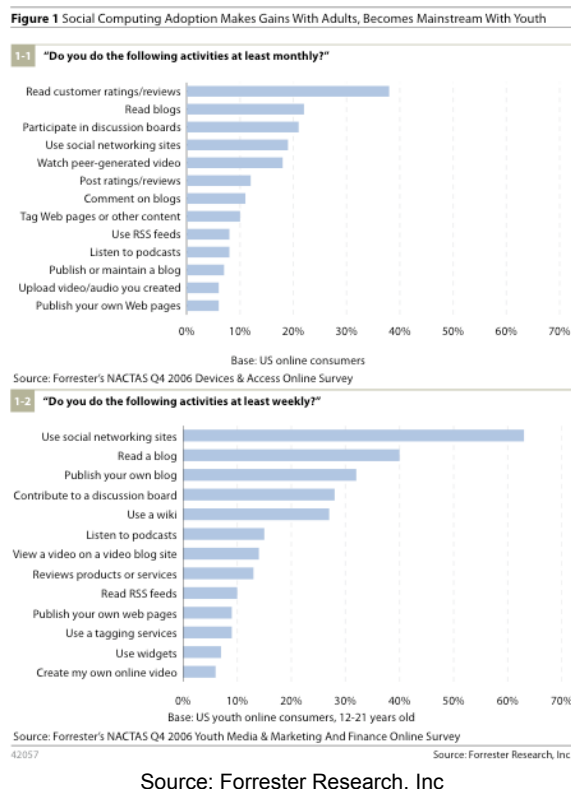
The Forrester surveys tend to prove that young people are more active that the adults on the Internet. For example, less than 10% of the adult Internet users publish or maintain their blogs monthly, whereas one third of the youth do it on a weekly basis.

The **Pew Internet & American Lifestyle Project** also provides data covering similar fields than Forrester Research for the same period (survey conducted in the USA in November 2006). If the comments could be quite similar (UCC creation is limited to a minority of Internet users and young people are more active users and creators than the oldest ones), the figures given by the Pew Internet & American Lifestyle Project are more optimistic than the ones from Forrester.

The survey carried out by the Pew Internet & American Lifestyle Project covers specifically user-generated content. In this survey, user generated content can be anything produced by the user – text, audio, video, categories or ranks, networks.

The main findings from the Pew Internet & American Lifestyle Project are the following:

Among adults, 35% of Internet users have created content and posted it online:

- 8% of Internet users keep a blog
- 14% work on their own webpage
- 13% create or work on webpages for others
- **26% share something online that they created themselves**, such as artwork, photos, stories, or videos.

In this survey, the initial definition of UGC was expanded to the following items:

- 34% have used the Internet to share & display photos or get photos developed
- 30% of Internet users have rated a product, service or person using an online rating system
- **18% have taken material found online and remixed into a new creation**
- 11% of adults 18 and older have used online social or professional networking sites

In terms of demographics features, a UGC creator has the following characteristics:

- Home Broadband users – 73% of content creators have broadband at home
- Men more than women, 37% vs. 32%
- Young people – 43% of under 30, vs. 18% of 65+
- Income level is less determinative, particularly among broadband users
    - 46% of broadband users with incomes under 50,000 USD post content
    - 41% of broadband users with incomes 50,000 USD and up post content
- Teens

A specific focus has been made on teens:

- **57% of online teens create content of some kind for the Internet**
- **33% share their own creations online: artwork, photos, stories, video**
- 32% have created a webpage or site for others
- 22% have created a personal webpage
- **19% have remixed content they found online into their own creation**
- 19% have their own online journal or blog
- Do not update blogs frequently—largest group (less than a third) update the blog 1-2 times a week
- 38% read the blogs of others
- Two-thirds read only the blogs of people they already know. Another third read both the blogs of friends and strangers.

In April 2008 eMarketer published forecasts regarding US User-Generated Content creators and consumers. eMarketer defines user-generated content creators as individuals who create and share online any of the following media at least once per month: video, audio, photos, personal blogs, personal websites, online bulletin board postings, customer reviews or personal profiles in social networks or virtual worlds. User-generated content consumers are defined as those who consume any of those media types in the same time frame.

With this extensive definition of UGC, eMarketer announces that 50% of US Internet users were using so called user generated content in 2007. By 2012, the share is expected to grow by 10%. According to eMarketer, US Internet users are already active creators since 41% of them are involved at least

once a month in a creative use of the Internet. This share is also expected to grow by almost 10% in the next five years.

Figure 63: US UGC creators and consumers forecasts (2007-2012)

US User-Generated Content Creators, 2007-2012 (millions and % of Internet users)

Year	Value
2007	77.1 (41.0%)
2008	83.0 (42.8%)
2009	89.2 (44.6%)
2010	95.7 (46.4%)
2011	102.1 (48.2%)
2012	108.5 (50.0%)
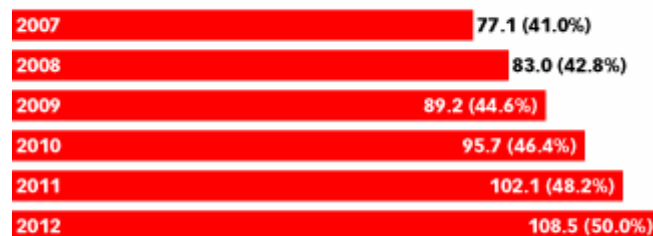
Note: individuals who create and share any of the following online at least once per month-video, audio, photos, personal blogs, personal Web sites, online bulletin board postings, personal profiles in social networks or virtual worlds and/or customer reviews
Source: eMarketer, April 2008

093368   www.**eMarketer**.com

US User-Generated Content Consumers, 2007-2012 (millions and % of Internet users)

Year	Value
2007	94.1 (50%)
2008	100.8 (52%)
2009	108.1 (54%)
2010	115.5 (56%)
2011	122.9 (58%)
2012	130.1 (60%)
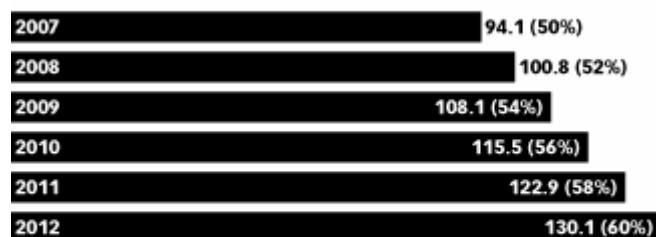
Note: individuals who consume any of the following online at least once per month-video, audio, photos, personal blogs, personal Web sites, online bulletin board postings, personal profiles in social networks or virtual worlds and/or customer reviews
Source: eMarketer, April 2008

093370   www.**eMarketer**.com

Source: eMarketer.com, April 2008

In its Use-IT 2007 survey, IDATE also provides some data on social computing and user-generated content (in France only). Here are the main findings.

Young people are the keenest content creators: the 15-24 year-olds upload more content online than the average of the Internet users and 2/3 of them post comments on blogs, forums or video sharing sites.

Figure 64: Content uploaded on the Internet

	Photos	Texts	Music	Personal videos	Videos recorded on TV	Playlists
All Internet users	23%	15%	9%	6%	3%	1%
Internet users 15-24	37%	28%	20%	11%	9%	3%
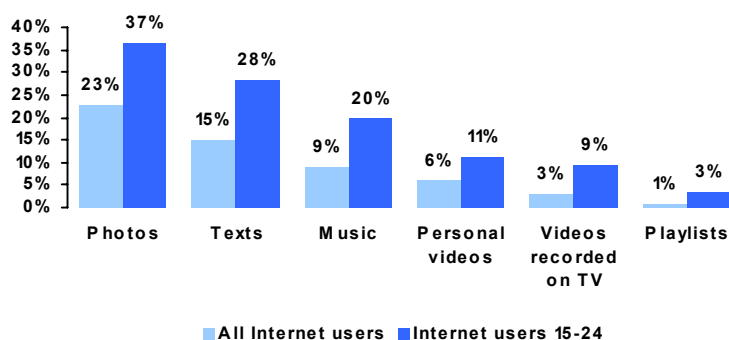
Source: IDATE, Use-IT 2007 survey

Figure 65: Participation in social computing

"Have you ever post comments or rate content on blogs, forums or video sharing sites?"
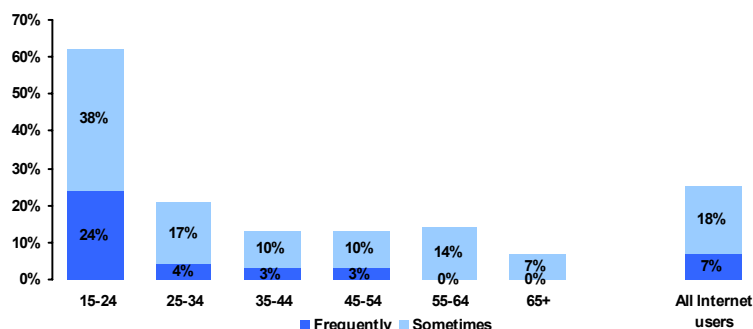
Source: IDATE, Use-IT 2007 survey

IDATE also notices a slow-down in the blogs creation even if blogs are now quite popular in France: 81% of French people (Internet users or not) have heard of blogs. Around 1/3 of all Internet users read blogs (2/3 of young people) and this activity has grown since the previous Use-It Survey (25% of Internet users read blogs in 2006). Blogs creation is stagnating: 9% of Internet users have created their own blog in 2007 (they were 7% in 2006), and only 1/3 updates his/her blog regularly.

The blog phenomenon is focused on young people: 2/3 of the 15-24 year-olds read blogs and 1/3 of them have created his/her own blog.

Figure 66: Knowledge and uses of blogs

*at least once a week
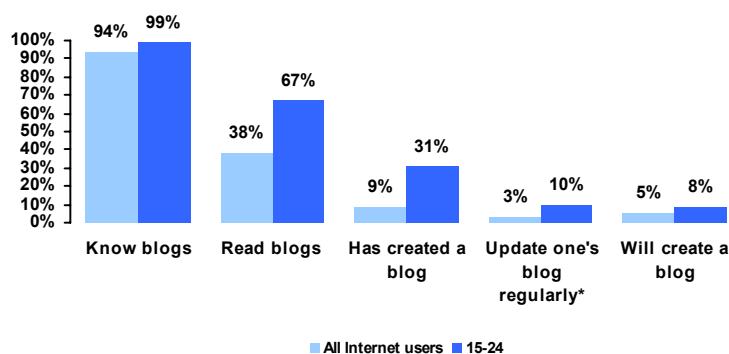
Source: IDATE, Use-IT 2007 survey

According to the last "State of the Blogosphere" study released by Technorati in September 2008, on average two-thirds of bloggers are male and 50% are 18-34. But the profile of the average blogger is quite different according to his/her geographical origin:

- Only 27% of bloggers are women in Europe and Asia, whereas they represent 43% of US bloggers;

- Only a quarter of Asian bloggers are 35+ whereas in Europe and in the USA a majority of bloggers is 35+ (respectively 52% and 58%);

- The average US blogger has high household income (51% have income > 75,000 USD), whereas only 9% of Asian bloggers and a third of European bloggers have a comparable income;

- Asian bloggers count 26,000 average monthly unique visitors, i.e. a little more than European bloggers (24,000) but far more than US bloggers (18,000);

- 60% of Asian bloggers have advertising on their blogs, but only half of European and US bloggers do the same.

- Despite higher numbers of UV and a higher percentage of blogs with advertising, the median annual revenues derived by Asian bloggers is significantly lower that in the USA or in Europe (120 USD vs 200 USD)

Table 11: Global Snapshot of Bloggers

Demographics	U.S. Bloggers (N=550)	European Bloggers (N=350)	Asian Bloggers (N=173)
Male	57%	73%	73%
Age			
18-34 years old	42%	48%	73%
35+	58%	52%	27%
Single	26%	31%	57%
Employed full-time	56%	53%	45%
Household income >$75,000	51%	34%	9%
College graduate	74%	67%	69%
Average blogging tenure (months)	35	33	30
Median Annual Investment	$80	$15	$30
Median Annual Revenue	$200	$200	$120
% Blogs with advertising	52%	50%	60%
Average Monthly Unique Visitors	18,000	24,000	26,000

Source: Technorati, *State of the Blogosphere 2008*

In the Use-IT 2007 survey, IDATE has also developed a classification of the Internet users ordered by their degree of participation. The survey shows major differences between young users and the rest of the Internet users, the youngest being more active creators than the oldest.

Table 12: Classification of the Internet users

Category	Definition
Active creator	Updates his/her blog at least once a week
Occasional creator	Updates his/her blog less than once a week
Regular participant	Posts regularly comments on others blogs
Occasional participant	Posts occasionally comments on others blogs
Reader only	Reads blogs but does not post comments
Inactive	Does not read blogs

Base: All Internet users
Source: IDATE, Use-IT 2007 survey

Figure 67: Typology of the Internet users

All Internet users   **15-24 year-old Internet users**

Inactive : 56%

Reader only : 16%

Occasional participant: 15%

Regular participant: 4%

Occasional creator : 6%

Active creator : 3%

Inactive : 25%

Reader only : 10%

Occasional participant: 25%

Regular participant: 9%

Occasional creator : 20%

Active creator : 10%

Base: All Internet users
Source: IDATE, Use-IT 2007 survey
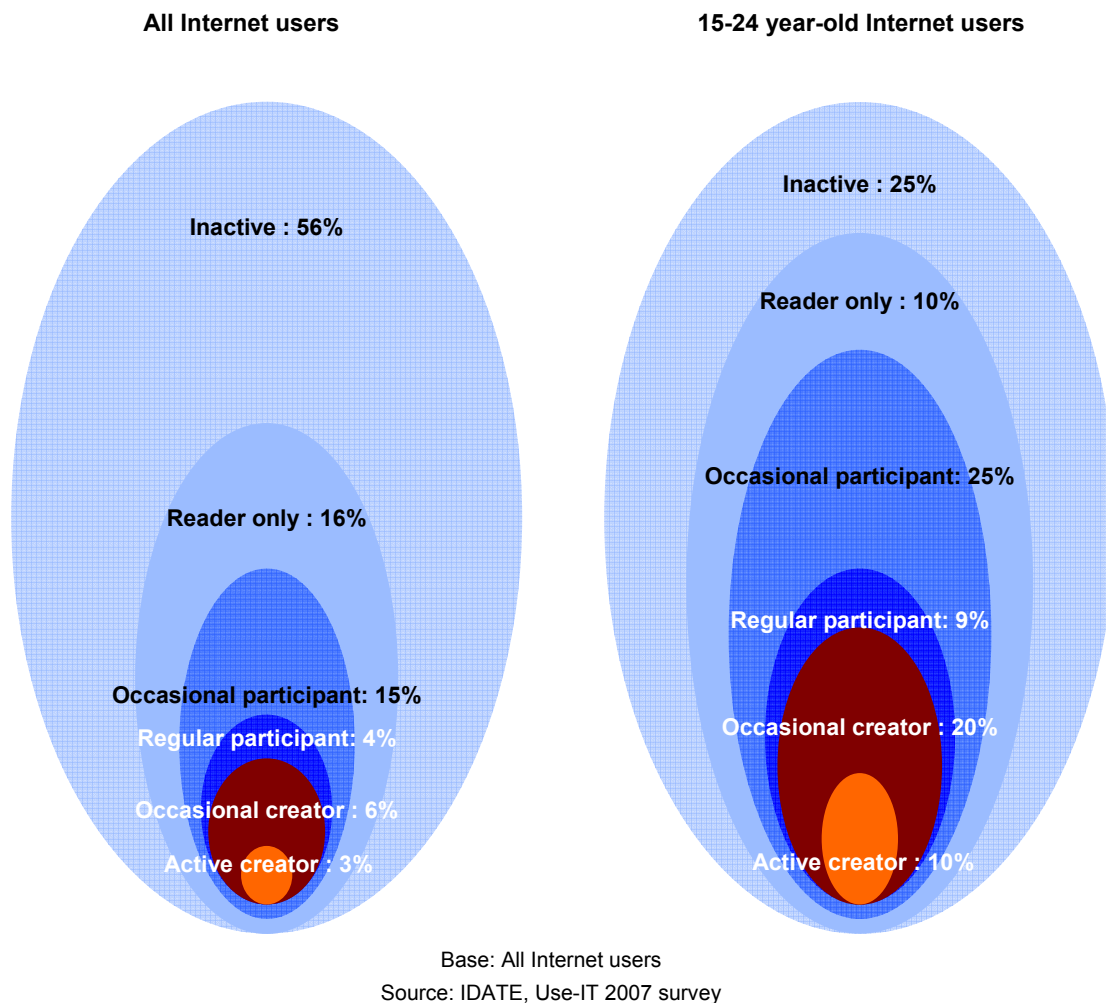
So, there are strong evidences that young people are already massively engaged in UCC activities and that they constitute a major share of the total individuals active in the field of UCC consumption and creation.

This is also true for one activity strongly related with UCC: taking photos. According to an InfoTrends' survey on Western Europe digital photography released in 2008, consumers aged 18-24 are significantly more active photographers than the general population. On average the number of digital photos taken every 3 months was just under 77 for the total population surveyed, whereas this number climbed to over 100 for 18-24s.

Younger consumers also take a much higher number of camera phone photos than other consumers and also report sharing a significantly higher percentage of their photos than any other demographic group. For InfoTrends this can be explained by the great popularity of social networking among young adults. InfoTrends Director Mette Eriksen presumes that "As time goes on and these consumers age, it is likely that they will continue these photo sharing habits. It is important to continue to track these young respondents, as they will likely have a strong impact on the market of tomorrow."[9]

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[9] Cf. Press release from InfoTrends "*InfoTrends Study Reveals That Consumers under 25 in Western Europe Are Embracing Digital Photography Activities*", September 16, 2008

1.5.2.   Some slight differences by country

According to Forrester Research, the global figure of 10% of Creators in Europe masks various situations. In the Netherlands, users would be more involved in the creation than the average, twice as much – in proportion – than in Germany and in Spain. But, whatever the country, the figures still concern a minority of Internet users (between 8% and 17% according to the Forrester's data). It is to be noticed that the Netherlands and Sweden are among the countries with the highest penetration rates of Internet access, and in particular of broadband access. However, Italy which figures among the countries with the lowest broadband penetration rates has exactly the same percentage of UGC creators than Sweden, whereas UK and Germany which have high Internet access penetration rates are below the average as far as the percentage of creators is concerned.

Figure 68: Comparison of the respective share of creators in some European countries
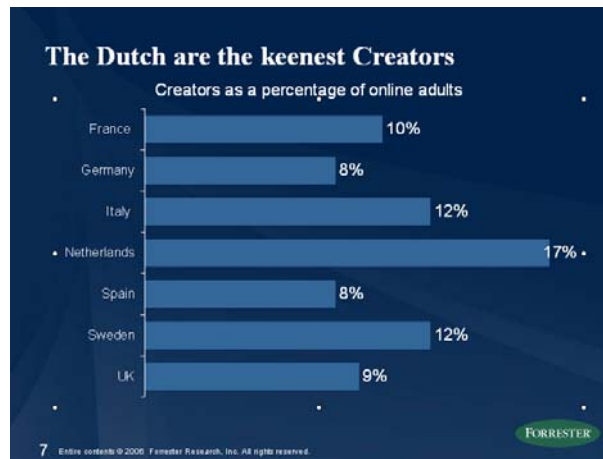
Source: Forrester Research, Inc. 2006 in European Social Computing

Similar differences exist between the young people. But, if German young people are like the German adults, the less active on the online creation, the rest of the ranking is totally different between adults and youth. In the Netherlands only 32% of the young people are creators, whereas in Spain 45% of them are creators. Italian youth leads the market with a record 55% of creators.

Figure 69: Comparison of the respective share of young creators in some European countries
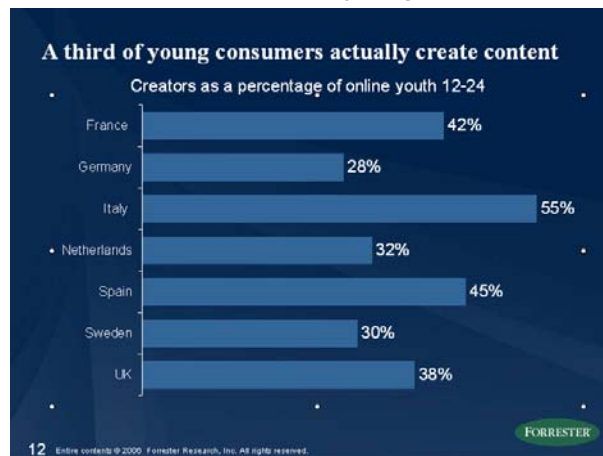
Source: Forrester Research, Inc. 2006 in European Social Computing

The data from Eurostat show similar differences throughout Europe on the one hand and between young people and the rest of the Internet users on the other hand.

For example, 24% of European Internet users on average have already posted messages to chat rooms, newsgroups or an online discussion forum, but the percentage ranged from 8% in Cyprus to 43% in Estonia. Idem for the use of peer-to-peer file sharing (13% on average ranging from 6% in Ireland to 24% in Luxemburg) and for the creation of a web page (10% on average ranging from 4% in Romania to 31% in Iceland). The Eurostat data seem also to prove that there is no apparent link between the Internet penetration nor the broadband penetration and the use of the UCC services by Internet users.

Figure 70: UCC users/creators in Europe in 2007
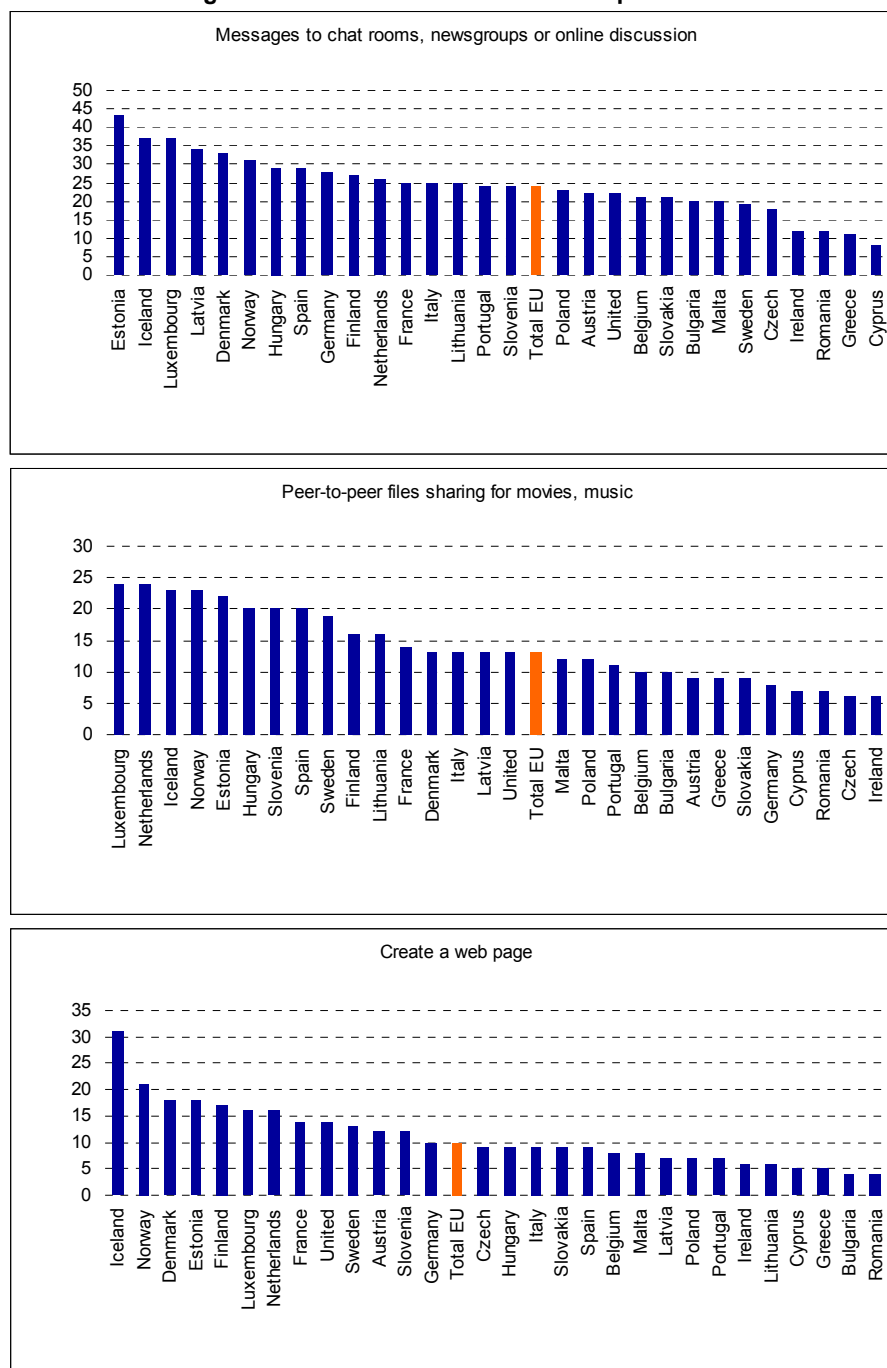
Source: EUROSTAT

The focus on the 16-24 year olds clearly shows that young people are more involved in UCC use/creation than the rest of the Internet users: 84% of 16-24 year-old Internet users in Estonia have already posted messages (but only 19% in Cyprus), 60% in the Netherlands have already used peer-to-peer file sharing (only 13% in Ireland), 60% in Iceland have already created a web page (only 10% in Romania).

If the ranking of the countries is not exactly the same for the 16-24 year-olds than for all the population, there is no major difference between young people and the rest of the adults (i.e. in general, if the 16-24 year olds are active users of one type of service, the rest of the Internet users of this country will also be among the most active users, even if less numerous than the youngest and vice versa).

Figure 71: 16-24 year old UCC users/creators in Europe in 2007
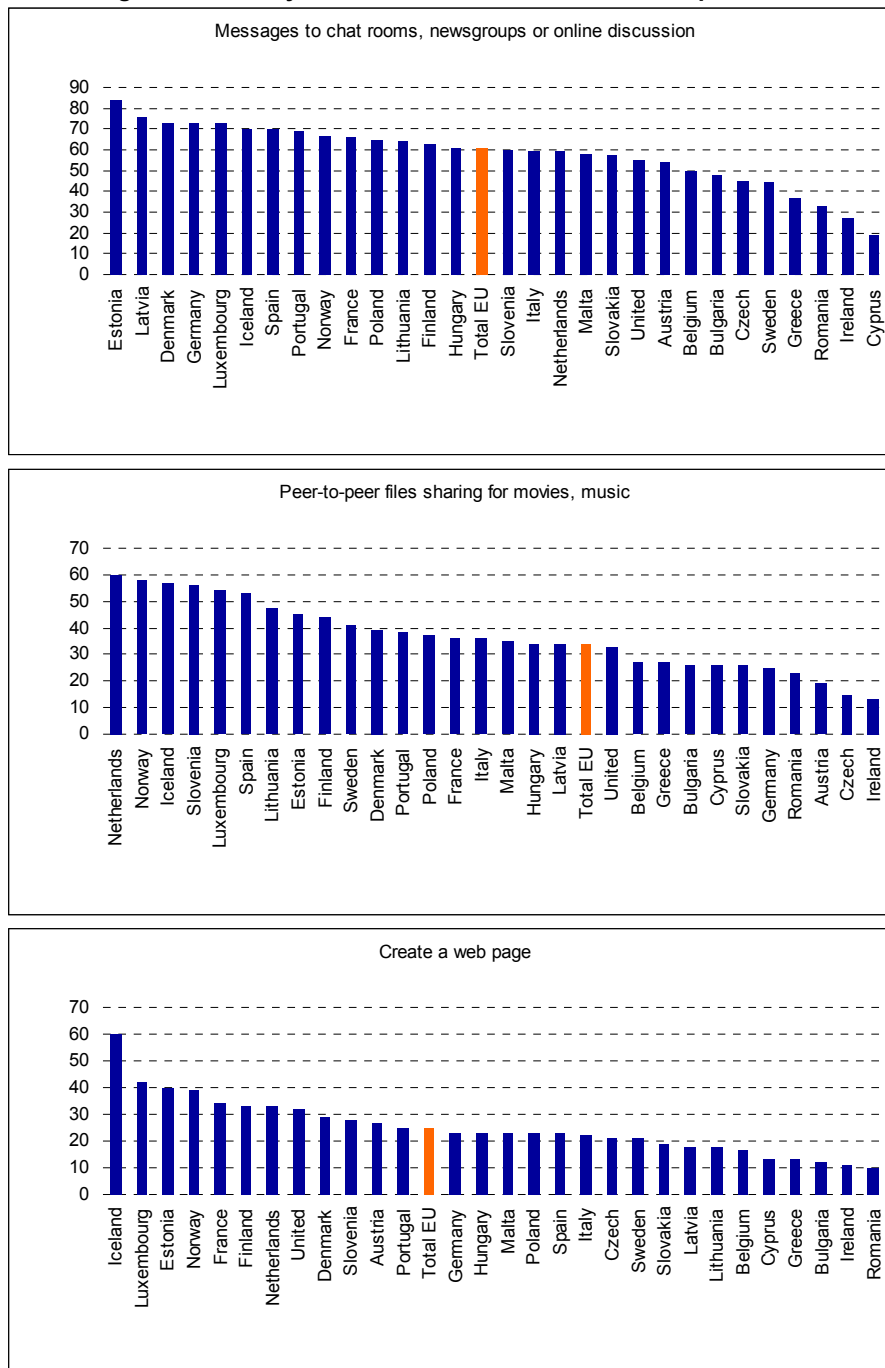
Source : EUROSTAT

Focusing on the young individuals, RISC International also provides data on online content creation and consumption in the USA, France and China. According to RISC International, only 7% of Chinese young people create content online, 10% in the USA and 14% in France. Creators are more likely to be Internet addict rather than Internet occasional users. This is particularly true in the USA where the percentage of total Internet addicts (either creators or consumers) is far higher (62%) than in France (41%) or in China (27%).

Table 13: Proportion of young individuals (15-29 year-old) creating or consuming content on the Internet

		Creators	Consumers
USA	Internet Addict	9%	53%
	Internet Occasional	1%	37%
France	Internet Addict	8%	33%
	Internet Occasional	6%	53%
China	Internet Addict	4%	23%
	Internet Occasional	3%	70%

Source: RISC International 2008

1.5.3. A poor proportion of creation in comparison to the number of visits

Hitwise provides some interesting data regarding the percentage of visits where content is uploaded.

- For Hitwise the 20-80 rule became the 1-19-80 rule:
- 1% of Internet users are creating user-generated content;
- 19% of users are interacting with that content;
- And 80% simply view that content.

In its "*Measuring Web 2.0 Consumer Participation*" survey, Hitwise measured interaction visits for three websites for the month of May 2007 in the USA; visits where videos were uploaded to YouTube, visits where photos were uploaded to Flickr and visits where users edited a Wikipedia entry.

Figure 72: Percentage of participatory visits compared to all website visits in the USA in May 2007
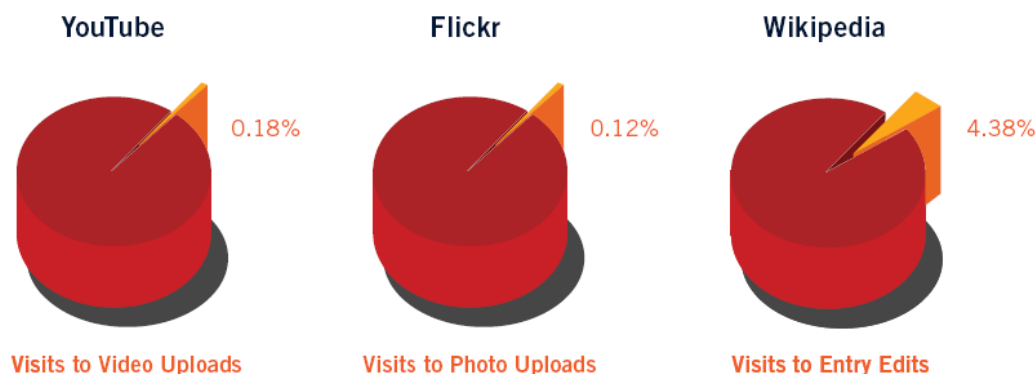
Source: Hitwise US Research Note – Measuring Web 2.0 Consumer Participation – June 2007

Hitwise draws the following conclusions: "In the case of YouTube and Flickr, the percentage of participatory visits (video and photo uploads respectively) fall well below the expected 1%, while Wikipedia entry visits compared with website visits reached an impressive 4.38%. The disparity between YouTube, Flickr and Wikipedia could be explained by the technical barrier of participation. YouTube and Flickr require some technical sophistication on behalf of the consumer (creating the video or photos, transferring the files to a computer, uploading the files to their respective websites) while Wikipedia edits require a simple mouse-click and text entry. The data gathered to-date through Hitwise Conversions indicate that the 1% rule may be open to further revision dependant on consumer sophistication and the ease of participation." (Hitwise US Research Note – Measuring Web 2.0 Consumer Participation – June 2007).

Hitwise also provides with demographic statistics:

- For all three websites, participators skewed male; 60% of Wikipedia entries and 55% of YouTube videos were "man"-made.
- 53.6% of visitors editing Wikipedia entries were over the age of 45.

1.5.4.   A frequent activity

According to the Universal McCann survey, for active Internet users, the use of social media platforms is a regular activity. For most people using these services, that is at least a weekly activity, if not a daily one. In proportion, there are less people accessing social media platforms monthly than weekly or daily.

Either it deals with watching video clips, or reading blogs, or uploading contents, or managing one's profile on a social networking site, or posting news on one's own blog, they have all become regular and frequent activities in a very short period of time for people who actually practise these activities.

Figure 73: Frequency of use of social media platforms
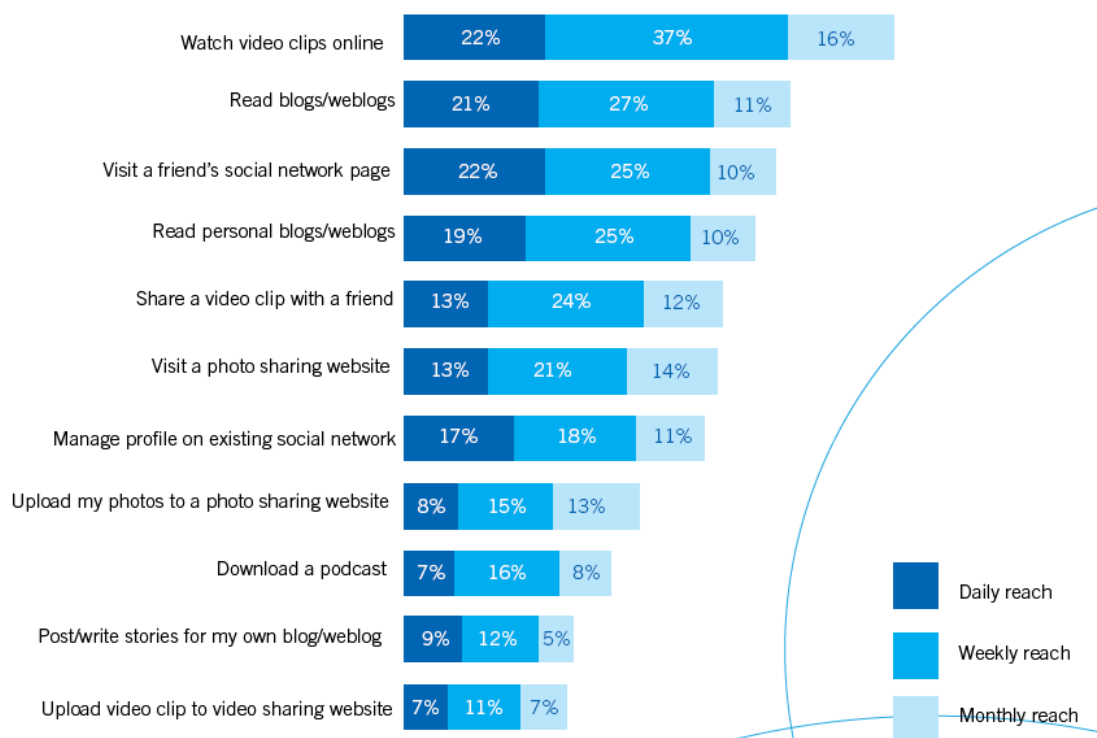
Source: Universal McCann, Power to the people – Social Media Tracker Wave 3

1.5.5. Estimates of the number of UCC consumers/creators

Table 14: Comparison of the number of UCC services users by country

| | Consumers | | | | | | | | Consumers/ Creators | | Creators | | | | | |
| | Reading blogs | | Watching videos | | Podcasting | | Subscribing to a RSS feed | | Belonging to a social network | | Writing blogs | | Uploading photos | | Uploading videos | |
	Number of users	% total population	Number of users	% total population	Number of users	% total population	Number of users	% total population	Number of users	% total population	Number of users	% total population	Number of users	% total population	Number of users	% total population
Austria	0.75	14.9%	1.00	20.1%	0.50	9.4%	0.40	7.2%	0.60	11.5%	0.30	7.2%	0.60	12.7%	0.50	9.2%
Czech Republic	1.20	15.1%	1.50	22.3%	0.40	**6.4%**	0.40	5.4%	0.80	12.7%	0.62	9.5%	1.00	15.9%	0.40	6.4%
Denmark	0.81	24.6%	1.30	34.1%	0.50	15.5%	0.30	8.2%	0.60	21.9%	0.30	9.4%	0.40	12.9%	0.30	10.4%
France	8.10	21.7%	8.10	21.7%	4.40	11.7%	3.30	8.8%	4.24	11.4%	3.80	10.8%	3.90	10.5%	2.50	6.7%
Germany	10.50	21.2%	14.60	29.6%	6.60	13.3%	5.10	10.4%	8.20	15.6%	5.20	10.7%	8.10	16.3%	6.30	12.7%
Greece	0.86	13.3%	1.00	15.9%	0.40	**6.4%**	0.30	5.3%	0.50	**7.8%**	0.30	4.7%	0.60	8.5%	0.40	6.9%
Hungary	0.10	**10.2%**	1.10	21.2%	0.30	6.5%	0.20	**3.6%**	1.00	18.6%	0.06	**2.0%**	0.40	**7.8%**	0.20	**4.0%**
Italy	8.10	23.2%	8.00	23.0%	2.60	7.4%	2.50	7.2%	4.00	12.0%	3.40	9.8%	5.00	10.2%	3.10	8.8%
Netherlands	4.10	**40.6%**	4.80	**47.5%**	1.60	15.8%	1.00	10.3%	3.70	**36.4%**	1.70	16.2%	2.80	**28.0%**	1.90	18.3%
Poland	2.60	10.6%	3.20	**13.3%**	1.70	6.9%	1.70	7.0%	2.70	11.2%	1.10	4.4%	2.00	8.1%	1.30	5.3%
Romania	1.50	11.1%	1.50	14.8%	1.40	10.3%	0.60	4.4%	1.40	10.0%	0.50	3.4%	1.30	9.0%	1.00	7.6%
Spain	8.50	34.3%	9.50	38.3%	5.60	**22.5%**	3.70	14.8%	4.70	19.7%	4.20	18.2%	8.50	20.3%	3.40	13.6%
UK	17.80	32.1%	15.00	41.3%	7.50	20.6%	4.40	12.2%	10.60	29.1%	4.30	12.3%	8.70	23.8%	5.70	15.6%
Total 13 EC Countries	*64.92*		*70.60*		*33.50*		*23.90*		*43.04*		*25.78*		*43.30*		*27.00*	
USA	60.30	33.2%	74.20	40.9%	29.50	16.2%	18.60	10.2%	43.00	23.4%	26.40	14.5%	47.10	25.9%	25.30	13.9%
Japan	25.10	33.1%	20.30	26.7%	9.00	11.8%	9.30	12.3%	12.40	12.2%	14.10	18.5%	6.20	8.2%	6.10	8.0%
South Korea	12.50	39.6%	11.80	37.1%	13.70	21.3%	6.00	**18.9%**	9.40	23.7%	9.90	**30.5%**	7.30	23.0%	5.90	**18.6%**

In blue: highest rate / in red: lowest rate

Source: According to Universal McCann, Power to the people – Social Media Tracker Wave 3 (March 2008)

1.5.6.   Highlights

According to the various figures given by different sources, participation in UCC activities is currently far more developed than creation of amateur content.

Some people interviewed during this study tend to consider that the Internet does not change anything to the percentage of real artists in the total population and that the Internet gives them a new way of expression. But, UCC goes far beyond the artistic aspects. It is not only a matter of talent but above all a matter of self-expression, whatever the means (writing, photos, videos, etc.) and the topics (holidays, food, politic, technology, etc.). Potentially, there are or there could be as many UCC services as centres of interest. So everybody, whatever his/her gender, age, geographic or social origin, could have an interest in a UCC activity.

We have to take into consideration the fact that UCC services are still in their infancy. So, in spite of a massive and quick development, people, in their majority, are not used to these services and have probably not explored yet the full potentialities of such services. Habits are still to be created and new usages will certainly appear in a near future.

A main driver of the future usages is obviously the digital native generation who will, according to experts, keep the habits they have developed as they will grow up and who will certainly play a major role in the training of the other generations.

Providing people access to the broadband Internet, own the appropriate devices and acquire the necessary skills, there should be a massive increase in content creation because of the further development of broadband access among European households and because of the development of habits among Internet users.

UCC further development will mainly be driven by people who are interested in sharing their thoughts, their knowledge, their souvenirs and their opinions with people who will have in common the same concerns, the same centre of interest, the same leisure, etc.

Of course, some of them will only need or want to be connected with a restricted base of contacts (family, close friends) whereas some others will look for broader contacts.

The last study from Technorati released on September 2008 on the *State of the Blogosphere* provides interesting indications on the reasons why people are blogging. It appears that self expression and sharing expertise are the top reasons for blogging followed by networking far ahead from professional motivations.

We can presume that motivations are quite similar for other UCC activities.

Figure 74: Main reasons why people are blogging
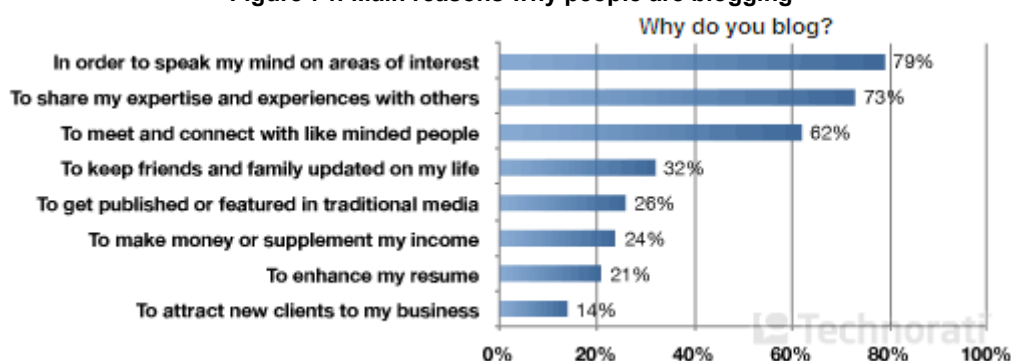
Source: Technorati, *State of the Blogosphere,* 2008

It is to be noticed that men and women have different expectations of blogging. According to Technorati, women are more likely to be personal bloggers (i.e. blogging about topics of personal interest not associated with the regular work, 83% vs 76% of men). More than men, women blog to stay connected and to make connections:

- 45% of women blog to keep friends and family updated (25% of men)
- 69% to meet and connect with like minded people (58% of men).

1.6. UCC Revenue

Only a few UCC services give some figures regarding their revenues. It seems that, despite the indisputable success of the UCC services, the monetization of user-created content has yet to materialize.

UCC services have developed so far various sources of revenues, of which advertising, sponsoring, subscription fees, donation, public funding, licensing, sales of goods and services, commission on UCC sales. Most UCC services rely on several sources of revenues.

Some UCC services like RocWiki or LibriVox (Cf. case studies) claim to be non-profit / non commercial projects and to not generate revenues. LibriVox says it rejects advertising and donations.

Due to the lack of data, our analysis focuses on entertainment UCC services for which some data can be found.

1.6.1. Advertising revenue

A booming market…

Most UCC services do rely on advertising revenue to cover their costs and generate revenue. It is impossible to estimate the weight of advertising in the total revenues of UCC services, but it is commonly suggested that advertising is the main source of financing of Web 2.0 in general and of UGC/UCC services in particular.

Although the Internet accounted for only 8.6% of ad spending worldwide in 2007, of which half was media-based, the web is nonetheless enjoying the highest rate of growth of all the media, with advertising investments increasing by 35% between 2006 and 2007.

The Internet is playing an increasingly significant role in advertisers' multimedia communication strategies and is attracting new investments each year, largely to the detriment of the written press.

Table 15: Global advertising spending, per medium

Medium	2005 (in million USD)	2006 (in million USD)	2007 (in million USD)	Growth 06-07 (in%)
Newspapers	118 803	127,473	130,032	2,0%
Magazines	52 576	56,04	57,92	3,4%
TV	151 143	168,355	179,268	6,5%
Radio	34 160	36,99	38,391	3,8%
Cinema	1 723	2,031	2,265	11,5%
Outdoor advertising	21 790	28,048	31,05	10,7%
Internet	19 235	30,404	41,038	35,0%
Total	**399 431**	**449,341**	**479,964**	**6,8%**

Source: ZenithOptimedia, October 2008

Forecasts indicate that the global advertising market will total more than 550 billion USD in 2010 (Source: ZenithOptimedia). At that time, TV and the written press (newspapers and magazines) will still be advertisers' preferred media, but will account for only 71% of the world advertising market, in other words 5% less than in 2007. Though expected to increase in absolute value, the drop in these media's relative share of global ad spending will benefit cinema, display and especially the Internet, whose share of ad monies is expected to have risen to 13.8% in 2010, making it the number three medium in terms of advertising investments worldwide, behind TV and the written press.

The Internet is also the medium forecast to be the beneficiary of the highest increase in advertising spending around the globe from 2007 to 2010 with 49% of additional spending going to the web, representing a sum of roughly 75 billion USD in 2010.

Table 16: Forecast change in global advertising spending, per medium

Medium	2008 (in million USD)	2009 (in million USD)	2010 (in million USD)	TCAM 07-10 (in%)
Newspapers	128 277	127 217	128 444	-1,2%
Magazines	58 433	59 407	61 279	5,8%
TV	187 496	193 854	203 770	13,7%
Radio	39 469	40 033	41 324	7,6%
Cinema	2 458	2 664	2 910	28,5%
Outdoor advertising	33 132	35 117	37 752	21,6%
Internet	51 054	61 729	75 803	84,7%
Total	**500 319**	**520 021**	**551 283**	**14,9%**

Source: ZenithOptimedia estimates, December 2007

Beyond the growth outlook for the global advertising market, it would be equally worthwhile to examine the media advertising spending structure in each country.

The weight of history, the impact of regulation, cultural practices, lifestyle, the standard of living and the population distribution all contribute to a degree that is impossible to quantify to media consumption patterns and, directly or indirectly, influence the way advertisers choose their investments.

Regarding expenses on the Internet, it seems that there is a strong correlation between the percentage of ad monies spent on the web and the broadband penetration rate in households: the US, the UK and Japan are thus the three countries where spending on online advertising are proportionately the highest.

Figure 75: Comparison of marketing mixes in the biggest markets in 2007
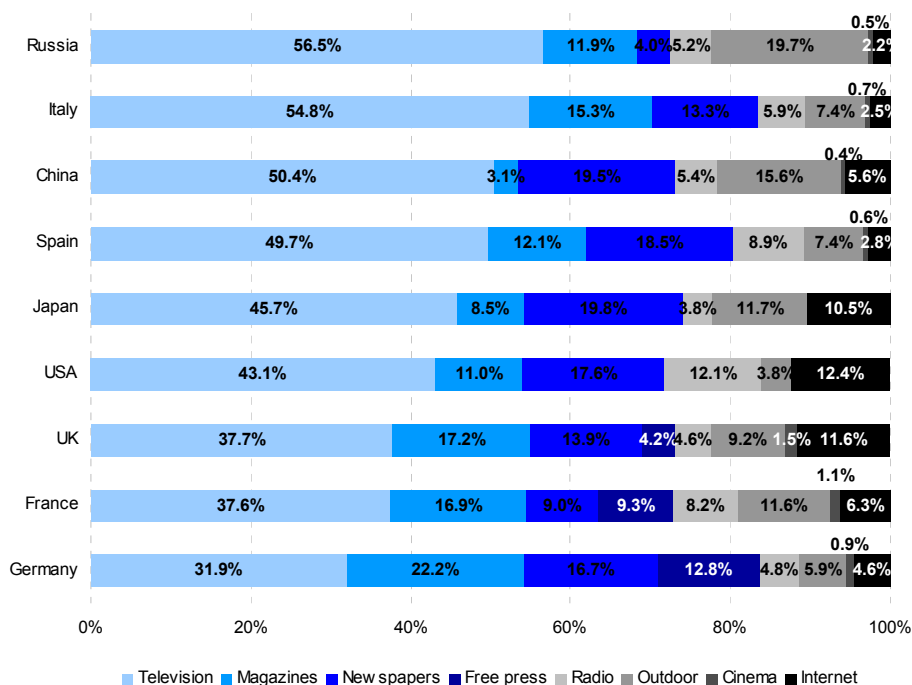
Source: Ad Barometer

…but highly concentrated in the hands of a few players

According to the IAB 2007 Internet Advertising Revenue Report, Internet advertising revenues in the United States totalled 21.2 billion USD for the full year 2007. The report shows a high concentration of the industry revenue since the web's top 10 ad vendors have cornered close to 70% of online ad revenue, with a lion's share going to Google (35%) and Yahoo! (25%). As the Net's premiere destinations, they have managed to concentrate the bulk of ad revenue, their share of this market well outweighing their audience share. But this breakdown is reflective of how advertising markets generally work, with the leader and a handful of challengers attracting the bulk of advertisers who are looking for optimal and extensive, but not necessarily exhaustive, coverage.

Figure 76: Growth of revenue share for the world's top online ad vendors

Source: IAB
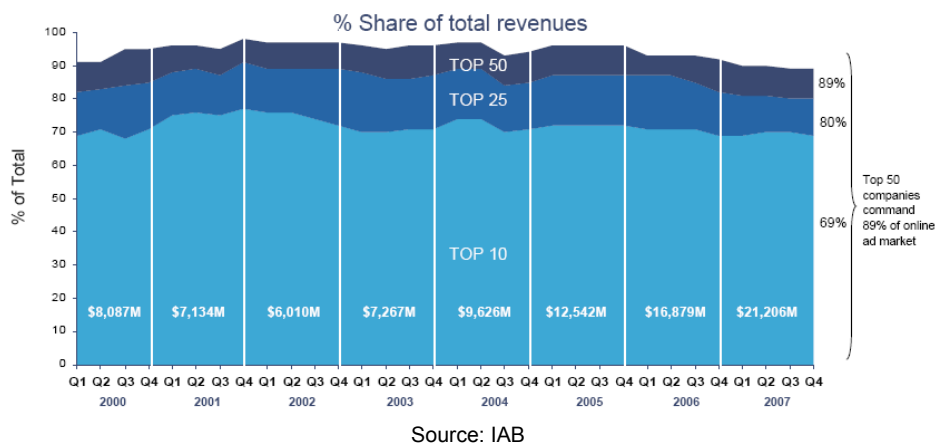
Even if we could not found similar studies for other countries, we presume that if such studies were conducted, they would provide similar findings, that is to say that the online advertising market is highly dominated by a few audience shares' leaders, whatever the market.

UCC advertising revenues among online advertising revenues: a modest share

eMarketer provides estimates for advertising revenues generated by UGC services in the USA, the most mature market as far as online usages and online advertising spending are concerned. eMarketer's forecasts take into account video-sharing sites and social networking destinations like MySpace and Facebook. Others services such as blogs and photo-sharing sites are excluded.

Figure 77: US UGC advertising spending (2007-2012)
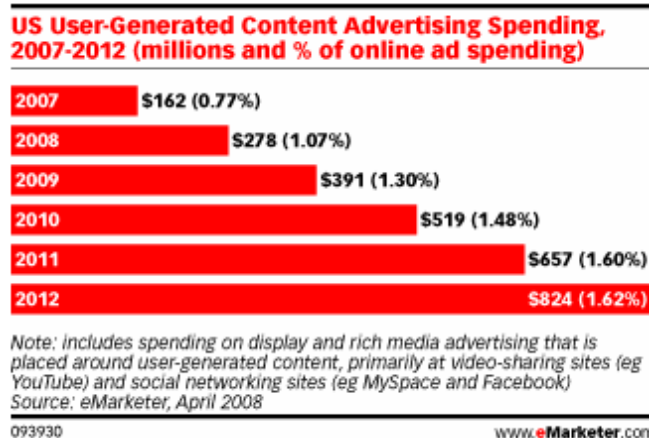
Source: eMarketer, April 2008

According to these estimates, **UGC advertising revenues generated 162 million USD in 2007, i.e. less than 1% of total Internet advertising revenues**, and should reach 824 million USD in 2012, i.e. 1.62% of expected total online advertising revenues at that date. **It represents a 400% increase.** Even if the growth rate is quite impressive and even higher than online advertising growth rate, in proportion of the online spending and in comparison with the advertising spending in other media, the total UGC advertising revenue remains modest, but with a potential to grow.

ScreenDigest also provides similar data for the US market. **According to ScreenDigest**, video-sharing sites and social networks **generated 228.7 million USD in 2007** and will generate 623 million USD in 2012 of advertising revenues, i.e. "only" a 173% increase (Source: ScreenDigest, March 2008, quoted by eMarketer). In fact, **ScreenDigest downgraded its revenue expectations between May 2007 and March 2008**. Actually, ScreenDigest forecasted in May 2007, that UGC services would generate 515 million USD in 2007 and 956 million USD in 2011. ScreenDigest notices a strong growth in videos consumptions but at the same time "***the failure of video-sharing sites and social networks to monetize their assets in a meaningful way***"[10].

In 2007, Magna Global anticipated that online video revenues would reach 365.5 million USD for 2007 and 560 million USD in 2008, i.e. a 55.5% increase.

Even if the figures are quite different, they all converge on the fact that advertising spending on UCC services remains modest in comparison with other industries, in particular media industries advertising revenues. It seems that **UCC advertising revenues are close to 1% of total online advertising spending**.

If we assume that the same percentages could apply to the Western European markets than for the US market, it would mean that UCC services generated around 80 million USD in 2007 and will generate close to 300 million USD in 2010.

Table 17: Estimates of UCC advertising expenditures for Western Europe

(in billion USD)

	2007	2008	2009	2010
Internet advertising expenditures	9 997	12 752	15 857	19 516
- of which UCC spending	*77*	*136*	*206*	*289*

Source: IDATE for UCC spending estimates and ZenithOptimedia for the Internet advertising expenditures

Growth rate in UCC advertising revenues is expected to be higher than online advertising revenues by 2012, but the various uncertainties regarding the ability of UCC platforms to monetize their services and the current reluctance of advertisers to be present alongside such content, by nature unpredictable, explain the cautious forecasts of analysts. Moreover, YouTube like DailyMotion seem to put the stress on monetizing professionally produced content rather than user created content. Consequently, we may presume that if main UCC services players like YouTube, which attracts around 45% of all video viewing visits on the web (Source: Compete.com) and which market share is constantly growing, are facing difficulties in monetizing their assets through advertising and are looking for complementary sources of revenues for financing their activities (either e-commerce or sponsored videos), the ability of less popular UCC services to earn their living with advertising revenues only might be limited. New methods are also maybe required to do ads on UCC services.

According to a Bernstein Research report, YouTube will generate around 164 million USD in 2008 and Forbes reported that YouTube will pull in 200 million USD in revenue this year (i.e. between 59% and 72% of UCC advertising revenues forecasted by eMarketer) against 80 million USD last year. Bear Stearns estimated that YouTube would pull in 90.2 million USD in domestic revenue and 13.8 million USD in international revenue this year, with the vast majority of that coming from banner ads displayed next to videos. YouTube partner videos are the only ones on the site for which YouTube shows overlay ads, which it says it tries to sell for a 20 USD CPM (cost per mille). Bear Stearns said it expected 22.6 million USD in overlay ad revenue domestically this year.

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[10] Arash Amel, ScreenDigest's head of broadband media, quoted by eMarketer in an article from April 22, 2008 "*Ads and User-Generated Content*".

Hulu, with much less traffic, has made 25 million USD in 2007 and expects around 100 million USD in 2008 because of its brand-friendly professional content.

A glimmer of hope: according to Jupiter Research, **80% of online video users accepted the presence of advertising as a trade-off for providing free online video content**. Only 20% of online video users said they would only watch online video if it had no ads at all.

Innovative forms of online advertising could change the market

Facing copyright lawsuits from major media companies like Viacom, Google (the owner of the video sharing site YouTube) pushed its sister company to innovate in the field of advertising.

YouTube introduced at the end 2007 a technology called Video ID which allowed copyright owners to compare the digital fingerprints of their videos with material on YouTube, then flag infringing material for removal. Instead of demanding their material be taken down, media companies opted massively to the alternative offered by the technology: companies can "claim" the videos and start showing ads alongside them, creating a new revenue stream for both YouTube and the content owners. According to David King, a product manager at YouTube, 90 percent of the copyright claims made using the identification tool remain on the site and are converted to advertising inventory. The other 10 percent are either removed from the site or tracked by the content owner.

YouTube says the claiming process had more than doubled the number of videos that its 300 Video ID partners can monetize, but the total number is still small since ads would appear on less than 3% of video pages.

But, as mentioned previously, UCC platforms are still in their infancy and new forms of advertising will have to be developed. As Eric E. Schmidt, Google's chief executive, said in July 2008[11]: "I personally do not believe that the perfect ad product for YouTube has been invented yet."

The case of mobile UCC

According to Juniper Research, ad-funded social networks will provide the bulk of revenues in the mobile user-generated content space by 2013.

The total value of the mobile UGC market - comprising social networking, dating and personal content delivery services - will rise **from nearly 1.1 billion USD in 2007 to more than 7.3 billion USD in 2013**, with social networking overhauling dating to become the largest revenue generating segment by 2009. **Advertising** should have an increasing importance since it **should account for nearly one-third of total mobile UGC revenues** by the end of the forecast period, and more than half of mobile social networking revenues. Around 9 billion downloads should be registered within five years on mobile sites.

This is a major change in the initial perception of mobile services' potential revenue. Operators previously thought that users would pay a small fee to access their fixed UCC services on mobility. It now seems that to achieve mass adoption, access will have to be free of charge, with advertising sustaining the model and the sale of premium content to complement the revenue.

According to a Mobixell Networks' study, the 16-35 year-olds will use more mobile services such as MMS if they were for free. They will accept in exchange to watch an ad.

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[11] Cf. New York Times, August 16, 2008, " *Some Media Companies Choose to Profit From Pirated YouTube Clips*"

Figure 78: Mobile UCC market by service type, 2007-2013
(in million USD)
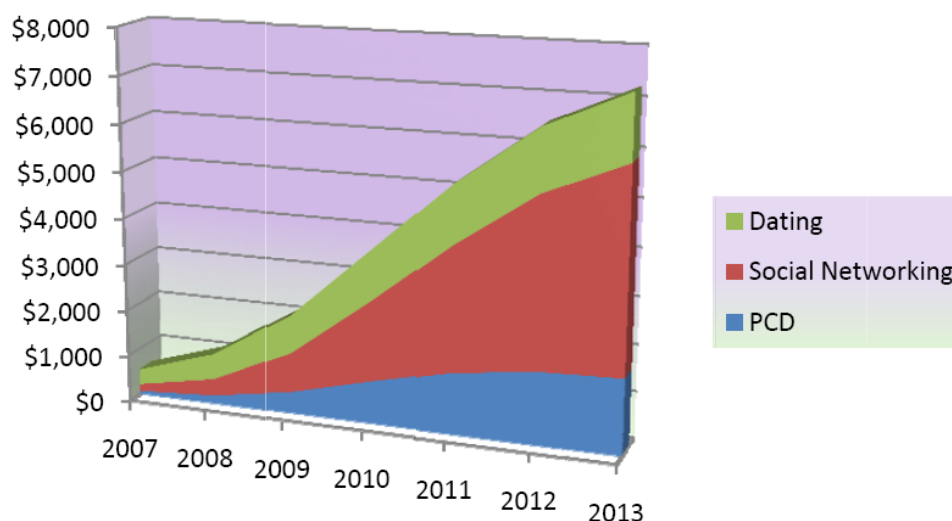
Source: Juniper Research

Mobile UGC platforms should gather more than 730 million members in 2013. They are only 54 million today. China and Far Eastern countries should be the main markets for these services, as well as India which should become the first market for mobile dating services by 2010.

The Juniper report also observed that, while the iPhone had substantially increased public awareness of mobile content services, there was significant scope for improvement with regards to the marketing of such services within the industry as a whole. It also stressed the need for operators to reduce data costs outside of bundles to encourage casual use of social networking and dating services.

1.6.2. Subscription and a la carte revenues

The subscription and pay-content revenues correspond to different sources of revenues:

- First of all, monthly, quarterly or yearly subscription fees to access to premium services (for example extra storage capacity for photo-sharing sites),
- Or subscription fees to access to content (like for a TV premium channel, like PersoTV),
- Or revenues generated by the sale of user created content (like Lulu) or the sale of goods/items derived from UCC (for example the sale of tee-shirts or mugs created with photos uploaded by users).

UCC platforms also derive revenues from the licensing of content and technology to third parties and also from the sale of personal data and/or of aggregated data for statistical analyses.

Unfortunately, figures on these kinds of revenues are scarce. The US Online Publishers Association (OPA) used to publish a report dedicated to "Online Paid Content U.S. Market Spending" which provided with interesting data on online revenues derived from paid content and services. But the latest version of this report is from March 2006 and the data only cover the 2001-2005 period. Nevertheless, and even if they include far more than just UCC revenues, these figures are quite interesting in the respective market share of online advertising and online paid content revenues.

The free ad model still dominates the paid model…

Income generated by the sale of content and services (with adult content still the top earner) totalled 2 billion USD in the US in 2005, equal to just over 16% of online ad revenue that same year (Source: OPA).

Table 18: Revenue generated by online paid content and advertising in the US

(billion USD)

	2001	2002	2003	2004	2005
Revenue from paid content and services	0.7	1.3	1.6	1.8	2.0
Revenue from online advertising	7.2	6.0	7.3	9.6	12.5

Sources: OPA and IAB

… even though the paid model now represents significant revenue

Although revenue from the sale of online content and services remains modest, it has nevertheless been increasing steadily for several years now, having more than tripled between 2001 and 2005. In 2005, the largest portion of revenue from online products was generated by subscriptions to multimedia services, entertainment content downloads, dating services and the sale of financial information and investments advice.

Figure 79: Revenue generated by paid online content in 2005 in the US, by category
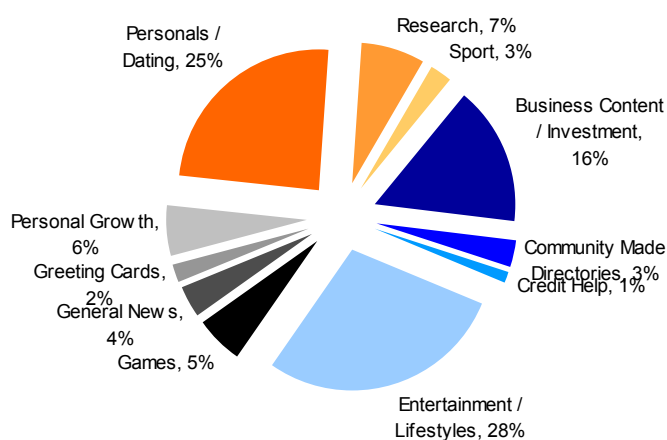
Source: IDATE according to OPA

At that time, the paid model still occupied a minor role on the web, however, and was confined chiefly to high value-added services and exclusive premium content.

It is to be noticed that the Entertainment/Lifestyles category[12] benefited from the highest growth rate between 2004 and 2005 (+38.8%), whereas the Community-Made directories category[13] experienced a negative growth (-7.3%) in the same time.

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[12] Entertainment/Lifestyles - Includes digital music individual downloads and subscription services (e.g., iTunes, Napster, and Rhapsody) and multimedia sites (e.g., Real.com and Movielink.com), as well as humor, recipes and other content intended for amusement, leisure and diversion.

[13] Community-Made Directories - Includes sites whose content is created in large part through the efforts of other site visitors; for example, Ancestry.com, Classmates.com and IMDB.com.

Figure 80: Online Content Spending by Category of Content, 2004 – 2005
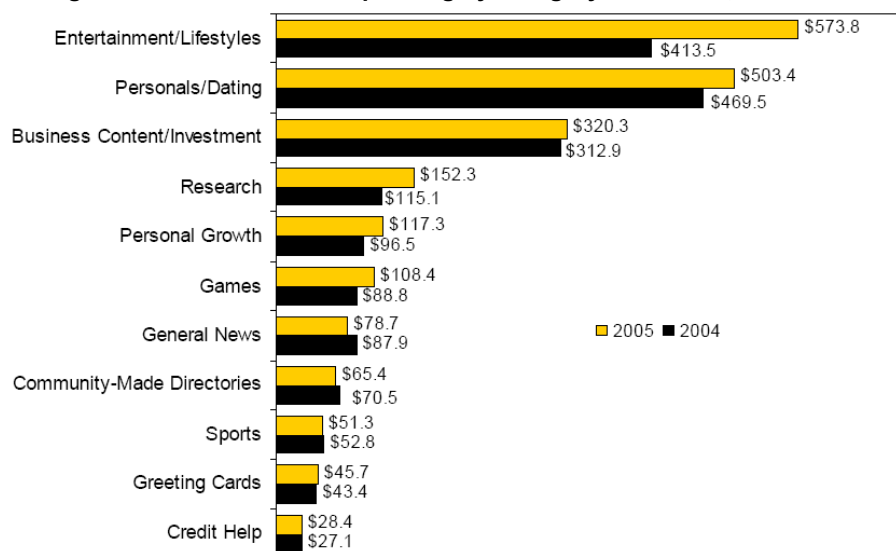
Based on Online Publishers Association/comScore Networks research
Copyright © 2006 Online Publishers Association (OPA)

Source: OPA in "Online Paid Content U.S. Market Spending Report, Full Year 2005"

A model dominated by monthly subscription sales

On average, subscription sales dominated the single purchase of paid content (78.4% vs. 21.6%). But single purchase share of paid content experienced a strong growth (essentially thanks to the digital music downloads). It increased from 15.4% in 2004 to 21.6% in 2005, for a 40% increase. Single purchase revenue increased 61% in 2005 to 442.2 million USD, up from 274.7 million USD in 2004. The Entertainment/Lifestyles category, which includes digital music, experienced a 115% single purchase revenue growth, from 125.7 million USD in 2004 to 270 million USD in 2005.

Figure 81: Ratio of Single Purchase to Subscription Sales by Content Category, 2005
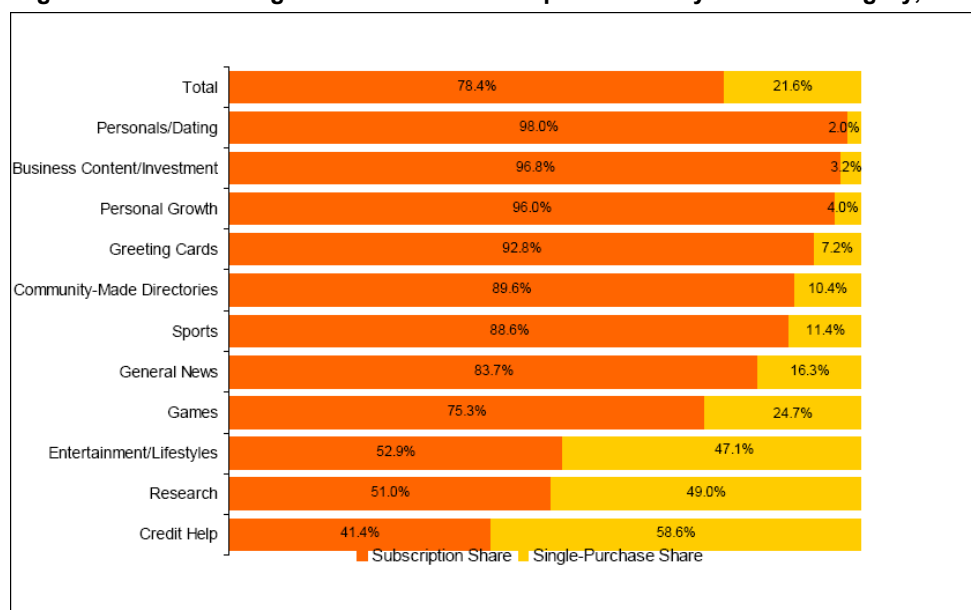
Source: OPA in "Online Paid Content U.S. Market Spending Report, Full Year 2005"

Among subscription sales, monthly subscriptions were the predominant revenue model and their share were still growing, increasing 6.4% from 57.6% of total subscription revenue in 2004 to 61.3% in 2005.

Figure 82: 2005 Online Content Spending by Pricing Model

Single-Purchase Share 21.6%

Subscription Share 78.4%

Other Subscriptions 7.9%

Monthly Subscriptions 61.3%

Annual Subscriptions 30.8%

* "Other" includes weekly, biweekly, quarterly, semi-annually and other subscription terms.

Based on OPA/comScore Networks Research
Copyright © 2006 Online Publishers Association (OPA)
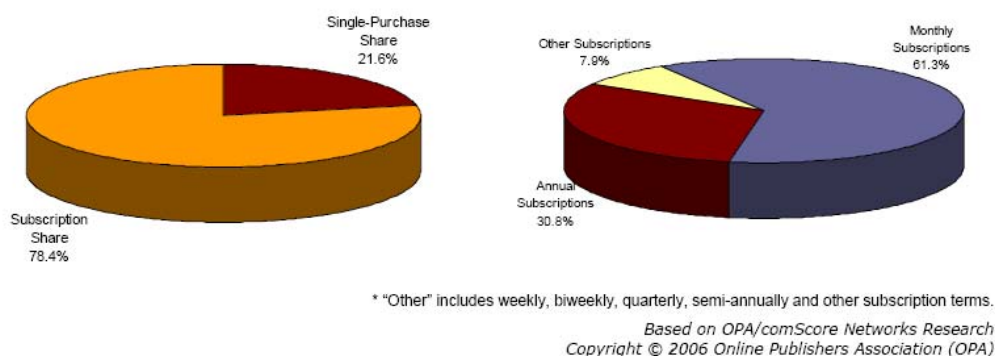
Source: OPA in "Online Paid Content U.S. Market Spending Report, Full Year 2005"

Monthly subscriptions accounted for the majority of subscription revenue in most categories, with the exception of Community-Made Directories in particular, for which annual subscriptions were favoured by users.

It is however to notice that annual subscription revenue also increased for Entertainment/Lifestyles in 2005 at the expense of monthly subscriptions.

Figure 83: Share of Subscription Revenue by Term, 2005

	Monthly	Annual	Other*
Total	61.3%	30.8%	7.9%
Games	78.2%	18.7%	3.1%
General News	75.8%	18.5%	5.8%
Personal Growth	72.9%	19.8%	7.3%
Personals/Dating	71.0%	18.3%	10.7%
Entertainment/Lifestyles	61.6%	33.3%	5.1%
Greeting Cards	56.8%	39.4%	3.7%
Research	51.3%	44.7%	4.0%
Business Content/Investment	49.8%	43.3%	6.9%
Sports	40.9%	51.7%	7.3%
Community-Made Directories	19.5%	56.1%	24.3%
Credit Help	11.2%	85.1%	3.7%
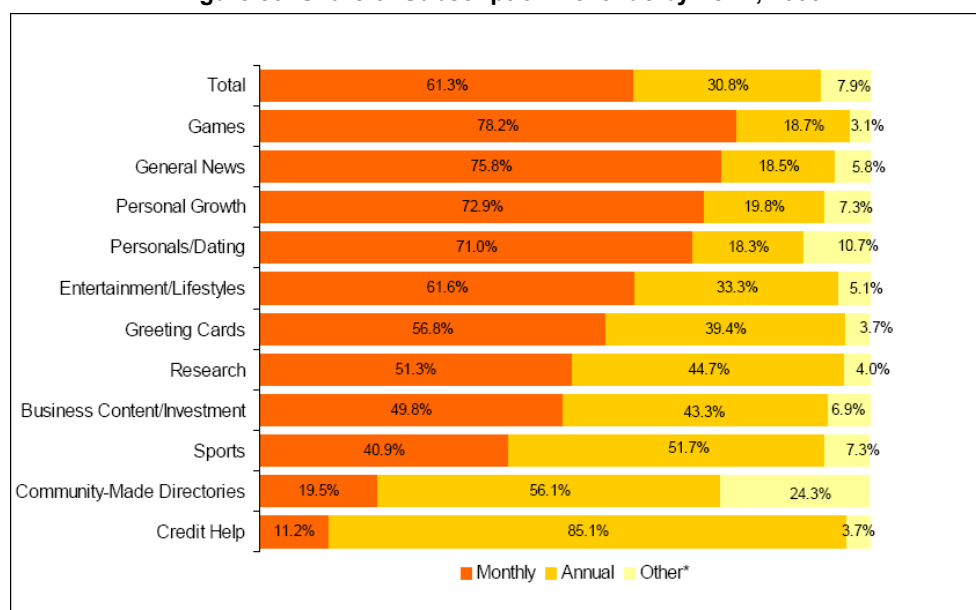
Source: OPA in "Online Paid Content U.S. Market Spending Report, Full Year 2005"

Complementary research by the Online Publishers Association (OPA) shows the speed of the move towards subscription websites.

- By the end of 2007, 80% of online publishers were charging a subscription for their web content. In 2004, the figure was 54%.
- Subscriptions are 90% of all online content sales; the remaining 10% are one-off sales, e.g., digital books and music.
- In the US, 16 million consumers currently pay for online content
- Paying for online content via subscription is growing 11% faster than the growth in ecommerce, i.e., buying physical goods from online stores such as Amazon.

1.6.3. Donation revenues

Revenues derived from donation are another main source of revenues, in particular for wikis websites.

The most emblematic wikis, Wikipedia, with nearly a quarter of a billion people visiting Wikipedia every month, generating nearly 4 billion page views (Comscore worldwide, February 2008), derives its revenues from the Wikimedia Foundation, a non-profit organization.

Total donations and other income increased from 1.5 million USD in 2006 to 2.7 million USD in 2007. The foundation had total expenses of about 2.1 million USD. Wikipedia has engaged in significant fundraising efforts over the last year. The foundation has 15 employees and hopes to grow to 25 by 2010. In March 2008, the Wikimedia Foundation announced a 3 million USD donation from The Alfred P. Sloan Foundation. The donation will be paid over three years.

Some rumours say that Wikipedia should seriously consider proposals to become financially independent via advertising on the site.

1.6.4. Revenue sharing with content creators

Not only UCC services can derive revenue from their activities, but the content creators can also earn incomes from their creation, either directly through the sales of their content on the website or thanks to the sharing of advertising revenues, or indirectly since some artists could thanks to UCC services be recognized and signed by major studios, labels, broadcasters and so on. That is why it is not surprising that talent search services are particularly active in this field.

Making money does not seem to be a main concern for people sharing content on the Internet according to experts. This impression is also confirmed by the last study conducted by Technorati on the State of the Blogosphere. People are mainly blogging for fun but a great part of them could also be interested in making money on their blog if there are some opportunities. According to the study, 20% are currently making some money out of blogging, out of which 2% claim that blogging is their primary source of income.

Figure 84: Blogging as a source of income
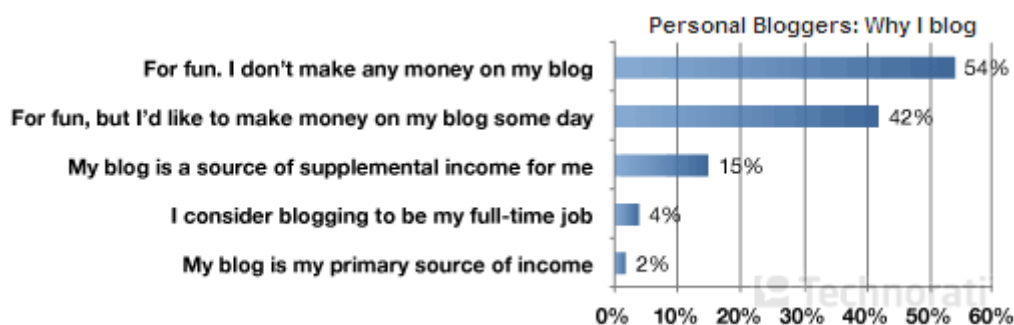
Source: Technorati, *State of the Blogosphere,* 2008

According to Technorati, the majority of bloggers (either personal, professional or corporate) have advertising or another method of revenue generation on their blogs. Search ads, display ads, and affiliate marketing are the most common means of generating revenue. As Technorati puts it "marketers realize that bloggers are creating high quality content and attracting growing, loyal audiences".

Figure 85: The favourite means of generating income on blogs
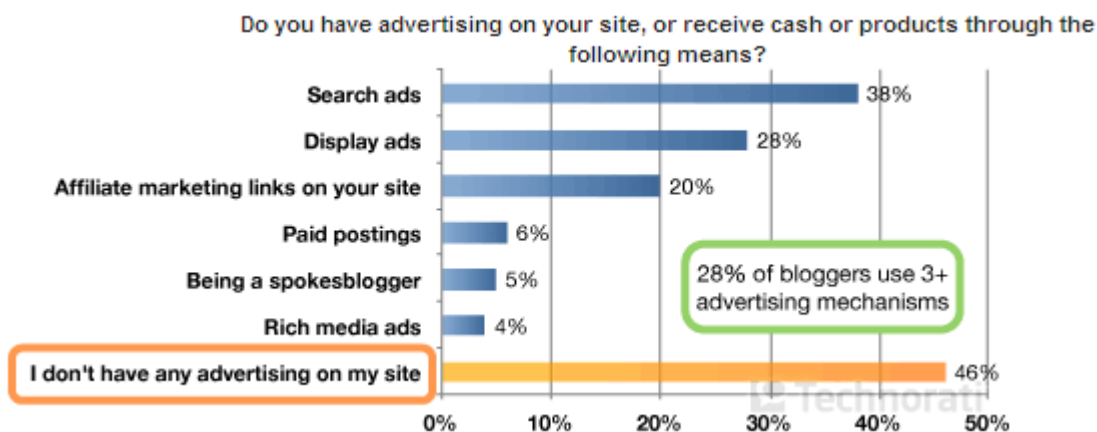
Source: Technorati, *State of the Blogosphere,* 2008

Among bloggers who do not have advertising on their site, ad clutter, lack of interest, and low traffic numbers are the main reasons why advertising is not on their blogs.

Figure 86: The main reasons why bloggers do not have advertising on their blogs
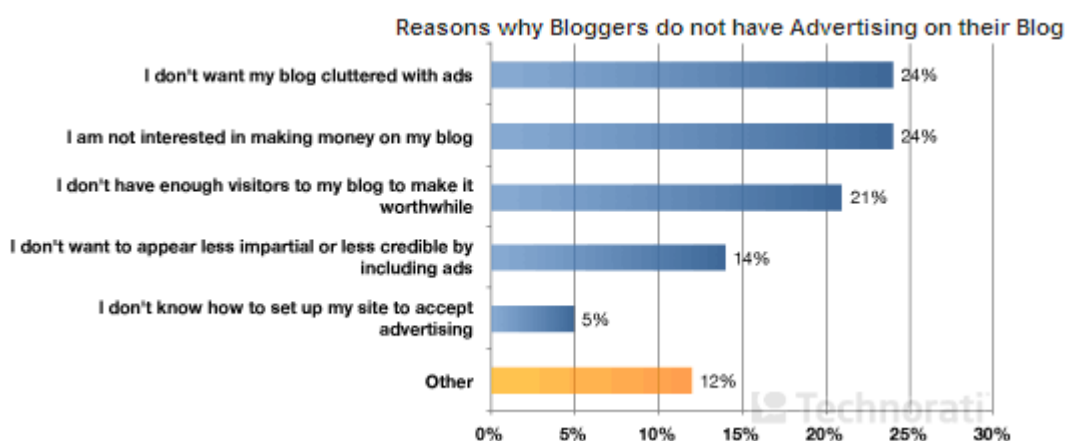
Source: Technorati, *State of the Blogosphere,* 2008

According to Technorati's estimates, the average annual blogger revenue is more than 6,000 USD. But U.S. bloggers earn an average of 5,000 USD only, bloggers in Asia earn 50% more on average and European bloggers earn an average of 75% more than U.S. bloggers. The top 1% of bloggers earn 200,000 USD and more. Among active bloggers who were surveyed, the average income was 75,000 USD for those who had 100,000 or more unique visitors per month.

Table 19: Annual revenue from blog (in USD)

	MEAN annual revenue	MEDIAN annual revenue	MAXIMUM annual revenue
U.S. bloggers with advertising	5,060	200	350,000
European bloggers with advertising	9,040	200	324,000
Asian bloggers with advertising	7,440	120	250,000

Source: Technorati, *State of the Blogosphere,* 2008

Table 20: Average CPM for ads on blogs (cost per thousand impressions) (in USD)

	MEAN CPM	MEDIAN CPM	MAXIMUM CPM
U.S. bloggers with advertising	4.20	1.20	30
European bloggers with advertising	3.31	0.55	50
Asian bloggers with advertising	6.21	1.30	55

Source: Technorati, *State of the Blogosphere,* 2008

High revenue bloggers (first 10%) earned an average of 19,000 USD annually. They invest far more resources (both time and money) in their blogs than average bloggers:*

- 81 monthly blog posts (vs 37 overall),
- 57% spend more than 10 hours per week blogging (vs. 24 overall);
- They invest annually 7,400 USD (vs. 1,600 USD).

Table 21: Examples of revenue sharing between UCC services and content creators

Category	Service	Description
Video sharing	YouTube	YouTube paid out more than 1 million USD in total revenue to user partners as part of the Partner Program between December 2007 and April 2008. The Partner Program is available to users from the United States, Canada, United Kingdom, Ireland, Japan and Australia. The amount of the revenue sharing depends on the notoriety of the content.
	TuClip	Authors of the videos selected on Antena 3 receive 100 EUR - Author of the video selected as being the best of the week receives 600 EUR
Social Networks	Dada	Not really revenue sharing, but users can earn money thanks to the ads present on their own pages and/or present on the pages of contacts they have invited
	MySpace	For the moment, no specific programme has been implemented to monetize UCC and share revenue with their authors. However, developers will be given the right to monetize themselves, through advertising, the applications they created on the MySpace Developer Platform and to keep all revenue.
Citizen Journalism	AgoraVox	In the long run, the authors of the best stories will be remunerated depending on the traffic and interest they generate. In case the website is successful and generates important traffic, its cofounders commit themselves to "fairly reallocate" part of the generated advertising revenue.
	OhMyNews	OhmyNews shares its revenues: when a story is published on the website's main page, his/her author receives 20,000 KRW (about 13 EUR). Before September 2007, an article published anywhere else on the online newspaper's site was also remunerated with a 2,000 KRW payment (about 1.3 EUR).
	Skoeps	50% of the revenue (~50 EUR) from content sales was shared with users that generated the content. Movies were sold more often than pictures, because the pictures were of too low quality to be suitable for editors of press agencies and news papers Part of the advertising revenues was shared with the skoeps reporters
Video Games	Kongregate	Developers can get revenue from the games they uploaded if it attracts enough people or has a high enough rating The highest rated game per month wins cash and a portion of the advertising revenue is shared with the developer (only if advertising revenue is 25+ USD) Kongregate shares between 25% and 50% of ad revenue generated by games with their respective developers Kongregate also sponsors games which are hosted exclusively on Kongregate; they receive 15% more advertising revenues Kongregate pays skilled developers between 20,000-80,000 USD to create premium games to provide their community with quality games. Each premium game comes with a free version that can be upgraded to paid premium version. 80% of the revenue from in-game micro transactions goes to the game creator
	WeGame	Since September 2008, WeGame has started tracking the video contributions of its users week-to-week, and the top 5 placers can win prizes. First place gets a 250 USD Amazon.com gift certificate, 2nd gets a 100 USD gift certificate, 3rd gets a 50 USD gift certificate, and 4th and 5th both get a 25 USD gift certificate

Category	Service	Description
Talent search	SeeMeTV	Each video download normally costs 25 Eurocents. From this amount, 10% is shared with the video owner
		When a users' balance does not reach 10 EUR, Vodafone does not share the revenues
	Lulu	Not really revenue sharing, but it is Lulu's business model which fully relies on a small commission it takes when someone buys users' content. Lulu's commission is a small markup of the amount users set as their creative revenue. The purchase price of books, calendars, CDs and DVDs also includes a base cost for raw materials and printing service.
		The Lulu commission is 25% of the Creator Revenue. So, the Lulu commission equals 20% of the total profit of each item sold. For example, if a user publishes a book that costs 5.00 USD to manufacture and chooses to receive 4 USD in Creator Revenue, Lulu will set the price of users' book as follows:
		• Manufacturing cost: 5.00 USD
		• Creator Revenue: 4.00 USD
		• Lulu service fee: 1.00 USD
		• Final price of download: 10.00 USD
	Manuscrit	Le Manuscrit Publisher pays commissions to its authors:
		• For electronic files:
		- 25% of DF price between 1 and 50 copies sold
		- 30% of DF price from 51 to 200 copies sold
		- 35% of DF price between 201 and 500 copies sold
		- 40% of DF price beyond 500 copies sold
		• For print on demand books:
		- 8% of DF price from 1 to 500 copies sold
		- 10% of DF price between 501 and 1000 copies sold
		- 12% of DF price from 1,001 and 3,000 copies sold
		- 15% of DF price beyond 3,000 copies sold
		These royalty rights do not apply to copies bought by the authors, neither to copies send in promotional ends to partners, journalists, etc.
		In its publishing contract, Le Manuscrit Publisher commits itself to pay is author if it makes direct use of the secondary and derived rights of the book. The amount of remuneration should be fixed within the framework of "good faith bargaining".
		The contract also specifies that, in the case when a third party uses the secondary and derived rights of the book, the author receives 40% of Le Manuscrit Publisher DF receipts.
		Finally, it indicates that Le Manuscrit Publisher does not have to pay the author on the revenues it collects from advertising and partnerships or from any revenue source other than book sales.
	MTV Flux	Flux helps users to make money. Users keep 100% of the advertising revenue generated on the web pages that they are hosting. On the additional pages hosted by Flux - such as profile pages, community pages, etc. – Flux splits with the users (50/50) the Flux advertising revenue generated each month. By default, Flux-hosted pages display an ad at page top. Flux also offers ad modules users can drop anywhere on their page(s) to generate additional revenue. For ads other than display ads (e.g., video pre-rolls), Flux earn no revenue share.

Category	Service	Description
	Sellaband	The advertising revenue generated on the website will be credited to the Artists corresponding with the number of free downloads related to their music titles in relation to the total number of downloads. The resulting amount will be distributed between the Artist, the Believers of this Artist and SellaBand, in equal parts. The share of these revenues for the Believers will be split pro rata according to the number of parts of this Artist the Believer has purchased.
		The profit of the standard album will also be split equally between The Artist, The Believers and SellaBand. This will amount to 2 USD for each party involved. If a sale (Download or Regular CD) is made directly through a Believer's profile, he/she will be allocated an extra 10% to his/her account. This percentage will be taken off the SellaBand-percentage. The 2 USD for The Artist, as well as the 2 USD for The Believers are net profits and are fixed amounts.
		Each audio track is sold 50 USD cents. On every paid download there will be a net profit of 30 USD cents. The profit will also be split equally since 10 cents go to The Artist, 10 cents to The Believers and 10 cents to SellaBand, unless the purchase is made directly through one of the Believer's Shops, in which case 10% commission will be allocated and only 5 USD cents go to SellaBand.
		Songs recorded with SellaBand will be published by SellaBand Publishing. In this agreement 60% of the publishing income from these songs goes to the artist, 10% goes to the Production team and the rest (30%) goes to SellaBand
	Ziddio	Ziddio regularly holds contests where winners are awarded with "exotic" prizes such as a TV production deal, a gaming system, a stack of cash, etc.
UCC on the TV set	Fame TV	To urge users to submit content, Fame TV grants a 0.10 GBP reward to an author each time its content generates a premium SMS vote, charged 1 GBP to users
Content ranking	Threadless	Threadless shares its revenues with tee-shirt designers and slogan authors, and also pay members who contribute to sales. A member whose design is selected for print will receive: • 2,000 USD cash • A 500 USD Threadless gift certificate (that can be redeemed for 200 USD cash) • 500 USD cash each time his design is reprinted • Up to 10,000 USD more if he wins a "Bestee" in the Threadless Awards • Extra 500 USD if his design is chosen to be a Threadless print A member whose slogan is selected for print will receive: • 200 USD cash • A 100 USD Threadless gift certificate Threadless members can earn StreetTeam points they can spend in the online Threadless shop to buy tee-shirts. Each point earned is worth 1.50 USD in Threadless store credit. • A member will receive 2 StreetTeam points (3.00 USD) if he links to Threadless from other websites or through email using his unique StreetTeam URL and if his referral results in a sale. • A member will receive 1 StreetTeam point (1.50 USD) if he submits a photo of him wearing a Threadless tee-shirt (he can only submit one photo per tee-shirt he owns). • A member whose photo is used on the product page will receive 10 StreetTeam points (15 USD).

Source: IDATE according to companies

1.6.5.   Highlights

UCC platforms are still struggling to find out sustainable business models. Innovative models will have to be developed but already some new forms of monetization through e.g. advertising begin to appear.

Even if not their top priority, content creators also find ways of earning money thanks to their creations: direct monetization and revenue sharing programmes are common ways of making money on UCC platforms.

But the benefits for the creators are not limited to the money they can derive from their content and the personal satisfaction of bloggers is considered by them as being their main success metrics.

Figure 87: Success metrics
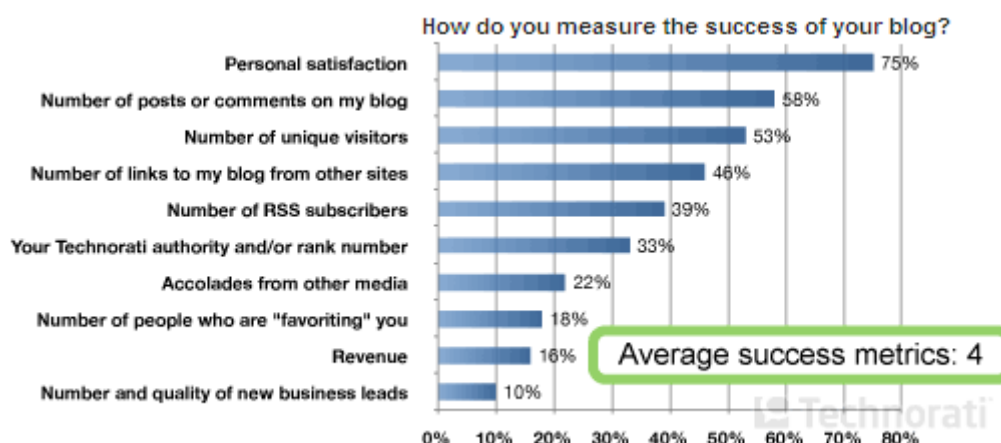
Source: Technorati, *State of the Blogosphere,* 2008

Added to self expression, sharing expertise and networking which are the main reasons for blogging, this helps in demonstrating that the value of UCC should not be measured only in economic terms but also in social terms. Peer recognition, ability to meet new people, maintaining relationships with family, participating in the online social life are probably as important benefits – or even more – as revenue.

The majority of bloggers recognize massive positive impacts in their personal life. Blogging has increased their circle of friends, brought them closer to their circle of friends and family members, or has gotten them more engaged in their hobbies. Only a small minority claim to have experienced a negative impact on their relationships as a result of their blog.

Figure 88: Impact of blogging on personal life
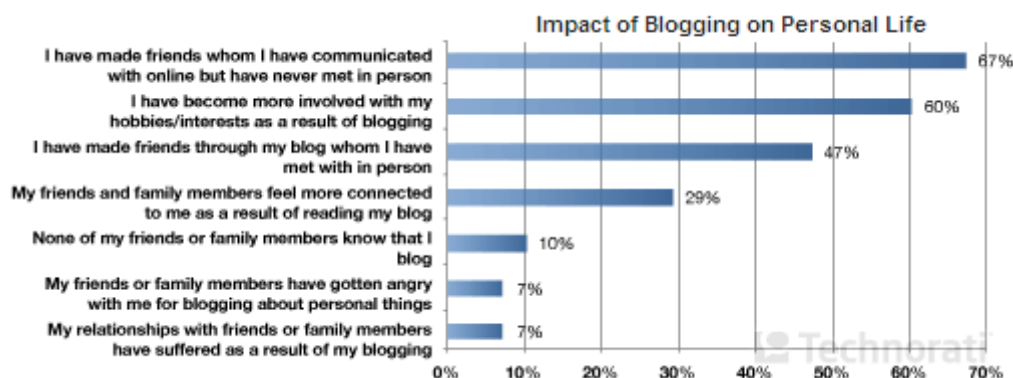
Source: Technorati, *State of the Blogosphere,* 2008

Blogging has also brought new opportunities to bloggers as a result of their blog such as participating in an event, contributing to a print publication, being on TV and/or on the radio.

Figure 89: Opportunities brought by blogging

Have you been invited to any of the following as a result of your blog?

Interest group event	27%
Blogger roundtable	24%
Reviewer or endorser	21%
Print media contributor	20%
Speaker or panelist at industry event	19%
Broadcast media appearance	17%
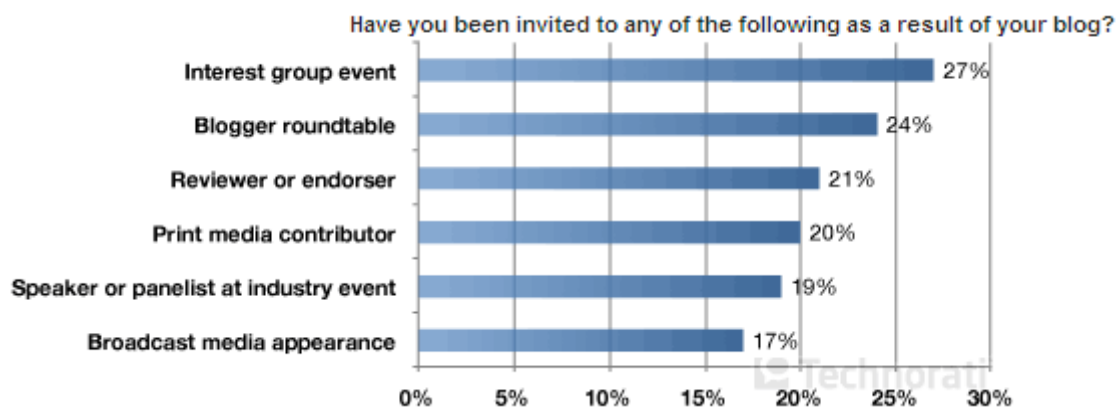
Source: Technorati, *State of the Blogosphere,* 2008

2. Description of existing business models in the field of UCC

The UCC phenomenon is still too recent to ensure that business models should be definitively set. UCC platforms are still struggling – like the huge majority of Web 2.0. sites – to find out viable business models, suited to a Web 2.0 audience.

This chapter is dedicated to a description of the main business models on which UCC platforms currently rely on. But we cannot exclude that they will evolve in a near future, so as to better value the inventory and to find ways of monetizing the content itself or the audience or traffic.

What follows must therefore be considered as **a snapshot of the 2008 landscape** and does not presume future evolutions. Nevertheless, we can already assume that:

- **Advertising will hold a major place in the financing of UCC services**: since users seem reluctant to pay for accessing the content proposed on UCC platforms, the latter will have to find other sources of income and will develop in particular free models based on advertising revenue. This implies that advertising adapts first to a 2.0 environment;

- **Subscription and paying models will only be possible for premium services** (by the way not necessarily linked to user-created content): it seems that users are willing to pay only for services such as extra storage capacities, or music downloading or dating services. But that will concern only a minority of users and specific services;

- **Donation models should remain quite limited to very specific services, such as non profit organizations with a confidential audience** (so as to limit the operational costs): up to now, it seems that the only sustainable services based on a donation model are those financed directly by their own creators who pay for covering the direct expenses, which is only possible for non popular websites (otherwise the technical costs would become prohibitive for individuals financing the service);

- **Licensing and e-commerce should also play a growing role in the future economy of UCC services**: some UCC platforms already market their technical platforms to other Internet players as white label products, or establish partnerships with online retailers that pay them a set commission or a percentage on the sales made thanks to links from their site, or derive income from direct sales (either of services, or real or virtual goods).

It is to be noticed that most services do not derive revenue from a single source, but from at least two of them. Therefore, it is the share of each source of revenue in the total financing of UCC services – more than the sources themselves – that might evolve in the following years.

Also of interest are the role and intentions of creators themselves. People interviewed during this study mostly consider that **generating revenue is not the main driver for people sharing their content on UCC services**. Expressing oneself, being famous (even if fleeting) or stay tuned to one's community turn to be the main motivating factors.

However, **talent search services** (either platforms fully dedicated to talent search such as Sellaband or platforms hosting a talent search program such as You Tube and its Partner Program) could probably be considered apart, since creators could expect to derive income from their content. But, even in this case, it seems that these services are mainly seen as **a new opportunity to be discovered** (in addition to the traditional ways) r**ather than a way of making money**. When becoming famous or reaching a certain level of notoriety thanks to the Internet, people then aim at joining traditional companies to sell paper books or CDs.

In other words, when it deals with "real amateur" content, people do not expect revenue and accept to share their content for free. When it deals with talented people, UCC services are only a preliminary step before being recognized as a professional. It could be acceptable for such people to share their content for free on UCC platforms since their primary goal is not necessarily to make money directly through the Web but to have the opportunity to become famous and then to make money in a more "old-fashion" way.

So, in the current state of development of UCC services, it seems that the question of the business model far more applies to the websites than to the content creators, except maybe for some successful bloggers. Isabella Löwengrip, a seventeen year old high school student, author of one of the most popular blog in Sweden (which is called Blondinbella) is one example of a blogger

successfully deriving income from her blog. According to Dagens Næringsliv[14], the larger part of her income does not come from advertising but from covert product placement (i.e. that she would be paid to write positive reviews about products). However there is no official data on the revenue actually generated by the blog.

The following table gives a quick overview of the main sources of revenue on which UCC platforms rely on. Advertising is by far the dominant source of revenue, at least in terms of number of services which rely partly or totally on ads. Except some talent search services (which directly sell goods or services or take a commission on UCC sales) and some knowledge sharing sites (which have favoured until now donations), all kind of services expect to get income from advertisers.

It is to be noticed that the sale of virtual items is a critical business for some "non-core UCC" services such as the virtual worlds or some social networks. For example, it represents 90% of Habbo Hotel revenue and 88% of Cyworld revenue.

Donations seem to be limited to knowledge sharing websites. Among the case studies made during this study (Cf. Annexes), we have found no example of UCC platforms benefiting from donations except wikis.

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[14] www.dn.no/d2/article1334573.ece

Table 22: Main sources of revenue of UCC services

		Advertising revenue / Sponsoring	Subscription fees	Donation	Public funding	Licensing / Partnerships	Sales of goods & services	Commission on UCC sales	Non profit
Video sharing	Daily Motion	X							
	Neogen TV	X							
	Pandora TV	X							
	TuClip	X							
Photo sharing	Flickr	X	X			X			
	Fotosik	X	X				X		
	Photobucket	X	X			X			
Social Networks	Cyworld	X(12%)					X(88%)		
	Dada	X	X						
	Islandoo	X	X(in the future)						
	LunarStorm	X (60%)	X (40%)						
	MySpace	X					X(<1%)		
	Serious Talent	X			X				
Knowledge sharing	RocWiki			X					X
	Wer.weiss.was	X							
	Wikilengua			X					
	Wikipedia			X					X
Citizen Journalism	AgoraVox	X		X		X			
	OhMyNews	X(70%)	X(10%)			X(20%)			
	Skoeps	X				X	X		
Virtual World	Habbo Hotel	X(10%)					X(90%)		
	Second Life	X	X				X		
	VirtualMe								
Video Games	Kongregate	X							
	Machinima	X							
	WeGame	X							
Recommendation	Biblioteket				X		X		
	Deezer	X				X			
	Last.fm	X	X			X			
	LibraryThing					X	X	X	

		Advertising revenue / Sponsoring	Subscription fees	Donation	Public funding	Licensing / Partnerships	Sales of goods & services	Commission on UCC sales	Non profit
Talent Search	Backstage				X				x
	Blurb							X	
	SeeMeTV		X						
	Lulu							X	
	Manuscrit	X						X	
	MTV Flux	X							
	Sellaband	X					X	X	
	Ziddio	X	X						
	Zizone	X							
Mobile services	Mobango	X							
	Perso TV	X	X			X	X		
	Qik								**X**(during the β-test)
	Shozu	X	**X**(in the future)			X			
UCC on the TV Set	Fame TV	X					X		
	TV Perso		**X**(included in Free triple-play package)						
Audiobooks	LibriVox								X
Content Ranking	Threadless		X				X		
e-government	FixMyStreet			X	X				

Source: IDATE according to companies' sites

2.1. Business model based on advertising revenues

Despite their massive popularity, UCC platforms **are not managing to generate revenue in line with the size of their audience**, creating uncertainty for the players' business model (which is often over-valued).

MySpace generated less than 0.37 USD/visitor/month in 2007 (estimates indicate less than 0.23 USD for Facebook), compared to 1.2 USD/month/visitor for Yahoo! (for less time spent on the sites).

It does appear that, although **nobody doubts the economic potential of Web 2.0, nobody really knows how to exploit it**.

As it stands, most UCC platforms intend to derive **most of their income from advertising**, but this is a **small market** whose prime beneficiaries are the leading platforms and in particular the leading social networks (Facebook and MySpace). **Improved advertising techniques** and **formats that are more carefully adapted to the specificities of Web 2.0** will be critical to persuade advertisers to devote a larger share of their online budgets to Web sites, and to increase their presence on sites other than the leading social networks.

Recognised for its targeting, segmentation and interactive qualities, **the Internet is currently the most dynamic advertising platform**, with annual growth rates that exceed those of TV, radio, display and print media. The web is now a growing part of advertisers' cross-media strategies: according to Zenith Optimedia, the Internet accounted for 8.2% of ad spending worldwide in 2007 (+1.5 point compared to 2006).

Enjoying a healthy growth rate, online advertising totalled 12 billion EUR in the United States in 2007 (+19.7% compared to 2006) and is expected to reach 13.6 million EUR in 2008. In the European Union, advertisers spent 6.9 million EUR on the Internet in 2007, or 41.6% more than the year before, and forecasts indicate ad spending of 9.1 million EUR in 2008 (Source: IDATE).

Web 2.0 players are nevertheless benefiting very little from this boom. Heavyweights MySpace and Facebook are not generating ad revenue to match the size of their massive membership. Why do these social networks, which are reporting remarkable audience and/or traffic statistics (number of visits and unique visitors, page views, average times spent on the site, visiting frequency, etc.) fail to attract more advertising revenues?

2.1.1.   A narrow and duopolistic advertising market

In 2007, **three quarters of advertisers' spending on social networks were in the United States**, which is expected to continue to account for 71% of ad spending this year. Although its relative weight in the equation is dropping steadily over time, the US could well still capture as much as 62% of the monies advertisers earmark for social networks in 2011.

Social networks that are particularly popular outside the United States are thus forced to share a meagre advertising budget, estimated at less than 600 million USD in 2008 (Source: eMarketer).

**Figure 90: Growth of advertising spending on social networks
in the United States and worldwide, 2006 - 2011**

(million USD)
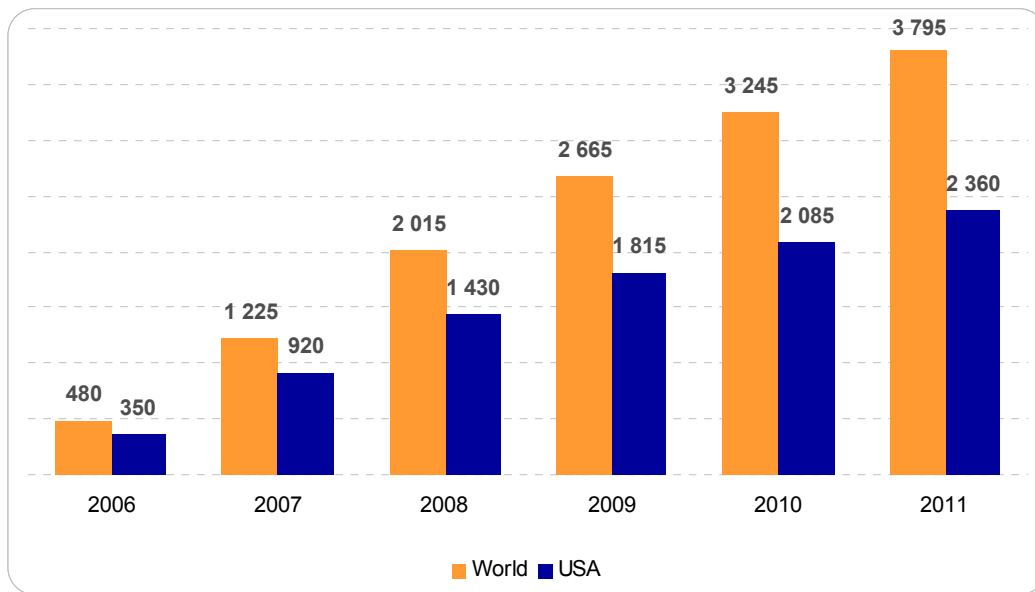
Source: eMarketer, May 2008

Even in the United States, however, where social networks enjoy the largest share of ad monies, these investments still only represent **a fraction of online advertising spending**. This year **only 5.5%** of the 25.9 billion USD spent on online advertising in the United States will help finance social networks. Because of the proliferation of ad formats and platforms on the Web, the relative share of investments enjoyed by social networks could actually decrease in the coming years – down to 5.1% in 2012, according to eMarketer (or 2.61 billion USD of the estimated 51 billion USD that will be spent on online advertising in the United States in 2012). Between 2008 and 2012, the global Internet advertising market is forecast to grow at a higher rate than ad spending on social networks (+96.9% compared to +82.5%).

**Figure 91: Growth of the share of online advertising monies earmarked
for social networks in the United States, 2006 – 2012**
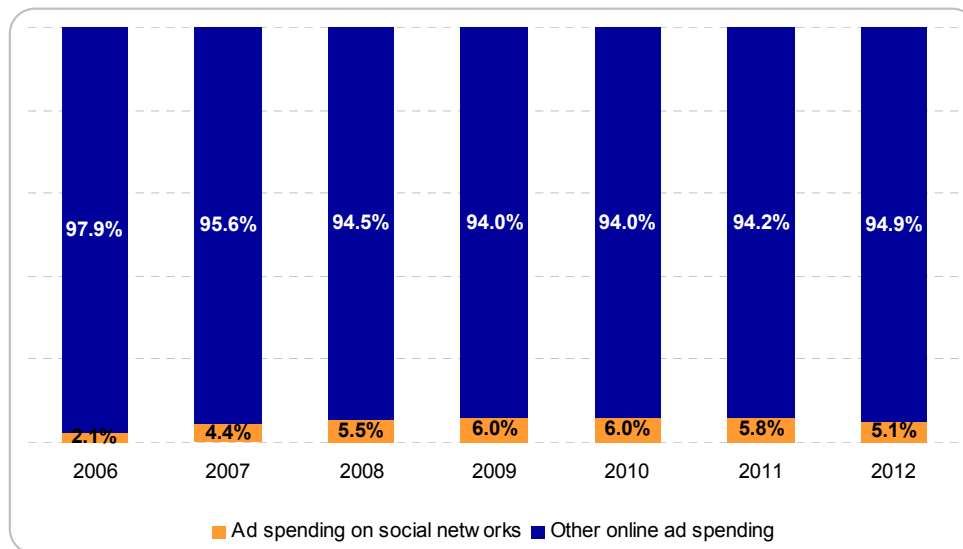
Source: eMarketer, May 2008

And, finally, not only is the advertising market for social networks a modest one, but the bulk of the wealth is being shared by only two sites: **MySpace** and **Facebook** which, combined, are expected to account for **more than 71% of the 1.4 billion USD that advertisers spend on social networks in 2008 in the United States**, only slightly more than they spent last year (+1.2 point).

Figure 92: Breakdown of ad spending on social networks in the United States, in 2007 and 2008
(million USD)
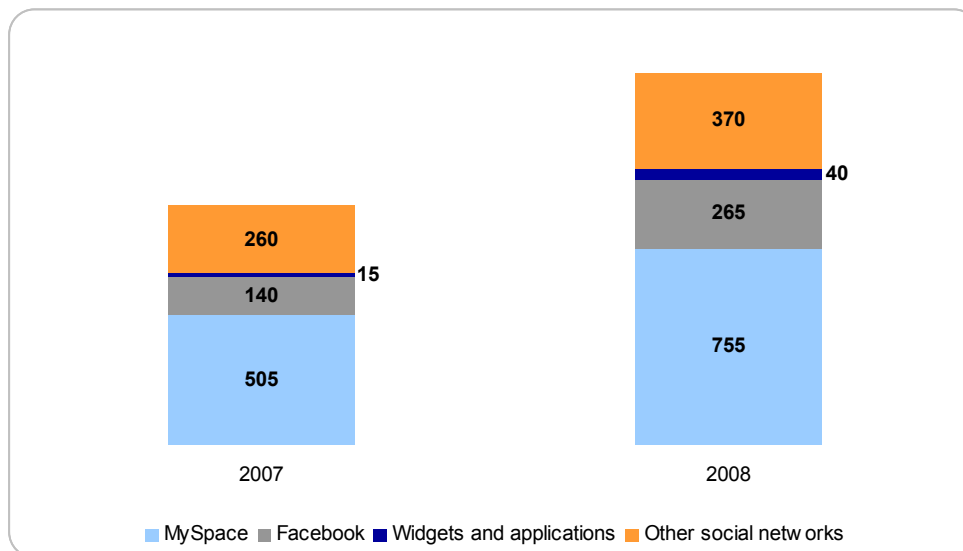
Source: eMarketer

MySpace alone accounts for more than half of all spending, although its share is expected to drop by 2 points between 2007 and 2008, losing out to Facebook in particular, whose share of the monies could increase by as much as 3 points to reach 18.5%.

2.1.2.   A need for new ad formats more appropriate to Web 2.0?

Up until now, attempts to monetise Web 2.0 sites in general, and UCC services in particular, with a large audience and/or high traffic have consisted chiefly of employing 1.0 ad formats, essentially display (banners, interstitials, etc.) and sponsored links. But the suitability of this type of advertising on social networks has not been proven by any means.

Table 23: Forms of online advertising

	Principle	1.0 practices	2.0 practices
Organic advertising	Promoting the brand at a minimal cost via low-cost channels	• Corporate site, press releases picked up by websites and blogs • Optimisation of search results	• Profile on a social network, creation of a virtual community, content sharing
Traditional advertising (media)	Conveying a message (generally identifying a brand), preparing the target consumer for a future purchase, i.e. not necessarily immediate	• Display (banners…) and rich media (video) formats • Sponsoring	• Sponsoring of widgets and 2.0 applications
Customer-driven marketing	Initiatives aimed at allowing consumers to find a vendor themselves	• Sponsored links. • Directories • Affiliate networks (ads and auctions)	Formats to be invented
Direct marketing and promotion	Putting a target customer in direct contact with commercial offers	• e-mailing	Formats to be invented

Source: IDATE

Audience too dispersed to be monetised through display ads

A direct carry-over from offline to the Net, display ads are best suited to highly trafficked sites as they are generally billed in cost per thousand (CPM): the advertiser pays the site carrying the ad each time the advertisement generates 1,000 impressions, i.e. when it has been displayed 1,000 times.

The efficiency of this advertising format on the classic web is **often questioned**. The proliferation of banners detracts from their efficiency, from the appearance of the site and gives users a sense of saturation. To improve the efficiency of display ads, not only does more careful targeting need to be used, but also ensuring the affinity[15] of the ad with the site that is carrying it, in addition to optimising its format, size and location on the page.

Complying with these recommendations is probably not enough to guarantee the effectiveness of a banner ad on a UCC service because of the way the site itself is designed.

On the whole, display is an advertising format that is ill-suited to community-centric services, and especially sites based on the creation of personal profiles, as users are spread out over a huge number of pages. Despite enjoying record traffic levels, MySpace offers very low CPM of around 0.10 USD, whereas the average online display gross rate is in the 10 to 40 USD range.

In addition, the inventory of a user profile is generally less appealing to an advertiser than an editorialised page.

UCC sites only really asset when it comes to display ads is their **home page** which gets a great deal of traffic. Elsewhere, ads displayed on the home page of high-traffic websites, often escape the CPM rule and are billed a daily flat rate, or based on time of day, as is the case with AOL. YouTube, for instance, charges 175,000 USD a day for an ad on its homepage, with an obligation to buy an

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[15] Affinity: percentage of the site's total number of readers which will be receptive to the ad. Affinity expresses the correlation between the platform and the target (source: Publicitor 6th edition, 2004).

additional 50,000 USD of ad space on the rest of the site. For its part, MSN France charges between 300,000 and 500,000 EUR a day, depending on the format, for an exclusive ad on its home page.

Aside from their homepage, UCC services do not offer an attractive inventory to advertisers looking to buy display space online.

Browsing mode ill-suited to sponsored links

On a community-centric service, the starting point for any research is generally the user (identity, tastes, centres of interest, network of contacts, city, job, old school, etc.) and rarely involves typing keywords into a search box, but rather being guided by tags, friends' recommendations and suggestions generated by the site itself, votes from other users, ranking of popular content, etc.

One patent example of the inefficiency of links on Web 2.0 sites is the exclusive advertising partnership formed between Google and MySpace in 2006. Under the terms of the agreement, the search engine agreed to pay the social a guaranteed minimum of 300 million USD a year for three years – a deal that has cost Google much more than it has brought in. Use of sponsored and contextual links is modest on News Corp-owned Facebook, operating more under a media/audience logic than one based on traffic.

Google's failed attempt to apply its AdSense programme as is on MySpace reveals the extent to which carrying 1.0 ad models to 2.0 sites does not make sense, given the specific nature of the community-centric web. As stated by Google co-founder, Sergey Brin, even the world's leading purveyor of online advertising recognizes how hard it is to find an ad model adapted to the particular nature of Web 2.0: "I don't think we have the killer, best way to advertise and monetize social networks yet"[16].

Rich media video, by nature a complicated ad format

Online video is a form of content that is very hard to monetise via advertising, as it embodies a paradox of the passivity of watching a video stream and the web's interactivity. **As a result, players are struggling to find a suitable business model, without detracting from the appeal of the service**. Running a pre-roll or mid-roll ad can put viewers off, while running an end-roll ad is not terribly effective – added to which, inserting an ad in the middle of a video is still a complicated manoeuvre from a technical standpoint.

Video sharing sites also have to contend with an added difficulty: **how to monetise user-generated content**. Often low quality and aimed at a small audience, this type of video is not terribly appealing to advertisers who prefer to associate themselves with professional content. In France, even the site hosts are reluctant to insert ads in videos made by ordinary users, as they run the risk of elevating them to the status of content publishers, and so making the site responsible for any illegal content. Many thus confine themselves to displaying ads on the page (as the player is not full screen), but the effectiveness of this approach is far from having been proven: they need to attract users' attention while they are watching a video, and manage to make them interrupt the flow to click on a banner or sponsored link.

Screen Digest estimates that the ad revenue from user-generated videos will total 336 million USD in 2008 in the United States (+47% compared to 2007).

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[16] BusinessWeek.com, 7 February 2008.

2.2. Business model based on subscription or a la carte revenue

Alongside their free services, some UCC sites also market premium, for-pay services. Often grouped into a **monthly or annual package**, in some cases they are sold **a la carte**, via subscription or billed on a pay-as-you-go basis.

The range of available premium services is made of **a variety of intangible offers**, the added value they offer residing in:

- greater ease of use or convenience,
- preferential access to the site,
- business solutions for managing community-related activities,
- or access to mobile services.

The sale of packaged solutions naturally involves grouping several types of service into a single offer.

The premium services that offer greater ease of use, including such things as ad-free pages and additional storage capacity, are the most common. Services offered outside this category depend on the nature of the site providing them. The premium offer on Ning, for instance – a platform that allows users to create their own social network – logically includes solutions that enable users to manage their sites in a professional manner.

The premium package marketed by music-centric social network, Last.fm, provides an enhanced user experience through a broader array of social and customisation features.

Table 24: Classification of the types of premium services marketed by UCC sites

	Ease of use	Preferential access	Enhanced user experience	Professional management	Mobile services
Flickr	• Unlimited bandwidth • Ad-free browsing and sharing			• Visitor logs and stats	
Photobucket	• Increased storage capacity • Unlimited bandwidth • Ad-free browsing	• Premium tech support • 10% off products sold in the Photobucket online shop			
Ning	• Ad-free browsing • Increased storage and bandwidth capacity			• Personal domain name • Management of ads	
Last.fm	• Ad-free browsing	• Priority access to web servers and radio stations during peak traffic times • Sneak preview of new features and involvement in the site's development	• Access to a personalised radio stream • Creation of a radio station based on favourites		
Cyworld					• Photo and video via MMS on the user's online profile • Ability to transfer items from the web to a mobile
Mixi	• Increased storage capacity			• Blog design tools	

Source: IDATE, based on the sites listed

The term "**freemium**" is sometimes used to refer to **the mixed business models** employed by sites that offer both ad-funded free services and **optional, for-pay services which are generally very inexpensive**, ranging from 2 to 3 USD/month per user:

- Flickr Pro: 24.95 USD/year (or 2.1 USD/month) or 47.99 USD/2 years (or 2 USD/month)
- Photobucket Pro: 25 USD/year (or 2.1 USD/month) or 9 USD/3 months (or 3 USD/month)
- Last.fm: 3 USD/month
- Mixi: around 2.8 USD/month (300 JPY)

The Ning social network creation platform has taken a somewhat different approach, marketing four premium services that are sold separately, with prices ranging from 4.95 to 19.95 USD/month.

The pay-as-you-go services are also very affordable: Cyworld, for instance, bills users 0.50 USD (excluding the price of the call) to transfer content from the web to their mobile.

UCC services based on the "freemium" model benefit from a large user base and bank on the popularity of their free services to persuade their heaviest users to switch to an improved, for-pay version, while most are content to stick with the free one.

These cheap premium services only provide a complementary source of income alongside ad revenue. Marketed in subscription form, they represent a modest but steady revenue stream which helps offset, to some degree, the fluctuations in their ad revenue, and lessens their dependence on advertisers.

Yahoo! is a prime example of the "freemium" model, with 88% of its turnover in 2006 generated by advertising and 12% from the sale of services and content (broadband services, music, games, premium mail, small business services, etc.).

2.3. Business model based on the sale of technology, services and/or goods

Even if UCC platforms are developing chiefly on **a model of ad-funded services that are free for end users**, advertisers' investments are rarely enough to ensure their profitability.

Moreover, **the Internet is not only a medium** but also a technological platform, delivering a vast array of services and a sales channel. The revenue that it is capable of generating derives not only from monetising audience and traffic through advertising, but also from the **sale of technology, intangible services and digital and physical goods**.

2.3.1. White label technology sales

Alongside their services aimed at consumers, some services also market their technical platforms to other Internet players as white label products. Sites without the required in-house expertise can thus equip themselves quickly and easily with community tools (social networks, RSS feeds, wikis, blogs, widgets and mashups) at an affordable price (software licensing model).

A business area exploited by Web 2.0 start-ups

Among the most popular UCC services, few have positioned themselves as providers of a technological solutions, aside from Dailymotion (for Wat, TV channel TF1's online community site), AgoraVox (for Equipe.fr, Clarens….) and Ning for which it is their core business.

As it stands, it is chiefly **small Web 2.0 start-ups** that are investing in this segment (Eyeka, Kewego…). Some have even specialised in providing **Web 2.0 solutions for enterprises** (Awareness, Newsgator, Socialtext…) – a thriving market whose value could increase tenfold in the next six years, going from 455 million USD in 2007 to 4,646 million USD in 2013. Social networks are collaborative tools which are increasingly sought-after by businesses, which accounted for close to a third of the market in 2007 (Source: Forrester Research).

Figure 93: Web 2.0 market for enterprises, by type of tool, in 2007
(million USD)
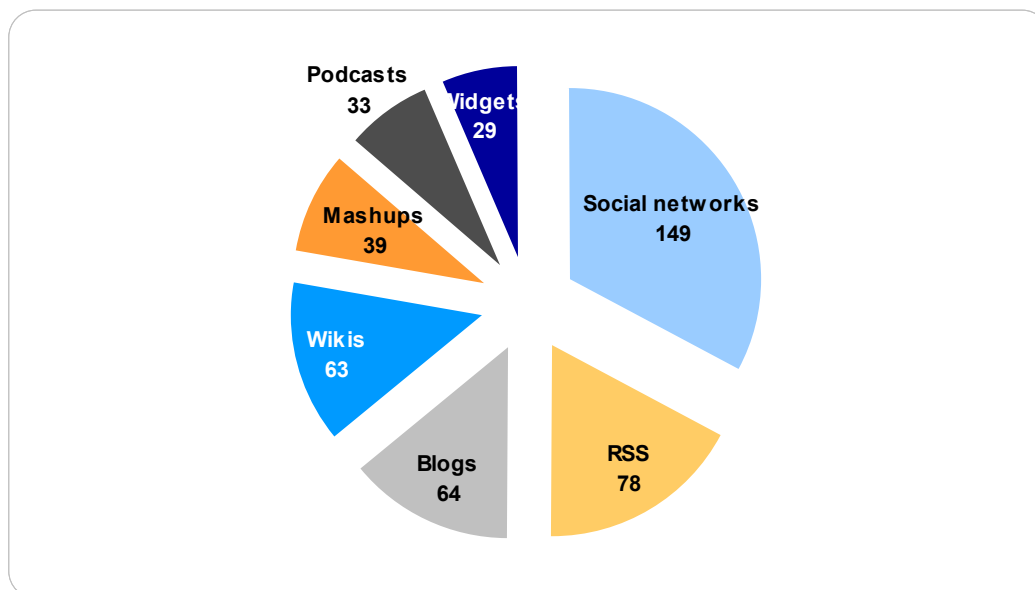
Source: Les Echos, based on Forrester Research and Dow Jones VentureSource

Potential source of considerable revenue

The sale of white label technology is thus an area that has still gone untapped by the leading companies. Although not having the ability to become their central business model, it could nevertheless prove a significant source of added revenue, allowing them to **amortise their software development costs by selling licences to third-parties**.

Amazon has already entered the fray, generating 2.6% of its income in 2007 from the sale of white label solutions. Even if this business area accounts for only a fraction of the e-commerce giant's revenue, it still brought in close to 400 million USD, or more than double Facebook's total income in 2007.

Given their **platform's capacity** to host a huge number of users, the leading players would be entirely legitimate candidates for supplying technological solutions, and would be wise to use their sites to **showcase their technological skills**. By targeting popular community-centric services, those that acquire 2.0 tools will have the **guarantee that they are buying robust technology that has proven itself and is easy to use**.

2.3.2. E-commerce

Business partnerships

Based on the **principle of affiliation**, some UCC sites establish partnerships with online retailers that pay them **a set commission or a percentage on the sales** made thanks to links from their site.

Whether physical or digital, the products offered for sale naturally have a **direct rapport with the UCC service's purpose**. The French version of social Internet radio site, Last.fm, displays links that take users to cultural products retailer Fnac.com to buy concert tickets, to Amazon.fr to order albums or to VirginMega to download individual songs.

Another example is Flickr which has formed partnerships with online companies that specialise in printing photos, posting links to the sites for users who want to have quality print-outs of their photos (rival Photobucket offers the same service).

On the Screening Room service that it launched in June 2008, YouTube shows professional videos, with links displayed alongside the player window that allow users to buy the video on DVD or in digital file format from another site (iTunes, Wholphin…).

These agreements between UCC platforms and online retailers are a reminder that **a great many online advertisers are e-commerce sites**. Affiliations with popular networks is very appealing for online retailers from an economic standpoint, with the potential to have an immediate impact on their sales figures thanks to links to the online store, with a reasonable and profitable commission going to the affiliate site for actual sales.

The make-up of online communities is particularly attractive for e-commerce sites: in addition to having a potentially huge user base, they also offer a natural segmentation of their members (by age, geographical location, centres of interest, etc.).

Affiliation with online sites could prove a very lucrative business for UCC players which have managed to create wise matches between the features and content they offer and the products sold on a given e-commerce site. Given the weight that online retailers now have in the economic equation, not to mention their growth outlook (according to eMarketer, their value is forecast to increase by 43% in the United States and virtually double in France between 2007 and 2010), this market represents a potential source of considerable income for all the players involved, but still remains underexploited by UCC platforms.

Figure 94: E-commerce market growth

(billion USD)
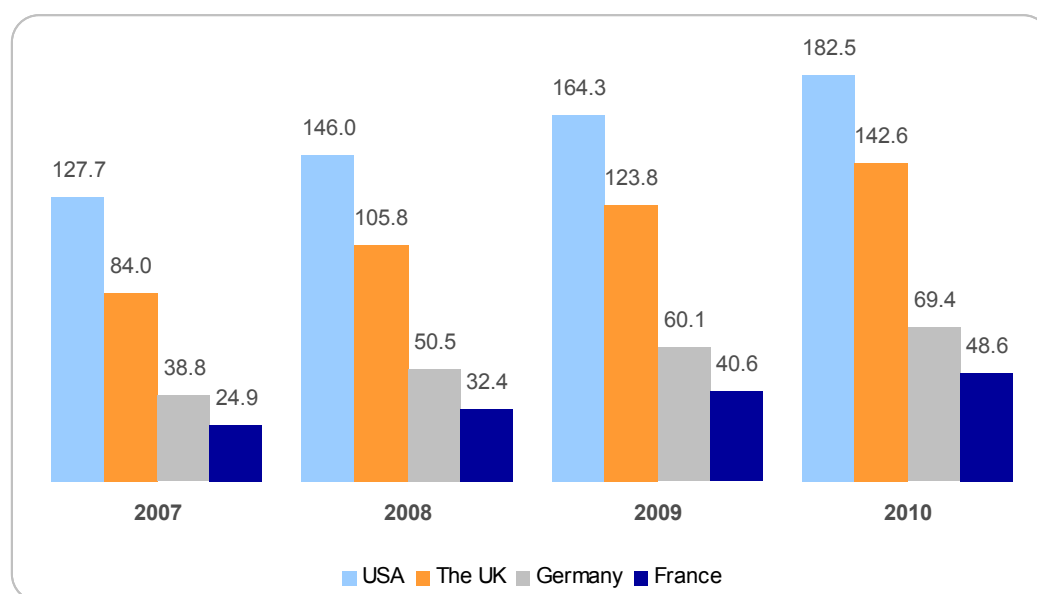
Figures for the United States exclude online travel sales

Source: IDATE, based on eMarketer

Direct sales

Although not terribly common, some services derive income from direct sales. One example is Italy's Dada.net which markets songs in MP3 format along with mobile content (games, wallpaper, videos, etc.) in the form of a weekly subscription.

A handful of participatory sites have **even developed and structured their community-centric service around e-commerce**. One case in point is the American site, Threadless, whose chief purpose is the sale of t-shirts designed by community members and submitted to others for rating. Each of the top-rated creations is printed and offered for sale on the site, with a share of revenue going to the person who designed it. Threadless generated a turnover of over 30 million USD in 2007 (Source: www.inc.com).

But the most common e-commerce activity on social networks is undoubtedly the **sale of virtual goods**. This activity, which was once confined to video games, has extended into virtual communities and social networks whose member buy digital icons of objects or symbols, to be traded and displayed in their profile.

The sale of virtual goods is at its most popular in Asia.

Outside of Asia, Habbo Hotel is a prime example of a social network centred around the sale of virtual goods. Created in Finland, this virtual community is populated by more than 97 million avatars and, in May 2007, reported 9.5 million unique visitors worldwide to its 32 local versions. Virtually all of Habbo Hotel's income derives from the sale of virtual goods, with revenue in 2006 estimated at between 60 and 77 million USD (Sources: TechCrunch and The New York Times).

One site that is emblematic of a virtual community, **Second Life offers a lesson in the potential paradox**. This online 3D universe, whose entire economy is based on the sale of virtual goods, is reporting good financial health: almost 53 million USD was exchanged in the first half of 2008 (versus 38.7 million USD in the first half of 2007) on Second Life. But the rise of these sales appears to have taken place at the expense of the community's social life, with users disappointed by the increasingly commercial bent deserting the site en masse. As of 30 June 2008, there had been fewer than 840,000 active users during the past 30 days, even though the site has a base of 14 million registered users.

If it may seem surprising that consumers are willing to pay (even if it is only a tiny amount) to buy a few pixels representing virtual objects, it needs to be understood that these **digital images do not have the value of an item but rather a service**. The appeal of these virtual objects lies in the use that is made of them within the online community, and not in their intrinsic value, which is nil. A virtual item thus makes sense within the social networking dynamic, of which it is an integral part – helping to enhance users' shared experience, particularly their interactions with others: offering a virtual gift to a friend, displaying a present received on one's personal page.

The success of certain social networks built around the sale of virtual goods inspired Facebook to open **a virtual gift shop** in February 2007, where users can buy little icons for a dollar a piece, to offer to other members of the community.

2.4. The business models of UCC according to a content, social and economic classification

As explained previously, we have developed during this study the following UCC classification depending on the type of content, the social aspect and the economic aspect of the content created by users.

Figure 95: Main characteristics of the UCC categories

Source: IDATE
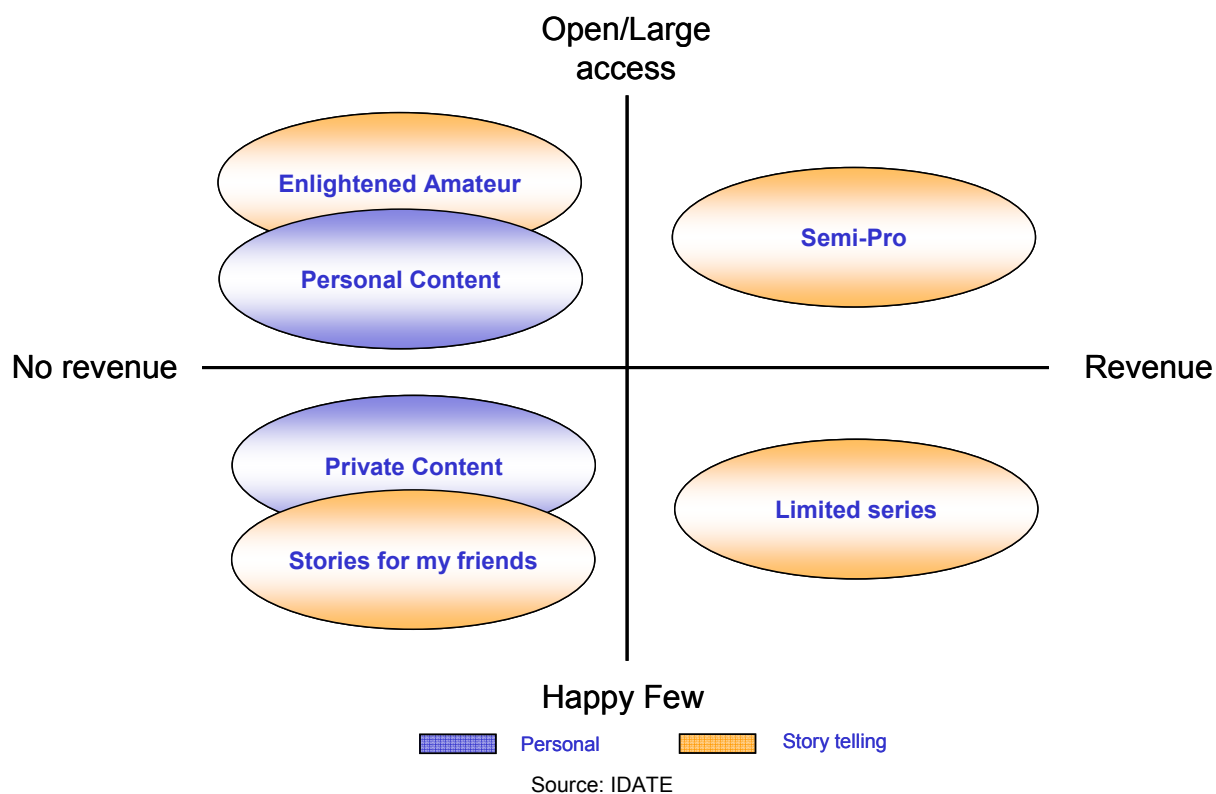
The following table aims at pointing out the main characteristics of the 50 UCC services studied during this study (Cf. case studies in Annexes) according to this classification.

Table 25: Breakdown of some UCC services according to a content/economic/social classification

		Type of content		Economic		Social	
		Personal	**Story-telling**	**Revenue**	**No revenue**	**Happy Few**	**Open/large access**
Video sharing	Daily Motion	X		X (only through the Motion Maker Program)			X
	Neogen TV	X	X		X		X
	Pandora TV	X	X		X		X
	TuClip	X	X	X (only when a video is broadcasted on Antena 3 TV)	X		X
Photo sharing	Flickr	X	X		X	X	X
	Fotosik	X	X		X		X
	Photobucket	X	X		X	X	X
Social Networks	Cyworld	X			X		X
	Dada		X	X			X
	Islandoo	X	X		X	X	X
	LunarStorm	X	X		X		X
	MySpace	X	X	X (planned)	X	X	X
	Serious Talent		X		X		X
Knowledge sharing	RocWiki		X		X		X
	Wer.weiss.was		X		X		X
	Wikilengua		X		X		X
	Wikipedia		X		X		X
Citizen Journalism	AgoraVox		X	X			X
	OhMyNews		X	X			X
	Skoeps		X	X			X
Virtual World	Habbo Hotel	X			X	X	
	Second Life		X	X		X	X
	VirtualMe		X		X		X
Video Games	Kongregate		X	X			X
	Machinima		X	X			X
	WeGame		X	X			X
Recommendation	Biblioteket		X		X		X
	Deezer	X	X		X	X	X
	Last.fm		X		X		X
	LibraryThing	X	X		X	X	X

		Type of content		Economic		Social	
		Personal	Story-telling	Revenue	No revenue	Happy Few	Open/large access
Talent Search	Backstage		X		X		X
	Blurb		X	X		X	X
	KijkMijTV/ SeeMeTV		X	X			X (accessible only to users of Vodafone's mobile Live! portal)
	Lulu		X	X			X
	Manuscrit		X	X			X
	MTV Flux		X	X			X
	Sellaband		X	X			X
	Ziddio		X	**X** (winners of contests are awarded various prizes)			X
	Zizone		X		X		X
Social Bookmarking	Mister Wong	X	X		X	X	X
Mobile services	Betavine		X		X		X
	Mobango	X	X		X	X	
	Perso TV		X		X		X (accessible only to subscribers)
	Qik	X	X		X	X	X
	Shozu	X	X		X		X
UCC on the TV Set	Fame TV		X	X			X
	TV Perso	X	X		X		X (access restricted to Free subscribers)
Audiobooks	LibriVox		X		X		X
Content Ranking	Threadless		X	X			X
e-government	FixMyStreet		X		X		X

Source: IDATE according to companies' web sites

It is noticeable that **a same UCC service can belong to several categories of this classification** since the same service could host different kind of content and, above all, since most of them essentially provide tools to their users: it is then up to them to use these tools as they want.

That is why a video sharing site for example can host personal as well as story telling content, allows its users to make their content publicly available or keep it private, and can even propose to its users to participate to a professional program (if they want to) and potentially make money thanks to their content.

Actually, it seems that **the main criterion is the primary intention of the author**. According if he/she wants to be famous, wants to make one's career in an artistic profession, or just wants to share personal content with friends or even just needs to store his/her content elsewhere than on his/her desktop, he/she will choose different UCC platforms and/or different services of the same UCC platforms.

Thus, an individual who is fond of photography will probably need to subscribe to a pro account on a photo sharing site just to store his photos on a secure place and will maybe share them (or part of them) only with his close relations. But in the same time, he can also try to publish a photo book thanks to a talent search site and hope to be famous and derive some revenues thanks to his talent.

As a general rule, when users cannot hope to make money with their content, both personal and story telling content are available on the platform, and this content can usually be made either public or private. But **when users can make money, it is only with story telling content** (whatever the nature of the content) **and hardly ever through an access limited to happy few.** That is why almost all the services belonging to the "semi-pro" and to the "Limited series" categories either are talent search services or provide a talent search service alongside their usual services. The other services are direct competitors of professional services, such as citizen journalism websites.

Figure 96: Breakdown of examples of UCC services according to a content/economic/social classification

Source: IDATE
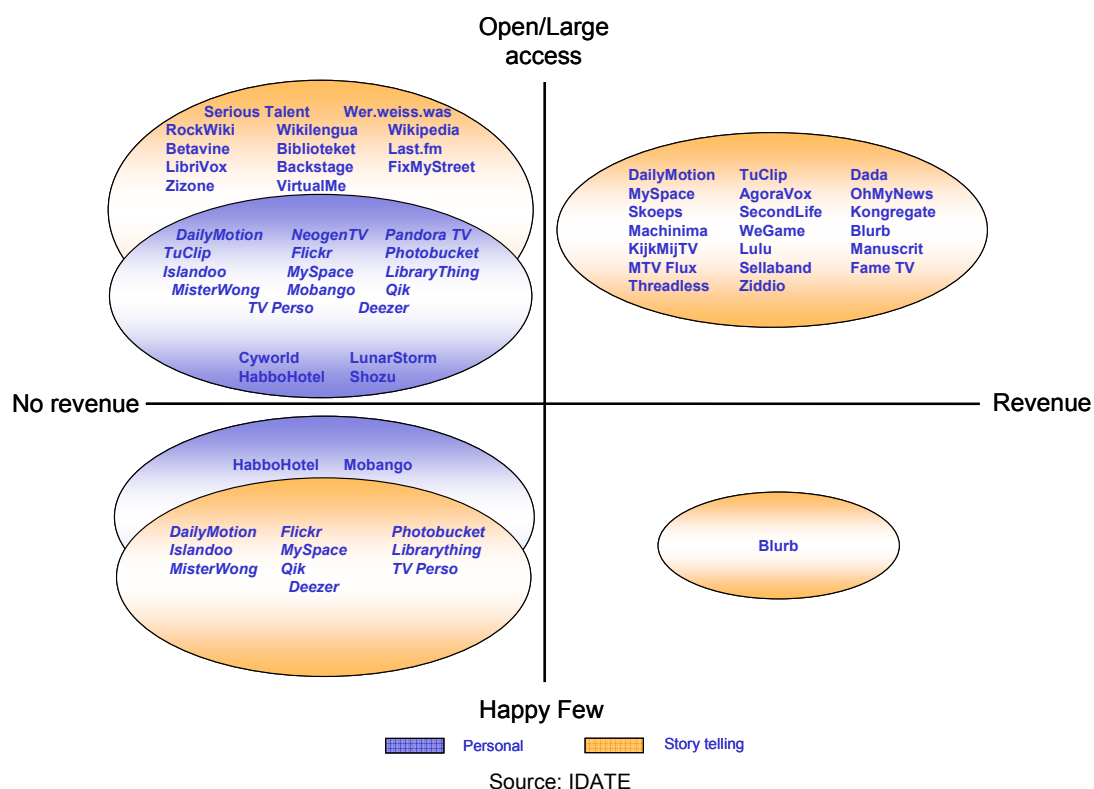
Figure 97: Breakdown of main genres of UCC services according to a content/economic/social classification

Source: IDATE
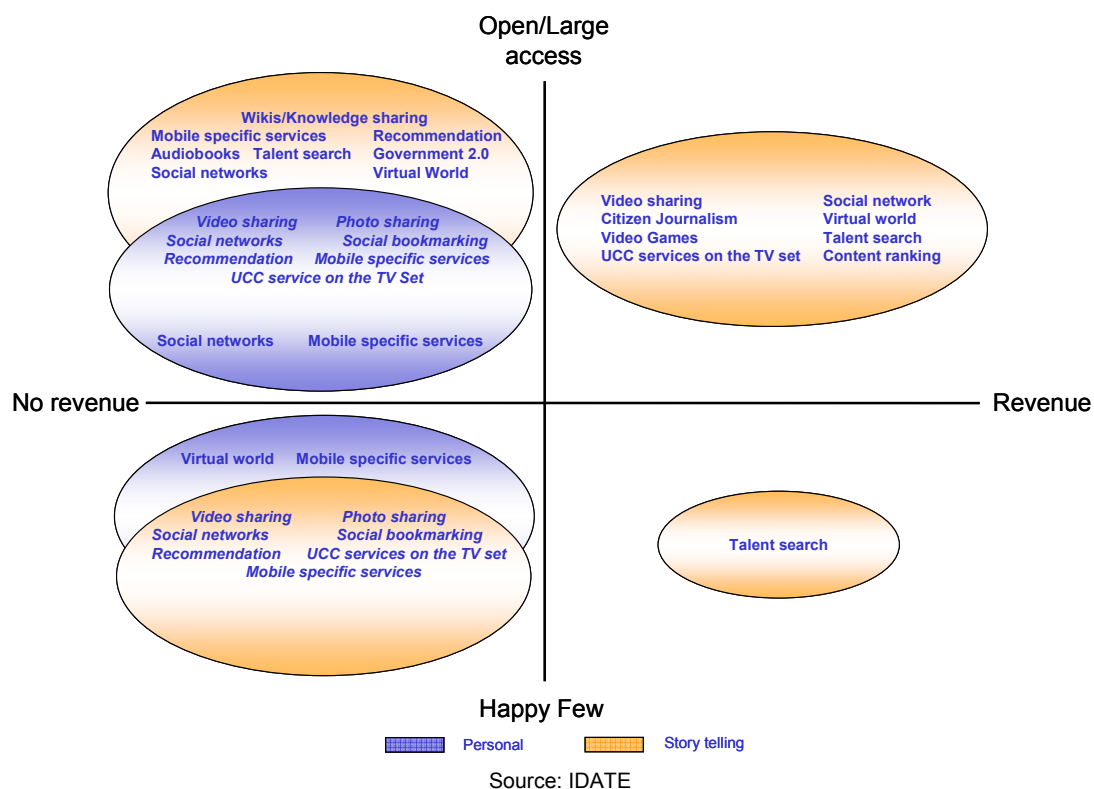
Except some wikis and some non profit organizations which do not wish to rely on advertising revenues and which work with donations and/or public funding, **almost all types of UCC services integrate advertising revenues in their business models**. So, whatever the category, advertising is part of the business models.

Donations and public funding mainly fuelled the "**enlightened amateur**" category.

The subscription models are essentially to be found in the "no revenue" categories (i.e. the 4 categories on the left-hand-side of the classification).

Whereas revenues derived from **e-commerce** are common in the two categories on the right-hand-side of the classification (i.e. the "**Semi-Pro**" and the "**Limited series**" categories), but not limited to these two categories. In particular, on sites such as Cyworld and Habbo Hotel which derive most of their total revenues from the sale of virtual items to their own users, users cannot earn money. The main difference lies in the fact that for "Semi-Pro" and "Limited series" services, goods could be bought by everyone accessing the service, whereas in the Cyworld and Habbo Hotel examples, goods are only sold to the users themselves.

Figure 98: Main sources of revenues for services of each category of the UCC classification

Source: IDATE
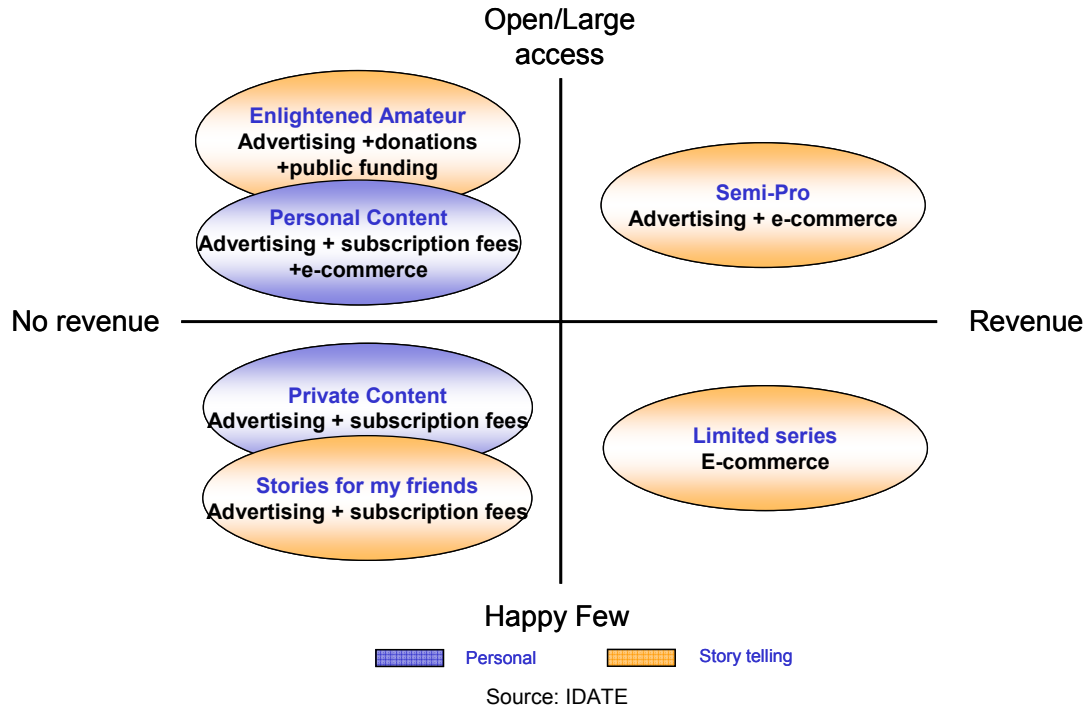
The quite massive overlap between personal and story telling services on the one hand, and the poor number of services on the "limited series" category leads us to propose a simplified classification with three main categories:

- **Content to keep (or "*I want to manage*")**: is the aggregation of "Private Content" and "Stories for my friends". In this category, users mainly use an UCC platform so as to store their own content and possibly to invite some close relations to have a look on it. In this case, UCC services are used as a commodity, a kind of external hard disk with extended functionalities and added services.

- **Content to share (or "*I want to have friends*")**: is the aggregation of "Personal Content" and "Enlightened Amateur". In this category, users develop content with a view to share it within a broad community. In this case, content is essentially a way of expressing oneself and of exchanging with other people who have the same profiles or centres of interest.

- **Content to sell (or "*I want to be famous*")**: is the aggregation of "Semi-Pro" and "Limited series". In this category, users clearly produce content so as to either make money or use it as a promotion tool of their own (supposed) talent.

Figure 99: Presentation of the simplified UCC classification
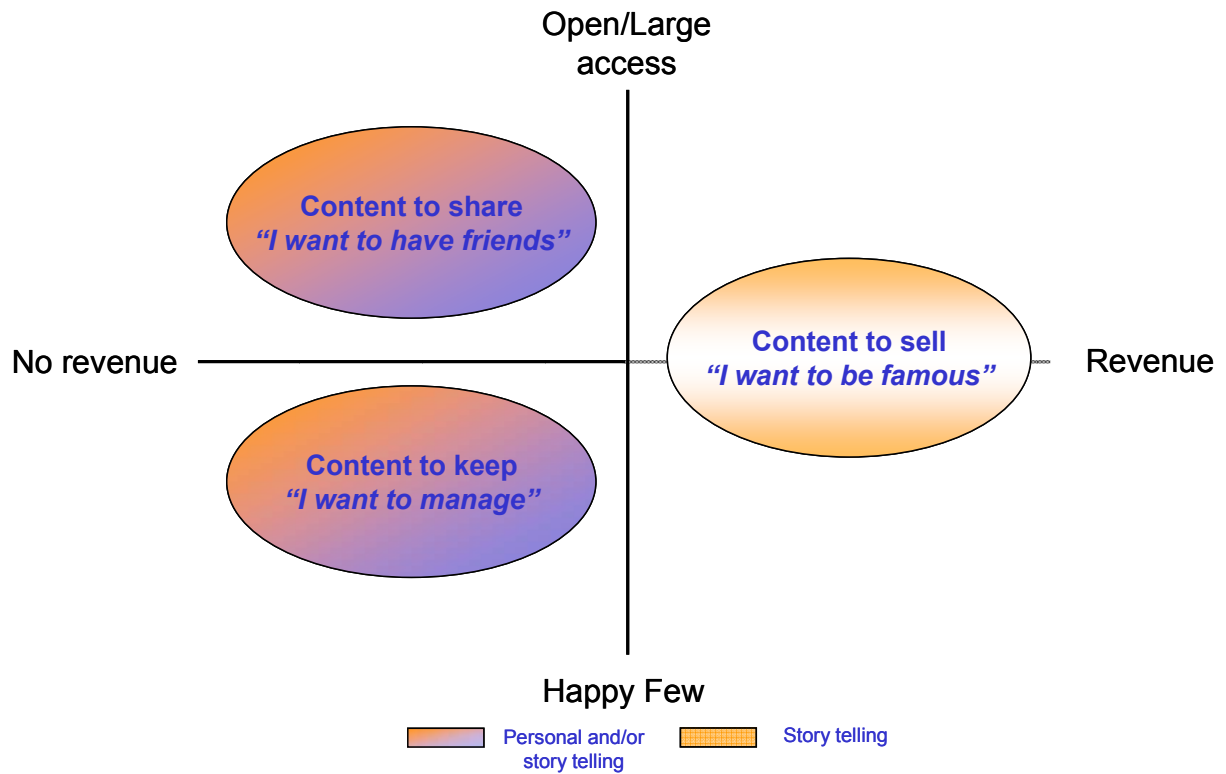
Source: IDATE

3. Description of the value chains of user-created content

The value chains described hereafter should be considered as a snapshot of an emerging and fast-evolving market. These value chains are likely to change in the next months or years. They should be structured in another way (maybe more appropriate to the development of a robust industry or allowing a better monetization of UCC), or should welcome new players.

Our purpose here is not to provide an ideal value-chain for the UCC industry but just to describe the current situation.

3.1. The main players of the UCC value chain

The value chain of user-created content involves a broad set of players throughout the creation, the distribution and the consumption phases, even if most of them are not directly concerned by the user-created content but are nevertheless essential in the process of creating, uploading, distributing and consuming this content.

The users/creators: they are at the starting point of this value chain since their creations feed all the value chain. But, since we are in a digital environment, they need to use (and therefore to acquire) some devices (such as a digital camera, a phone camera or a PC) and software during the elaboration of their content. They also require a network (either fix or mobile) so as to upload their creations on a UCC service. Even if users/creators do not buy a PC or do not subscribe to an Internet broadband access only for the purpose of uploading their personal creations, they do need to be equipped in appropriate devices and to subscribe to either a fix or mobile access so as to participate in the UCC phenomenon. If software is also necessary, most of the software used are available for free, at least in their basic versions. But some of them, in particular the pro versions, should be bought by the users/creators. Lastly, the users/creators may subscribe to a UCC service in particular for benefiting from specific services or facilities such as extra storage capacities.

The consumer electronics manufacturers: they play a major role during the creation and the consumption phases since the devices they manufacture are required so as to elaborate content and to display it at the other end of the chain. The success of UCC services could only have a positive impact on this industry since the development of the UCC industry partly rely on the availability of appropriate digital tools and devices.

The software providers: they also play a role during the creation and the consumption phases for the same reasons than the consumer electronics manufacturers. They could either be independent from UCC platforms or have close links with the UCC platforms. Actually, most software used are directly developed by the UCC platforms and users (creators and consumers) may use them or have to use them so as to upload/download content to/from their platforms.

ISP's and telcos: Like the consumer electronics manufacturers and the software providers, they are present at the two ends of the chain since users (creators and consumers) either need a fix or mobile broadband access so as to access the UCC services.

The UCC platforms: they are in the heart of the value chain since they provide the entire infrastructure to host and display content. They also collect revenue derived from their activities and manage the revenue possibly generated by the UCC.

The users/consumers: they are at the end of the chain. They can use UCC services for free, or subscribe to specific services or facilities (giving them the possibility to access the service free of ads for example), or buy digital goods (on virtual worlds for example), or pay for receiving a physical copy of the digital work (such as a print version of a book for example).

Other players, not involved in the process of creating, distributing and consuming UCC, also appear in this value chain since they largely contribute to the financing of the UCC platforms:

The advertisers: even if the total amount of ad spending on UCC services is still low, advertisers are essential in the business models of the quasi-totality of UCC platforms. Their weight should increase in the next years. But the ad spending is far more related to the audience or traffic of a site than to UCC (i.e. advertisers are interested in reaching a wide audience but show no particular interest in the fact that the audience relies on UCC).

The investors: commercial companies, including media companies, telecom operators and Internet giants, are playing an increasing role in the UCC sector. Some of them have developed their own UCC services, others have taken over existing services or just take a minor participation in a UCC service. In a phase where costs are increasing (due in particular to the exponential bandwidth costs), but where business models are not yet successful, the presence of outsider investors is crucial to face this launching period. But it seems that these investors are more interested in the user-base and its perspective of monetization rather than in the content available on these platforms.

Other websites/content publishers: they could intervene in the value chain through licensing and partnerships with UCC services. Some services market their technical platforms to other Internet players as white label products. Some others conclude some deals regarding the supply with content. In this case, the agreement is directly linked to UCC, but not in the first case.

Lastly the professional content producers: they do not contribute directly to the financing of UCC services but they could have a positive indirect impact. Actually, some UCC services are developing agreements (such as video sharing sites) with traditional content providers so as to acquire professional content in order to display it on their service and to generate additional advertising revenue.

Other players should have also been mentioned in this value chain such as the technical industry related to UCC platforms (servers for example), which can also benefit from the success of the UCC services. But we have judged preferable to focus on the heart of the value-chain rather than to have a too broad picture.

Following our analysis, **we have elaborated three value chains**: one for the "content to sell" category, one for the "content to share" category and one for the "content to keep" category.

They are basically the same except the revenue flows which differ between each model.

Each value chain has been illustrated by a chart.

3.2. The value chain for the "Semi-Pro" and "Limited series" categories

This model is the only one in which users/consumers pay for UCC and the only one in which the users/creators derive revenue from their works.

Figure 100: Presentation of the value chain for the "Semi-Pro" and "Limited series" categories ("content to sell")
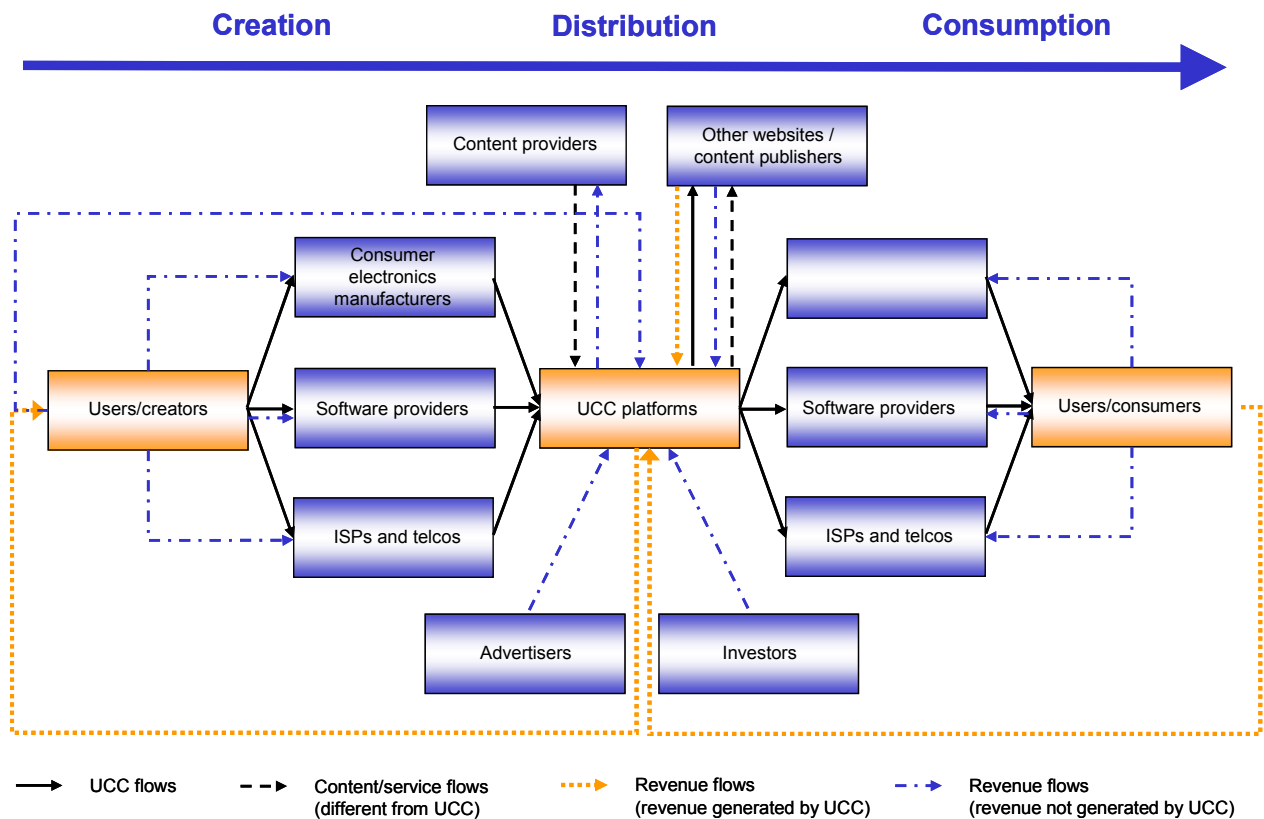
Source: IDATE

3.3. The value chain for the "Enlightened Amateur" and "Personal content" categories

In this model, UCC platforms can only hope to monetize UCC thanks to partnerships with other Internet players or content publishers. Otherwise, neither the platforms, nor the creators derive direct revenue from UCC.

Figure 101: Presentation of the value chain for the "Enlightened Amateur" and "Personal content" categories ("content to share")
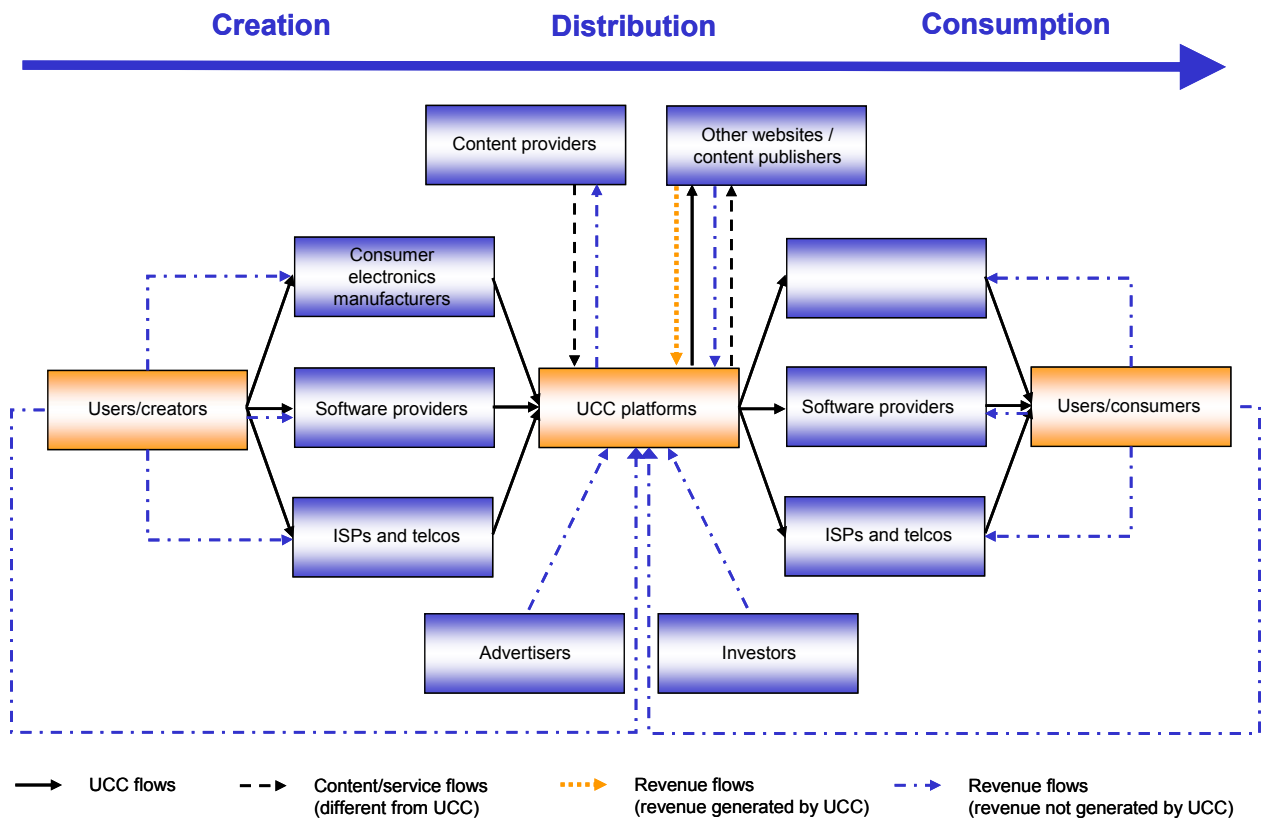
3.4. The value chain for the "Stories for my friends" and "Private content " categories

In this model, where the access to UCC is restricted to a "happy few" base, no direct monetization of UCC is possible.

Figure 102: Presentation of the value chain for the "Stories for my friends" and "Private content" categories ("content to keep")
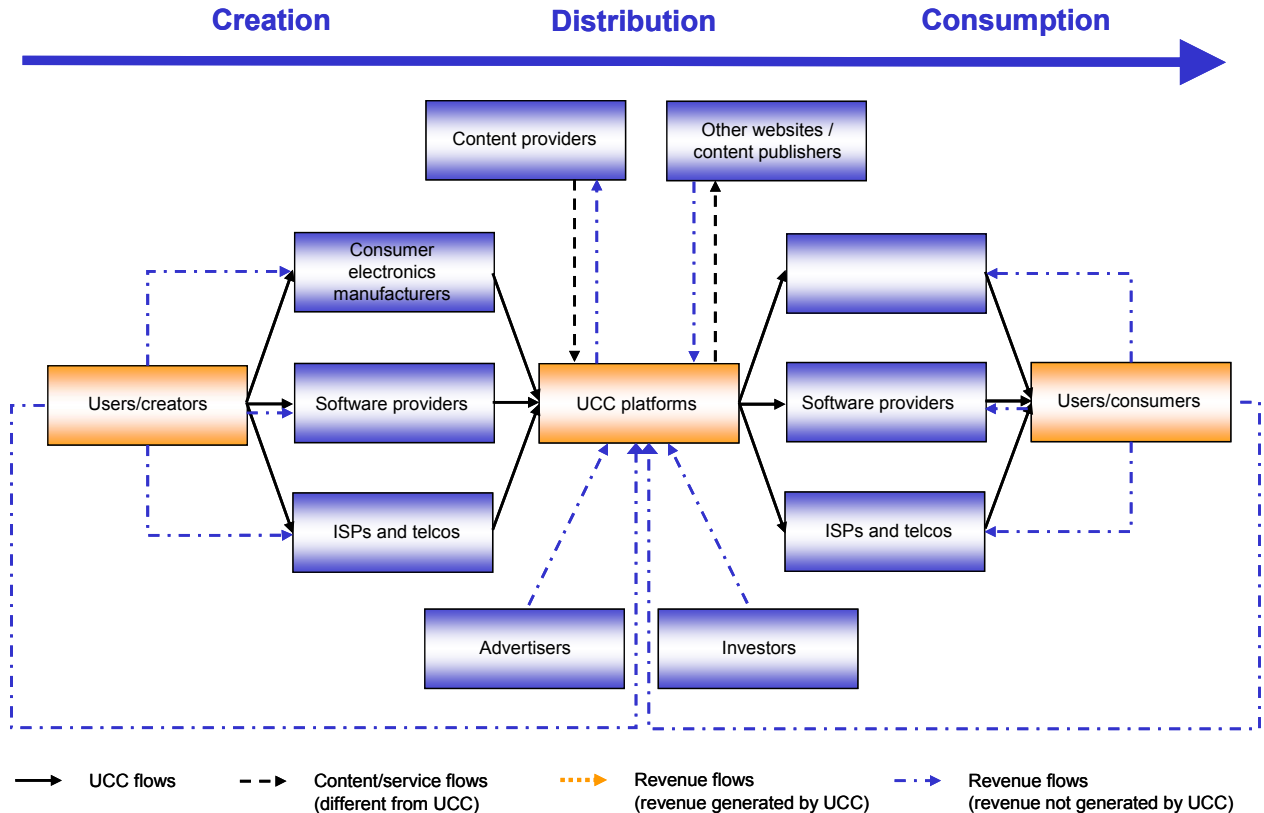
Source: IDATE

3.5. Highlights

Content digitalisation, democratisation of digital tools and of the broadband (fixed and mobile) Internet has opened the door to new methods of creating, sharing, viewing, managing and storing content. Consumers have embraced massively these new opportunities to create and share their own content thanks to the developing UCC platforms.

As mentioned before, the implications on people are already huge and will further develop. They not only concern the economic field but will also –or even mainly- have social and cultural impacts by allowing self-expression, reinforcing the links with friends and family, meeting new friends, encouraging a greater participation in the information society, developing pluralism and improving IT skills and digital literacy of the Internet users.

But the development of UCC activities will also have impacts on the other players of the UCC value chain and in particular on ISPs and telecom operators on the one hand, on software providers on the other hand and finally on consumer electronics manufacturers. All these players are key players in the value chain: content creators and users cannot develop and consume amateur content without an Internet access, a PC, a mobile, a camera and/or software.

The increasing will to express one's voice, one's thoughts will for sure favour the penetration of PC and of broadband access into European households, the migration to 3G equipment, and the EGP market.

On top of developing these fields of activities, UCC will also encourage the emergence of new revenue streams. Let's take the example of photography. In the analogue environment, this activity was limited to capture and print. The digital environment has opened new opportunities linked to the viewing, the editing, the sharing, the storage and the management of this content. One can now easily access to his/her digital memories through a variety of devices everywhere in the world, providing there are seamless solutions which make users' life simple. Moreover, it is now possible thanks to the high quality of the photos produced with the last generation of digital camera to use them to produce new creative products, such as calendars, mugs, tee-shirts, jigsaws, key rings, etc. For online photo service providers, these are new opportunities to derive revenue from these merchandise items. Photos storage should also provide new business opportunities as the total number of digital pictures produced is shooting up. Users will need guidance to manage and store their huge amount of photos in an appropriate manner. Online photo service providers could provide advice, software and storage capacities so as to allow people to easily and safely protect their memories.

This example clearly shows the huge potential impacts that the development of UCC activities could have on the whole UCC value chain.

Favouring the development of UCC activities in a safe environment will obviously have major positive impacts on the rest of the value chain.

PART II – Drivers and obstacles

1. Introduction

In order to make an assessment of the future development of UCC it is necessary to gain insight into the factors that drive or hinder UCC. This insight can help establish which factors can be stimulated or fostered to further drive the development of UCC and determine those factors that pose a threat to UCC and might be dealt with by regulators.

In this chapter the discussion of drivers and obstacles is structured using the key areas used in the interviews: technology, economy, social-cultural and legal/policy. Drivers and obstacles are dealt with in separate sections. However drivers and obstacles are often intertwined in these key areas. For example, broadband Internet will be considered a driver in regions (such as Western Europe) where networks are widely available and are accessible at low costs. However in other regions the lack of broadband networks and / or the high costs for access will be considered an important obstacle.

In the interviews the drivers and obstacles that are identified by the interviewees are often very specific and closely linked to access to and use of UCC. This means availability of broadband is mentioned as a driver (or obstacle), but economic climate is not. However, the latter can be considered an important driver or obstacle as economic climate and disposable income determine the ability of users to afford equipment such as computers and cameras and access to broadband Internet. This means that there are implied drivers or obstacles. Moreover, in the interviews factors such as innovation policy or competition policy are usually not mentioned as drivers or obstacles. Although this might be due to the fact that it is not considered to be a driver or obstacle, this is also due to the fact that it is implied in other drivers and obstacles. When discussing the availability of broadband as a driver, this automatically implies that broadband policy is (at least to some extent) a driver as it is likely that it has a beneficial impact on the availability of broadband.

The analysis in this chapter is based on desk research and interviews with stakeholders. The discussion is structured along the lines of the interviews: drivers, obstacles and implications.

Desk research

The desk research comprised a review of literature, reports and studies on the topic of UCC. Using this information the main drivers, obstacles and implications as described in this chapter have been identified.

Interviews with stakeholders

In total 52 interviews with stakeholders and experts have been conducted. The interviews were mainly held with European organisations. A limited number of interviews was held with experts and organisations outside of Europe, when this was considered important for the analysis. The interviews were held with representatives of telecommunications providers, content providers, broadcasters, publishers, blogs, rights organisations and experts. A full list of interviewed organisations is included in Introduction, section 2.3 (List of Interviews). The interview protocol that was used is also included in the Annex 2.[17]

The analysis of the interviews is based on the clustering of drivers and obstacles. These clusters were used to map responses of interviewees. This resulted in an overview of drivers and obstacles on which there was most consensus. The full list of clustered drivers and obstacles is included in Annex 3.

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2. Drivers

2.1. Technological Drivers

- Availability of broadband Internet access
- Availability of easy-to-use tools
- Availability of digital equipment
- Availability of mobile broadband Internet access

2.1.1. Broadband

"Broadband is very important in the rise of UCC. It has proven to be a standard requirement for a wealthy UCC environment" [Virtual World]

A first technological driver for the rise of UCC is the availability of broadband Internet. UCC activities (EC, 2008b), such as streaming video services, downloading software and uploading high-quality content require always-on, high-speed network access. Both the uploaded content as well as the content that is supplied and consumed via platforms put a considerable burden on the (broadband) networks and the equipment that is used (such as computers, mobile phones et cetera). Access to broadband Internet is therefore a necessary precondition to let online platforms and tools grow to their full potential. The OECD (2007b) describes broadband as having an accelerating effect to various online activities. This holds for the quality of UCC services as well as for the sophistication of the services (such as downloading and uploading content); "Gaps in broadband development correlate with differences in terms of usage, with advanced services being increasingly adopted in more developed markets" (EC, 2008b). This was also established in the interviews:

"Broadband Internet increases both the quality and complexity of online services" [Games developer]

High (downstream) bitrates are already available to the majority of Internet users in Northern and Western Europe (EC, 2008a; EC, 2008b; PWC, 2008; OECD, 2008) and coverage of broadband networks is extensive. The coverage of DSL-networks in OECD countries was 83% in 2005 (OECD, 2008a) and 89% in the EU-25 at the end of 2006 (EC, 2008b). The level of broadband adoption and use in most European countries shows a positive correlation with the uptake of UCC services (Ofcom, 2008).

"...In the Netherland there are not many technological obstacles due to the large penetration of broadband and hardware". [Social network]

However, in most Eastern [and Southern] European countries such as Spain, Italy, Portugal, Greece, Hungary, Czech Republic, and Poland broadband adoption as well as (downstream) bitrates are considerably lower (OECD, 2007b; OECD, 2008a; EC, 2007a; EC, 2008a). In these countries broadband availability can still be considered as an obstacle for UCC services as further explained in Part II, section 3.1. Moreover these countries also lag in the availability of personal computers in households (Eurobarometer, 2008).

In Europe, the mostly used access technologies to (broadband) Internet are ADSL and cable modem (OECD, 2008a; EC, 2007a; EC, 2008d). These technologies have asymmetric properties, which means that the available speed for uploads is considerably lower than it is for downloads. Before the boost in UCC services, web activities mostly involved consumption of content and upload speed was not as significant. However, as consumers play an increasingly active role in the creation and sharing of content, upload speeds have become an important requirement for the use of UCC services (Slot & Frissen, 2007; OECD, 2007a).

Next to broadband capacity, storage capacity within the network and the availability of content delivery platforms enable service providers to store and stream data more cost-efficient (OECD, 2007a).

However, UCC platforms do face increasing costs due to the growth of the total number of creations as well as the growth of the size of the creations.

The availability and use of broadband also depends on general economic conditions and disposable income (EC, 2008b). The OECD (2007b) found a strong correlation between broadband penetration and GDP per capita. The wide availability of broadband networks requires continuous investments from network and service providers. Users need the means to obtain access to these networks, which includes subscriptions and the purchase of equipment necessary for access (computer, modem…) (see also Part II, section 2.2). The relation between broadband and economic conditions is also put forward by the interviewees:

"Broadband and hardware are vital conditions for UCC to thrive. These conditions are often dependent on the economic climate of a region or country" [Social network]

Easy-to-use online tools

On top of the availability of broadband networks, the development of Service oriented Architecture (SOA) and Software as a Service (SaaS) platforms play an important role in UCC. These platforms allow service providers to set up UCC service platforms in a cost-efficient, future proof manner (Sääksjärvi et. al., 2005; Chong and Carraro, 2006). The core of these kinds of architectures is the database that is centrally hosted on an Internet server. These platforms enable service providers to aggregate information, but also to customize the relation with each client and scale the platform to an arbitrarily large number of customers without additional re-architecting. Despite the complexity of these platforms, the different interfaces that allow for syndication, customization and even embedded features of other service providers in other service platforms, make these platforms accessible even to the less (technically) experienced user, which explains their popularity. Tools such as widgets, RSS feeds and open APIs create a relatively high level of interoperability between these service platforms, which can be considered as another driving force for the widespread adoption by users.

The availability of these service platforms has created a wide variety of tools available for users to engage in UCC. This availability of easy-to-use and low cost tools is regarded as a main driver of UCC (OECD 2007a). This is particularly true for the tools that are available online and do not require any downloads or installing on local devices, as mentioned by several interviewees:

"Availability of blogging tools have made it easier to share knowledge and get in touch with other people with similar interests. Working with traditional content management systems often meant that people had to follow a specialised training…" [Blogger]

"Content creation software is now often available online (SaaS) or even within the service or platform… this way users do not have to download the software on their computers" [Social network]

The advantage of these tools is that they can be used independent of operating systems and that they are less demanding in terms of hardware specifications of computers. For any type of content tools are available that can be accessed via the Internet, be it for photo or video editing, text, or any other type. Although these online tools offer in most cases less functionality then the offline applications and tools, for example professional photo editing software, they suit the needs of the masses. Quite often tools are made available by platforms, or even included in their services. Photo sites such as Flickr.com provide third-party editing software embedded in their site. This development is also recognized by "traditional" suppliers of professional and semi-professional software such as Adobe. This software developer released a simplified online version of their editing software (including storage space for files and online galleries).

Accessibility of information

A driver related to service platforms is the availability of (semi-)automated search and filter mechanisms to easily find and disclose content to a specific user (OECD 2007a). Search costs decrease significantly as search engines or peer based recommendation mechanisms reduce time and effort users have to put in to find exactly what they are looking for. This enables the marketing of niche products such as UCC in the so-called "Long Tail" (Anderson, 2006; Brynjolffson, Hu and Smith,

2006; Limonard and Esmeijer, 2007). This ability to target specific users applies to users searching products (Amazon's "people who bought this book, also bought...") but also to business partners of user generated platforms such as advertisers.

Searcheability and findability – and tools that can be used for that purpose – are regarded as important drivers for UCC. Due to the huge amount of information available online it becomes increasingly difficult to find the right information. Gantz. et. al. (2008) estimate the current size of the digital universe at 281 exabytes (281 billion gigabytes) –UCC accounts for about half of that. Finding information is thus key to the further development of UCC (and the web). In US research by PEW a substantial percentage of people indicated they feel overwhelmed by the enormous amount of information available (PEW, 2007a). This is confirmed by the interviews:

"The amount and percentage of low quality content will increase enormously. This will result in an increasing demand for better filtering tools of all content" [Game console]

Besides the automated search such as query search, automated recommendations, personalisation and RSS there are tools of a more socio-technical nature. These tools use input from users to make content searchable and findable such as social bookmarking (i.e. Del.ico.us, Digg and StumbleUpon) and tagging. Although the latter can also be used in social bookmarking it is an important tool that can help make content manageable. For example in Flickr.com tags can be used to describe photos and tags can even be added to parts of photos. In itself social bookmarking and tagging can be regarded as UCC, as users add content and value.

Digital devices

The **availability of digital recording devices** (at relatively low costs) caused a radical change of the attitude of users worldwide in recording, storing and using content (OECD 2007a). Moreover the devices have become smaller and therefore more portable and prices for these goods are declining (EC, 2008b). This has caused a large penetration of devices (at least in developed countries). The amount of content generated by users grew fast after the adoption of digital cameras, mobile phones (Gantz et. al., 2007, Gantz et. al., 2008) and digital video recorders (DVRs) with harddisk. In combination with increasing storage space for free on the Internet this has led to an enormous amount of content that is being produced and stored. The availability of a camera at all times (camera phone) and the almost unlimited storage capacity (digital cameras, DVRs) caused people to change their behaviour, and not only record but also keep much more of the recorded content (Gantz, 2007). The overall tendency to build collections of content is further fuelled by the growth in storage capacity on all levels: not only in recording equipment and memory cards, but also in playing devices, PCs and laptops, add-ons (USB-sticks, external hard disks) and particularly on-line storage and delivery capabilities (Mateos-Garcia et al. 2007).

Mobile broadband

In addition to the widespread availability of low cost devices, the widespread **penetration and use of mobile equipment** and the functionality it offers drives the rise of UCC (OECD 2007a). Camera phones have grown in terms of functionality, offering photo and video capabilities. Moreover mobile phones are increasingly used to access the (mobile) Internet via high speed mobile networks (such as UMTS or HSDPA). This means content can easily be created, to some extent edited and uploaded and shared via one single mobile device. As mobile telephony has increased in importance, and in some countries even surpassed fixed telephony, mobile equipment is widely available and increasingly used (OECD, 2007a; OECD, 2007b; EC, 2007b; RAND, 2008). Although the photo and video capabilities of this type of equipment do not match the quality of photo and video camera's (yet), the quality is sufficient for mobile capturing and sharing everyday experiences and situations. As the quality increases, users might be more inclined to create content and find a larger audience for their creations (Interviewees indicated that UCC made by mobile devices is low in quality). Another reason why mobile Internet access is regarded as an important driver is that it can serve as an efficient alternative to fixed networks in areas where these fixed networks are unavailable or too expensive. The E-communications Household Survey found that the number of mobile only households is increasing rapidly in Southern and Eastern European countries such as Portugal, Czech Republic, Hungary, Slovakia and Latvia (Eurobarometer, 2008). This is also recognised by the interviewees:

"Mobile access enables (less accessible) rural areas to use Internet" [Blogs]

As mobile technologies evolve further in terms of availability (coverage of high-speed mobile networks such as UMTS and HSDPA), in terms of affordability (especially lower tariffs for roaming when abroad), functionality of mobile handsets and the availability of new mobile technologies (such as WLL, WiMAX, etc.), they become ever more viable options for UCC (Pascu, 2008).

2.2. Economic Drivers

- Affordable, flat-rate fixed and mobile broadband Access
- Large potential target market / audience
- Engagement of users by companies
- Use of UCC by (traditional) companies

2.2.1. Broadband pricing

Most of the technological drivers mentioned above are intertwined with economic drivers on the demand as well as supply side. From a demand perspective the **cost of access to broadband Internet** is a major driver of UCC (OECD 2007a). Flat-fee always-on broadband Internet not only enables ease of use and streaming video; the "always-on" type of subscription deployed by ISPs enables the use of services that require the user to be on-line for a prolonged period of time, such as Social Networking Sites (SNS) (Ofcom, 2008, Pew, 2006; OECD, 2007b). Access prices greatly affect the frequency of use of the Internet (OECD, 2007b). Next to available infrastructure, affordable subscriptions are therefore an additional precondition for the development and use of UCC; available infrastructure is worth nothing if the price for access is too high for public to afford. This is not limited to subscriptions, low costs are also relevant for the equipment to access the Internet and capture, edit and view content, and for the tools that can be used for making UCC as well as. In developed broadband markets prices for broadband access are generally lower then in undeveloped countries; there is an inverse (not strong) relationship between broadband penetration and broadband prices (EC, 2008b).

2.2.2. Target audience

An important economic driver is also the large potential target audience or market that is available. In 2008 an estimated 1.5 billion people had access to the Internet[18], making this a huge potential audience or market that can be accessed at relatively low costs. The distinction between audience and market is important since for most users the prime motivation to engage in UCC is not financial gain, but the need for interaction and self-expression (Ofcom, 2008). The 1.5 billion people that have access to Internet form a potential audience since not all Internet users have access to the Internet in a way that is beneficial for UCC (for example due to the use of narrowband, pay-by-the-minute, Internet access) and the creations that people have made have to stand out of the crowd (findability of content). The possibilities of this large potential audience are illustrated by success stories of people that achieved success via the web, such as Esmee Denters or the band the Artic Monkeys.

Esmee Denters

Esmee Denters is a Dutch singer that posted movies on YouTube in which she performed songs of other musicians and of her own, to show her talent to the world. This triggered many international positive comments on her singing. This has led record companies to contact her and she has signed with the record label of Justin Timberlake.

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[18] www.internetworldstats.com

From the user perspective creating content is only half the fun, an important goal is to have their content seen by the large potential audience. As will be discussed in the paragraph 2.3.1 of Part II the need for social interaction, self-expression and "to be seen" is the most important driving force for users to engage in UCC. An associated driver is the use of UCC by traditional media companies such as TV-stations, news papers and news websites of traditional companies in their programming. This provides users with access to "traditional" media outlets that was previously more difficult to achieve.

2.2.3.   User engagement

"UCC has become an interesting way for advertisers to let users engage actively with their brand, as traditional ways of advertising have lost their appeal (especially for younger audiences)" [social network]

In some sectors integrating UCC into a service can be an economic driver as it can be used to engage users (Bäck & Vainikainen, 2007). One sector that has profited (at least in terms of reach and impact) is that for marketing / advertising. In this sector companies have users have been getting involved in making commercials, for example by having contest for creating commercials for specific products or brands.

"UCC is used to involve users and to create a soft lock-in"[Games developer]

Companies have been experimenting with different models ranging from having people determine the content of a commercial (e.g. determining the ending) to providing them with the material to create a commercial to having them make commercials with their own material. Irrespective of the number of contributions this generates and the quality of these contributions, using UCC is regarded as a positive way to get users involved.

"Allowing users to personalise or contribute to the service or product makes them feel like they are part of the product ... Giving users the possibility to contribute is even more important then huge amounts of actual contributions" [Game console]

Thanks to the large potential audience and large number of potential creators the amount of available content has increased enormously. Another driving force on the supply side fuelled by technology is the amount of collections of content that are created by users. The amount of digital content in a format that can be shared exploded with the emergence of recording and storing devices. Together with socio-cultural factors such as the growing need for self-expression, new patterns in social relationships and the socio-technical landscape as a whole (Perez, 2002; Slot and Frissen, 2007), one could argue that this created a demand for on-line sharing and communication.

From the supply side perspective, technological developments drastically lowered the obstacles to entry. SOAs set the conditions for the creation of viable "long tail" web 2.0 business models. These are business models in which the larger part of the revenues is generated from the total collection of niche markets, instead of a limited number of mass market products. First of all, advanced on-line service platforms meet the requirements to disclose this long tail of niche markets: costs to store, disclose and distribute goods decrease, which increases the economic viability to sell relatively unpopular products (Brynjolfsson, Hu & Smith, 2006; Elberse & Oberholtzer, 2006). Secondly, social networking and recommendation mechanisms decrease marketing costs for the service provider, as users guide each other in finding the appropriate service or product. Thirdly, the costs for service providers to gain control over copyrighted UCC such as photo's and videos are close to zero.

These web 2.0 business models where mainly set up out of the realm of established media and distribution companies (Limonard and Esmeijer, 2007). The developments in technology mentioned before caused a shift towards the "consumerization of IT". The introduction of SOAs lowered the threshold to start up web 2.0 services, which led to a rapid increase in web 2.0 start-ups. Following the strategy of "users first and the rest will follow", many websites started as grassroots initiatives. Established media companies did not have a significant role in this wave of start-ups. Established reputations, bonds with right holders and existing customer relationships caused media companies to keep aloof. As several grass-roots initiatives matured in terms of audience size and type of business model, there seems to be some kind of closure between the two. Established players as well as advertisers see that web 2.0 environments can be used to their own benefit in several ways

(Economist, 2008; IAB, 2008). Creating more impact, talent spotting and creating customer loyalty are reasons for these organisations to deploy initiatives in this area. In an age of abundance (Anderson, 2006), involving customers in creating a rich user experience is often mentioned as a factor in gaining a competitive edge (IAB, 2008).

A driver that contributed to this process of forging links between emerging and established players are new business networking mechanisms that came along with the advanced service platforms. YouTube for example manages its business to business relationships by means of on-line partner programs and automated advertising systems. Remarkably, flagging and notice and take down procedures intended to detect copyright infringement are also used to identify stakeholders and turn a complaint into a business opportunity. These automated systems and networking mechanisms reduce search and transaction costs between organisations, and can therefore be considered a driving force in making business models sustainable.

2.3. Social-Cultural Driver

- Self-expression and social interaction
- Skills and media literacy
- Sharing information, skills and knowledge

2.3.1. Self-expression and social interaction

The need for self expression and social interaction (OECD 2007a) are important drivers of UCC, but they are not specific to UCC. These needs are as old as humanity and have found a new platform in the Internet, social networks and UCC. Access to Internet via broadband, availability of easy-to-use tools and the widespread availability of equipment that can be used to create content have improved the access of people to a very large audience. This might also be an explanation for the growth in UCC in spite of a number of obstacles that are identified.

"By facilitating tools that support the same social dynamics that exist in real-life (e.g. status symbols) a true social community has a chance to grow" [Social network]

"Until now, money hasn't been an essential driver in the rise of UCC. Attention, esteem and peer recognition are far more important" [Virtual world]

It is important to establish that many of the mechanisms that are valid in the offline domain also seem to be valid in the online domain. The web or UCC does not seem to change it that much. People do not become more social or more creative just because of the availability of tools and platforms for creating UCC. It does provide those that are more social or more creative with better platforms and enables people to manage close friendships as well as "loose relationships or friendships". Thus for most users financial incentives are not the most important driver for getting involved in UCC. Behold the relative limited amount of high-quality content, their financing contributions of the average UCC creator does not have to affect the business model of platforms.

"Experiments… indicated that financial rewards are not the most important and fruitful incentive for UCC production" [Toys manufacturer]

However this does seem to change when creators are able to produce high-quality content (in terms of technical quality as well as creative quality) that has sufficient value-added to actually generate revenue. Then creators become (semi-)professionals and the financial incentive becomes more important. This also often results in a move from the general platforms to more specialized platforms.

"… this [the financial reward not being the most important driver] changes when one is dealing with semi-professionals who are on the brink of making a business out of their hobby or passion" [Toy manufacturer]

2.3.2.   Skills and media literacy

The rise of web 2.0 services as the beginning of what Carlota Perez labelled the deployment period of technological innovation. In her analysis in "*Technological Revolutions and Financial Capital. The Dynamics of Bubbles and Golden Ages*" (2002) she argues that it takes several decades before the full fruits of a great technological revolution can be reaped. According to Perez each technological upsurge of the last centuries shows a similar pattern of subsequent stages of growth. Translating this pattern to the emergence of the information society, we are now on the threshold of the second stage of this particular technological revolution. According to Characteristic for this stage is not only the high degree of deployment of technology, but also "societal reengineering" and "creative institutional destruction". Following Slot and Frissen (2007) the rise of web 2.0 and UCC in general can be considered as part of this second phase.

In entering this new era, the rise of a generation "**digital native**" of teenagers and young adults is often quoted as a driver behind the uptake of services that require consumers to take an active role (Pew, 2006a; Pew, 2006b). This generation, referred to as Millennials, Net natives, the Einstein Generation or generation X or Y grew up with the Internet. This group is said to use ICT in a more developed way, with a different attitude and with a more advanced level of skills (search skills, social networking skills, and new ways of learning) that transcend the more functional use of the Internet by earlier generations.

The uptake of these kinds of services however cannot only be attributed to this young generation. Research shows that people from a wide range of socio-economic groups have embraced broadband Internet and new services such as web 2.0 services (Pescu, 2008; Pew, 2007; Forrester, 2007; Tancer, 2007; OECD, 2007b). The level of activity in publishing, social networking or other kinds of web 2.0 activities however differs and seems to be more dependent on education and cultural background (OECD, 2007b) than on differences in age, income or gender (Pescu, 2008; Ofcom, 2008). For example, Member States such as Spain and Italy, social networking activities are embraced by a large part of the on-line population, whereas in the Northern part of Europe social networking seems to be inextricably linked to publishing content.

Especially in the field of entertainment, the motivation to become active is positioned high in the "Maslow pyramid". *Self expression, managing social relationships and building social status* (attention, esteem, and peer recognition) are among the key motivations mentioned throughout different studies (Pew, 2006a; PEW 2006b; Boyd, 2007; SINTEF, 2007). These kinds of activities are not limited to the Internet. Moreover, the web 2.0 activities of especially teenagers seem to be a continuation of "off-line" social behaviour with new means (Boyd, 2008; Withers, 2006). For other age groups, communities with a geographical scope or organized around a specific topic or brand seem to more attractive. The motivation to become active in these kinds of environments is more goals oriented. Research on the age of Wikipedia authors for example reveals that these are predominately males in their 30s and 40s (Pew, 2007b) and UCC platforms related to serious media such as newspapers report that their community members are mainly 35+ of age (SINTEF, 2007; Wegener, 2007).

2.3.3.   Sharing information and skills

Besides using UCC for self-expression and social interaction, users engage in UCC for the purpose of sharing. Although a lot of sharing falls in the entertainment domain, for example funny photos and videos, there are also more serious applications such as sharing skills and knowledge, medical information and news (citizen journalism). The Eurostat Community Survey on ICT Usage in Households and by Individuals found that there is a trend towards obtaining and improving computer and Internet skills from informal sources (for example through colleagues and relatives) and self-study (EC, 2008b).

In sum, the introduction of UCC platforms and web 2.0 technologies in general seems to have hit the right nerve in society. The advanced social networking mechanisms and opportunities to express oneself seem to unleash a potential in society that is part of the more fundamental trend of networked individualism (Boase et. al., 2003; Wellman, 2006). It enables individuals to network in different ways: in terms of existing relations, UCC platforms enable close friends and family to enrich their current relation as well as keep in touch with friends who have moved away and old school mates. At the

same time, UCC platforms hold the promise for to be a "ticket to fame". The platforms seemingly offer everybody a chance to grow into famous artists, or at least get "15 minutes of fame".

2.4. Legal/Policy Drivers

- In interviews, policy and legal settings were generally not mentioned as important drivers for UCC.
- A number of policies - such as the broadband policy mix - have contributed to a business environment that facilitates UCC and other Internet applications.

2.4.1. Policy and legal settings are not perceived an important driver for UCC

Desk research as well as interviews indicate that policy and legal settings - European and national – are not an important driving force behind the rise of UCC. To some extent, this may reflect that there are few "UCC policies." Rather, UCC is influenced (indirectly) by a range of policy fields and policy instruments. This includes policy fields as diverse as R&D policy, competition policy, copyright, content and media policy (OECD, 2007a; EC, 2008b). Furthermore, nearly all stakeholders and experts were well positioned to reflect on the obstacles that are hindering an even more rapid progress in UCC. For instance, a firm knows its obstacles. Interviewees had more difficulties in presenting examples of how past and present policies have been a driver for UCC.

In general, policy makers and regulators are considered to be followers. Support for initiatives directly linked to UCC such as Creative Commons are an example of government that follow rather than dive. Creative commons has had limited success though, which may have been influenced by the timing and direction of policy support.

Several interviewees argue that policy makers may have contributed positively by refraining from a timely and strict enforcement of European directives and rules on copyright, privacy, data use and consumer protection. The absence of a clear stand of EU policy makers on these issues created the room for start-ups to experiment and grow quickly.

Policy recommendations that were mentioned during the interviews (and that are identified in the desk research) are mostly related to topics where current policy and legal setting are perceived an obstacle. This will be explained in Part II, section 3.4. It concerns a number of topics – such as copyright and regulation of audio-visual media services – and governance issues such as harmonisation between Europe's member states and the need for clear rules and enforcement procedures.

2.4.2. Policy has (indirectly) facilitated UCC

A number of policies have contributed to a business environment that facilitates UCC and other Internet applications. The broadband policy mix was mentioned most often. Large firms but also entrants and independent experts acknowledged that governments played a positive role in promoting competition in broadband markets (e.g. local loop unbundling) and stimulating broadband in rural areas. Exactly the new and unsure applications such as UCC have been part of the rationale for government support for broadband infrastructures. Policies related to e-skills and R&D were only mentioned twice. For example, UCC platforms can use a range of technologies, infrastructures, products and components that have benefited from R&D subsidies in European Framework Programmes and in national programmes. Potentially relevant policy areas such as media policy, standardisation and interoperability and the (re-)use of public sector information are mentioned by the OECD (2007) but they did not emerge in the interviews. Other policy areas were mentioned in the context of obstacles for UCC.

3. Obstacles

3.1. Technological obstacles

- Lack of interoperability and standardisation
- Lack of availability of broadband Internet
- Lack of availability of mobile broadband Internet
- Low upload capacity of broadband Internet
- Lack of availability of equipment that can be used for producing UCC

3.1.1. Interoperability and standardisation

A first category of technological obstacles is related to cost management in Long Tail business environments such as UCC platforms. Service providers as well as suppliers of service platforms express an immediate need for a more cost efficient manner to scale up platform functionality, storage capacity and manage content delivery. When the costs for storing, disclosing and distributing content decrease, it becomes economically viable to generate revenues with unpopular content such as the majority of UCC (Brynjolfsson, Hu & Smith, 2006). Currently some UCC platforms do not generate substantial revenues while bandwidth costs increase with the increase in UCC (OECD, 2007a) or as an interviewee put it:

"The business model and revenues for UCC are unclear, while the costs for distribution need to be paid" [Broadcaster]

It seems that besides the global players, smaller companies are experiencing more difficulties in setting up advanced platforms and content delivery platforms. For these smaller companies investing in a platform that will need sufficient mass to generate any revenues without being certain about the revenues is difficult; its is more difficult to gain access to the financial funds needed for these investments. In many countries start-up funding when future revenues are unclear, is difficult.

"Developing a new service is technically difficult because [the platform] must take into account many different browsers and operating systems" [Location based service platform]

In the longer term, the lack of interoperability in middleware and applications hinders not only specific service providers, but also prevents the emergence of a level playing field that enables right holders, service providers as well as government to deal with economic, socio-cultural and regulatory obstacles. In terms of copyright, there is a lack of easy-to-use, effective licensing systems. Proprietary middleware first of all prevents an informed discussion between right holders and UCC platforms, as the technology implemented is proprietary in nature. This implies that organizations dealing with different platforms are not able to compare or aggregate data, not only because the data is technically incompatible but also because measurement criteria differ (tubemogul, 2008). This creates a lack of transparency and accountability of UCC platforms, and thus insecurity in cooperation with UCC platforms. Although less technologically laden, identification of offenders when it comes to stealing data, phishing, abuse of minors and child pornography is difficult, to a certain extent due to the lack of interoperability and the resulting lack of transparency and accountability.

Systems allowing for more interoperability are now being created for SNSs by Google with OpenSocial (open API platform deployed on several SNSs) and Facebook (Facebook Platform for open APIs and Beacon for advertisement). These open environments give third parties access to user data, the sociograph of users and their activities on social network sites. They are mainly targeted at cooperation with developers and a (closed set of) affiliate business partners. Other types of UCC platforms are not yet active in this area.

3.1.2. Broadband Internet

Availability and use of broadband Internet access and particularly mobile broadband Internet access is considered as the main driver of UCC. This implies that the lack of access to and use of (mobile) **broadband Internet** access is a key obstacle for the further development of UCC. Although access to and use of broadband is also influenced by the costs (see Part II, section 3.2) the first step is the availability of broadband. In most western-European countries broadband Internet coverage is between 90% and 100% (OECD, 2008a; EC, 2008b) in terms of fixed networks and high in terms of mobile broadband Internet via UMTS or HSDPA networks. However, in other countries such as in Eastern Europe the availability of broadband is limited to large urban areas (and costs are often high). This excludes large populations from access to UCC and UCC-platforms.

"[obstacles are] relative low penetration of Internet and personal computer ownership in Romania" [Social networking site]

However, the upload capacity in many countries is still limited which is an obstacle for uploading content and therefore UCC. Internet started as a medium that was used to consume information and download capacity was the most important specification in broadband offerings. With the increased use of the Internet for creating, uploading and sharing of UCC upload capacity has become more important.

"Upload capacity and Internet connection are still barriers. Right now its very difficult to upload high quality content… the more easier it is to upload UCC, the more people will use it" [Telecommunications operators]

With increasing quality of equipment to produce content such as photos and videos the creations that are uploaded also increase in size. Video equipment that produces HD video is becoming the standard and even camera phones can produce high quality photos (and thus large files). Most broadband technology that are used, ADSL and Cable modems, come in service packages that are asymmetric. This means that the download speed is higher then the upload speed. The demand for better content therefore demands equipment that can produce this high quality and the infrastructure that is capable of dealing with this content (although this does not necessarily enhance the creative quality of the work).

In the absence of widely available (fixed) broadband networks or when access to these networks cannot be afforded, it is important (not just for the development of UCC) that other potential modes of access are promoted. This could be achieved by access in public places such as schools and libraries.

"Schools and libraries often do not allow their students or users to access UCC platforms… this can become problematic as the public institutions are often cheap alternatives" [Social network]

Access is important as it enables people to develop skills that are necessary for participating on the web and for social developments.

3.1.3. Mobile broadband

Mobile broadband networks are considered to be an even greater (future) driver of UCC (Pascu 2008) and thus the l**ack of mobile broadband** is an important obstacle. Currently UCC is mostly uploaded from a fixed network. Although this works for content that is created and edited at home, true value can be achieved by UCC that is created while being away from home (e.g. on a holiday destination, but also when reporting on incidents). As the equipment to produce UCC is getting smaller, lighter end therefore more portable, UCC also becomes more mobile. Video and photo equipment that can produce high quality video and images has developed into equipment that is easily stored away in the pocket of a coat. Moreover the one portable device people always have available, the mobile phone, has taken giant steps in improving the camera functionality, approaching capabilities of compact cameras. This mobility also calls for mobility of access to the Internet where the creations can be shared. Although mobile phone networks (GSM or comparable) are widely available in Europe, networks capable of transmitting data at high speed are less common. Internet access is possible by using 2G networks (GPRS), but for transmitting higher quality and thereby larger files, faster networks (e.g. UMTS, HSDPA) are necessary. In most western European countries these networks already

have substantial coverage; however, in other countries this coverage is still limited. An associated issue with access to high speed mobile networks are the high costs for using these networks nationally, but particularly internationally (see Part II, section 3.2).

While **user empowerment** is perceived to be one of the major instruments to eliminate the obstacles associated with web 2.0, tools for users to control and manage their identity and personal content are only part of a limited set of UCC platforms. Especially UCC platforms such as photo repositories and to a certain extent SNS have implemented tools for users to empower themselves such as privacy enhancing technologies and flexible licensing systems. These tools however lack the technological refinement of the tools offered to business affiliates on the same platforms. On other platforms, user empowerment tools are lacking and if present are "lowlighted". As a consequence, users have trouble removing content such as their personal profile and experience difficulties in migrating to other platforms. Social networking Sites are known to use these kinds of strategies to lock-in users.

3.1.4. Tools and equipment

Next to these tools to manage copyrights and privacy, several interviewees also see the limited offer of **easy-to-use editing and production tools** as an obstacle. Software to edit content and create valuable productions is still targeted at professionals and early adopters. The usability of this software is complex, and do not offer building blocks such as formats or ready made content which for example virtual worlds such as Habbo Hotel do offer. Moreover equipment that is often used for creating content while mobile, mobile phones still produce a supply of content that is of low quality. Due to limitations in upload capacity, the costs of mobile broadband and the specifications of mobile equipment (e.g. video shot by mobile phone camera) a frequently mentioned obstacle is the low technical quality of the content that is created using this mobile equipment.

UCC platforms, media companies as well as network operators and their suppliers see the limitations of **cross platform exploitation** as an obstacle that will grow in importance for the years to come. Up until now, UCC platforms are disclosed on the Internet and mainly accessed with a PC or laptop. Although some initiatives are aiming for cross platform exploitation of UCC, the convergence between platforms is still limited. Most UCC service providers, network operators as well as media companies are eager to disclose UCC services on mobile and IPTV platforms. Apart from insecurity in terms of user demand and design issues such as usability, the proprietary technology hinders serious advancements in this direction. Incompatible content formats, content management systems, service delivery platforms as well as the limitations of in-home devices such as STBS are named as obstacles. User expectations on for example IPTV platforms also create technological obstacles; the low resolution of video that users are accustomed to on the Internet, will not be sufficient to offer a satisfactory TV experience.

3.2. Economic obstacles

- High costs of fixed and mobile broadband Internet
- No viable revenue models
- Lack of original and high-quality content
- UCC platforms need critical mass for making them attractive to users and thus advertisers
- Difficult to monitor the large amounts of content (copyright infringements, moderation, etc.)
- Involving users in company processes gives less control over content, brand, etc.

3.2.1. Cost of fixed and mobile broadband Internet

The prime economic obstacle for UCC is the **high costs of access to fixed and mobile broadband** networks. In western European countries access to fixed broadband is available at relatively low costs. However, in many other countries (e.g. Eastern Europe) the costs for access are still very high. Moreover flat-rate broadband subscriptions are not available in parts of Europe, making Internet access costly.

"In Russian regions (outside the larger cities) the price for Internet connections is still rather high, while the quality of connections is still poor… in rural areas Internet subscriptions are expensive, and a digital divide exists for example between schools" [Blogs]

In combination with lower levels of economic development this provides for a major obstacle for access and use and therefore the development of UCC. Access to mobile broadband comes at high prices even in many western European countries. Although the costs for data have been dropping and flat-fee subscriptions are being introduced, the costs are still considered to be high. This is even more the case for the costs of international data, where roaming costs are very high. Not being able to use mobile broadband networks abroad (at least not at low costs) is considered to be an important obstacle for UCC.

3.2.2.　Revenue models

Although the use of UCC platforms shows spectacular user numbers, the revenues associated with these kinds of services are considered to be poor and **revenue models are still unclear**. Global, but especially national and regional players are struggling to make up for the costs, which are predominantly made in managing traffic numbers, streaming video, but also in moderating the platform for undesirable practices. Following the example of YouTube (Google, 2008), micro-advertising was considered to be a viable way to generate revenues in general. This proved to be a misconception. Introducing advertisements or exploiting user metrics for advertising goals has proved to be a major dissatisfier for users, who share very personal and intimate content on UCC platforms and are increasingly concerned about safeguarding their privacy. Other business models implemented range from filtering out and reselling quality content or artists to premium memberships. Overall, UCC mainly generates indirect revenue such as creating brand awareness, customer loyalty and cross subsidizing effects. Especially for platforms that lack the scale and scope of global players, these revenues are not sufficient to survive.

"it will be difficult to rely solely on UCC as a revenue source" [Game console]

The volatile nature of the communities making use of UCC platforms further adds to the confusion in identifying viable business models. Traffic on UCC platforms varies greatly. A service provider hosting a social networking site that was linked to a specific TV show reported peaks in traffic up until 100 times above average. Especially for content rich platforms such as on-line video libraries, gaming and virtual worlds, scalability and load balancing is considered to be an economic value. At the same time, service providers have difficult time keeping the community active outside peak moments. After a first active period, community members seem to have the tendency to grow inactive. Although service providers implemented numerous mechanisms to provide incentives to their community, a substantial share of UCC platforms indicate that keeping users interested is difficult. This also involves having content that is sufficient quality to interest people (PEW, 2007e).

"Either people are skilled to create professional content and are paid as professional creators, or they are amateurs and they produce poor quality content in small quantities, which has low economic value"

"Making TV needs expertise; currently for making 1 minute of TV 1 hour of production is needed… the quality of mobile video and audio is too low, so that using UCC is more complex… making use of UCC [in media productions for TV] takes a lot more effort (often even more compared to professional content)" [Media company]

An obstacle for the commercialisation of UCC is that UCC is often considered to be of low quality and that high quality content is necessary to generate revenue or to use it in traditional media. For example to be suitable for broadcasting content needs to meet professional, artistic, technical and legal obligations. This means that only small percentages of UCC are of sufficient quality to be used in mainstream media (such as TV).

"The number of real UCC content is far too low to build a TV channel on. Quality is poor" [Media company / Video platform]

Platforms provide large target audiences to creators and serve as stepping stones. Once amateurs grow into semi-professionals or professionals by creating high quality content they will monetize this elsewhere. For example amateur photographers will use platforms such as Flickr to share their photos,

but once they produce "good" photo's that can be sold they will move towards specialised platforms (such as stock photo companies) that will generate revenue.

"For a UCC website, the problem is people do not create only for their own pleasure. Their objective is to become famous. The day when they become famous, they are no more on UCC websites" [Media company / Video platform]

"… at the end of a natural selection process, only a limited number of authors will remain – the most talented once – and they will claim remuneration" [Citizen Journalism]

This implies that there might be no market for amateur UCC as such, and that revenue will be generated by means of advertising by platforms with a large user and viewer base. The uncertainty regarding revenues also makes it **difficult to obtain financial resources** for financing a start-up. This is mentioned as an obstacle by some of the interviewees.

"Too many UCC initiatives fail because too little attention is paid to the audience. People often lack the resources to make a valid business case and invest in their audience" [Expert]

Although it seems that most companies are still struggling with UCC and viable business models (as indicated in many of the interviews), it is important the establish that focussing on financial gains and revenue models might divert from other value UCC can have. There are already numerous examples of application of UCC, for example in the medical or educational domain, which can have substantial impact, other that generating profits. However, there is still little research in this field.

3.2.3.   Monitoring content

The lack of engagement by users also extends to the number and quality of the contributions of users. Especially on platforms where users are invited to create content for a wider audience, the number of community members actually contributing is low. On Wikipedia for example, Wilson (2008) reports that 1% of the users is responsible for 50% of the content. On YouTube, less then 1% of visitors is uploading content (Tancer, 2007). Raising participation levels beyond consuming or mere commenting is one of the main challenges for all UCC service providers. Next to the number of creations, the quality and therefore business value of UCC is also said to be low.

"The legal issues surrounding UCC are a minefield… Moderators have to monitor all community activity very closely. They watch every video and read all posts to filter out obscene or inappropriate content" [Online communities]

On top of storage and network issues identified in previous paragraphs, moderation for copyright infringement, abusive behaviour and on other malicious practices is a low tech and therefore costly activity. The challenge for service providers is to partly automate these processes to reduce the effort required. Service providers regard moderation of content as a difficult and costly process and combined with potential threats of legal action this makes companies hesitant to use UCC.

"Although a lot of organisations assume otherwise, UCC is not free; a lot of costs are involved to moderate UCC… if UCC is used for television, it needs to be validated" [Media Company]

Apart from the effort that goes into managing copyright infringement and warding off illegal practices, the overall quality of the content uploaded does not hold the potential to be valuable to a wider audience. This prohibits service providers to set up business models based on talent scouting and reselling of content. Again, only a few large scale platforms are able to attract such contributions.

Critical mass

Critical mass is considered an obstacle as it is difficult to reach this critical mass due to fragmentation of markets and targets audiences and the investments necessary to support this mass. Only a small percentage of UCC can be considered as the high-quality and original content that is necessary to attract users and keep them interested.

"The larger the UCC initiative, the better communities can be monetised and income can be generated" [Broadcaster]

"It is not because everybody could send its own content that it has increased the number of interesting content" [Broadcaster, video platform]

This implies that the total number of users needs to be high. This creates an associated obstacle due to the costs for traffic and storage of large amounts of content.

"The more traffic users produce, the more investment a telecom provider has to do in the network" [Telecommunications operator]

On a larger scale this raises issues concerning the capabilities of existing networks and equipment to deal with the increasing demands posed by high quality content.

"… in the United Kingdom, the huge success of BBC iPlayer (catch-up TV service) is a problem for Internet Service providers whose infrastructures are not robust enough to support a mass consumption of high quality video" [Advertising company]

3.2.4. Image and brand

A related obstacle to media companies, advertisers and other potential clients of UCC platforms experience is the **loss of control over their brand or reputation**. The possibility that community members will recontextualize, ridicule or even abuse their carefully nurtured brand or reputation is one of the main motives to not seek cooperation with UCC platforms (IAB 2008).

Companies can be hesitant to use UCC as they are concerned about **protecting their image and brand**. Making UCC part of a service can be a way of getting users actively involved in the service. However, it also involves a certain risk as control over the content is difficult. As was established monitoring content is still difficult and costly when large amounts of content are involved.

"Trust becomes extremely important for companies who open up to their users. The company is no longer in control of its brand, its product, its processes and marketing" [Toys manufacturer]

In the Netherlands a manufacturer of crisps organized a contest to determine a new name for a snack. A blog called out their readers to vote for a specific name (the name of the blog) and this name was able to win the contest. The consequences for the producer were not severe (it generated a lot of media coverage), but it does illustrate that getting users involved can be risky.

"For online worlds that rely on advertising, too much freedom regarding UCC can be problematic. An online world must be able to give some kind of guarantee to advertisers of what the world looks like and how their brands will come across" [Games developer]

3.2.5. Commercial relations

A final obstacle is the lack of transparency in the relation between service providers and community members, consumers as well as prosumers. Firstly, community members are not actively informed on the nature of their contract. Information on commercial use of personal information, termination of contract, terms of use and reservation of copyright are "lowlighted". Especially the lack of information on termination of membership in combination is used by the major social networking sites to create a "soft lock-in" and retain users. Secondly, prosumers actively creating value in the same fashion as any other business partner are treated as consumers. With some exceptions, popular UCC platforms are reluctant to share information on popularity of UCC and the business value of contributions by users. The question is to what extent prosumers can be given the status of business partner or supplier.

3.3. Social-Cultural obstacles

- Lack of skills to be able to create UCC
- Lack of media literacy
- Digital divide in terms of access to technology as well as the ability to use the technology and participate
- Bad experiences due to for example viruses, hacking, phishing and spam
- Users still regard the Internet and everything on it as free

Skills

Although UCC can be created easily using mobile phones and online tools that are often available for free, some people interviewed consider that the skills to produce high quality content, technically, professionally and creatively are still lacking. The technical quality is not only related to the quality of the equipment used and the bandwidth available for the upload of content, but also to the skills of people in using the equipment that is available to them and the skills for using editing tools. The professional quality involves quality that is expected in for example journalism. Decent research and the application of the principle "listening to both sites" are qualities rarely seen in UCC, but are necessary when using UCC in mainstream media. This can be improved by education and training, however it will be difficult to monitor for platforms.

"A lot of people still lack the skills and knowledge to produce (quality) UCC that might interest larger audiences" [Game console]

"… video and image require a minimum level of technological knowledge, to dump data from a device to the computer, to use capture and re-encoding software…" [Citizen Journalism]

Creative and artistic quality is a more difficult issue as cannot easily be developed. The networks, tools and platforms to create, upload en share UCC are widely available, and provide creative people with the means to make their creations available to large numbers of people, but it is unlikely this will significantly increase the creativity of people.

"UCC gives the illusion that everybody has a chance to be famous but there are no more talented people than before" [Broadcaster]

The extent of impact of lack of quality will differ depending on the type of content. In journalism, not applying general principles of journalism (such as accuracy of information and editorial control; OECD, 2007a) might do damage to the subject of a report and thereby also damage the platform on which it was published. Moreover when dealing with sensitive information such as medical information, lack of quality might have severe implications.

3.3.1. Media literacy

Literature (Lee, 2008; Benkler, 2006) as well as interviews confirm that two fundamental forces are at the foundation of most of the social-cultural obstacles associated with UCC. The first of is growing abundance of content. With the emergence of vast amounts of UCC, it becomes increasingly difficult to find relevant content. The second one is the blurring of the border between the public and private domain.

Media diversity, reliability and access

UCC is linked to obstacles in the field of media pluralism in several ways. We discuss this relation by following the division between diversity, reliability, independence and quality made by Kelly et. al. In terms of **diversity**, the emergence of a diverse collection of UCC is much praised. Although only a fraction of web 2.0 users is actually contributing, the amount of contributors as well as the diversity in contents and viewpoints have increased dramatically and up until now seem to complement the work of established media, especially in the field of news. This explosion in availability of content enables consumers to find virtually everything they are looking for. Some authors claim that with the emergence of UCC as a news source, citizen journalism will at least partly overthrow professional news reporting (Patterson, 2007). An example of such an alternative source is "We the media" (www.wethemedia.oreilly.com). Up until now, this is not the case. Early research in the Netherlands showed that almost 70% of the news found on the Internet came from established press agencies and news corporations (TNO, 2003). New research started in 2007 (not published yet) showed no significant changes in the source of news. The larger part of the contributions by citizens seems to consist of comments, interpretation and reflection on news reported by professional media.

One of the major concerns of different stakeholders is the **reliability** of information disclosed on UCC platforms. A first obstacle here is the ability of service providers as well as community members to manipulate information on UCC platforms. That (prominent) individuals are manipulating information became painfully clear when Wikipedia revealed the identity of authors in the log files in which changes of Wikipedia "lemma's" are stored. The log files showed that American politicians, media celebrities and even members of the Dutch royal family manipulated their own lemmas or those of their rivals to their own advantage. Not surprisingly, Wikipedia published this information to enhance the reliability of the lemmas.

Apart from the reliability of the "end product", the information used to search and filter out relevant content can also fall victim to these kinds of practices. The majority of UCC platforms in which reliability of information is a key component function as a meritocracy (Spaink, 2008): a system in which everyone can participate, cooperation is the key to success and people are valued for their accomplishments. Reputation management is critical as this is the currency which makes the systems work. Therefore, it is also most subject to manipulation. Where Wikipedia includes an advanced peer-based system of checks and balances to enhance the reliability of information, other platforms such as review sites and on-line market places lack these kinds of mechanisms. Here, the independence of the source is perceived to be the obstacle. Bad reviews or ratings are removed by service providers to uphold reputations of individual prosumers, and ratings, votings and number of visits are changed to benefit sponsors or preferred business partners. Web 2.0 sceptics such as Keene (2007) argue that a lack of search and filtering skills required to identify, interpret and assess the value of the information in such an abundant surroundings might lead to a new digital divide. Up until now, empirical evidence does not support such a trend, although certain groups such as women with little education seem to show a higher level of non-participation (PWC, 2008, Duimel & de Haan, 2008). On the whole, use of social networking sites cuts across all age groups (Ofcom, 2008; SINTEF, 2007). The majority of non-users indicate that next to inexperience, concerns about privacy and security or principal rejection are important motives for not participating.

A final obstacle related to reliability and independence is the authority of "the crowd". To what extent can aggregation of UCC guarantee the reliability of information? Where web 2.0 advocates see a tendency towards the democratization of media, sceptics talk about a populization process. The question to what extent the principle of the wisdom of the crowds will be integrated into professionals will be answered outside the realm of entertainment and encyclopaedic knowledge. UCC platforms are increasingly used in professional practices such as advocacy and healthcare in which accurate and reliable information is critical. Early examples such as www.boek9.nl suggest that it is possible to deploy such mechanisms to professional practices to a certain extent.

3.3.2. Privacy

The most prominent socio-cultural obstacles are related to privacy. In discussing these obstacles, we use a socio-cultural notion of privacy: "the need people have to be able to withdraw from public life: to contemplate, to reflect, to experiment; or to be together with people who are very close and intimate. Privacy thus defined is a socio-cultural phenomenon, much more than a strictly juridical" (Bodea & Lieshout, 2007). Overall, two factors are at the basis of most of the privacy obstacles. First of all, many activities on UCC platforms are associated with the idea of fun, relaxation, and free time. This attitude can lead to a false sense of security, letting one's guard down, less concern with privacy and security and thus a more vulnerable position of those involved. The other factor is the presence of large number of young users who are active in very complex online social environments. Lack of sufficient social skills, and parental guidance or supervision, contribute to make young users even more vulnerable online.

A first obstacle related to privacy is the growth of the passive digital footprint: personal data made accessible online with no deliberate intervention from an individual (Lenhart and Madden, 2007; PEW, 2007d). Especially use of data and linking databases outside of the original agreement between service provider and community member is perceived to be a growing threat to privacy and therefore an obstacle for UCC. With respect to UCC platforms, the discussion pivots around targeted, advertising and linking passively generated information to other information sources. The recent controversy about the Beacon system implemented by Facebook stresses the growing concern on this subject (see below). The persistency of data is a related privacy risk. Whether or not a user account can be deleted or not once the account has been terminated, there is a big chance information will be stored and disclosed somewhere else. Especially data that has been sold takes a life of its own (Aspan, 2008). This obstacle will grow in importance once visual identification technologies such as image recognition will be introduced.

Beacon

Beacon is an advertisement system introduced by Facebook that allows third party websites to send data from external websites to Facebook for the purpose of allowing targeted advertisements and allowing users to share their activities with their friends. Beacon was launched on November 6, 2007 with 44 partner websites.

"If you were on a Beacon site and did some kind of action (say, buying a DVD) that site would try and feed back the information to the Facebook news feed (so your friends would see a message saying "Bobbie just bought Rome Season 2 from Amazon"). A pop-up would appear on your screen giving you the chance to opt out of having your actions made public - and if you didn't tell it not to broadcast your movements, it would assume you had opted in." (Guardian, 2007)

Facebook was criticized for collecting more user information for advertisers than was previously stated, and for not wanting to create an universal opt-out button. After heavy protests of users and the drop out of several business partners, Facebook changed the system.

A second UCC specific obstacle are privacy issues associated with building an active footprint by actively sharing personal information and uploading personal photo's and videos. Several interviewees confirm the risk that UCC will be used in other ways than originally intended by its owner is as least as big as the risk of misuse of information passively obtained by the service provider. Other users of any given UCC platform are not formally bound to contractual terms that set limits to the use of this information. Depending on the privacy settings friends in your personal network, but sometimes also complete strangers are able to seize control over personal and intimate personal information. This implies that keeping control over one's personal information grows into a social matter. Members of social networking sites do not appear to be consistent in their concern on privacy issues. On the one hand, the awareness of privacy as an issue to be dealt with grows. Users seem to be more careful in screening off personal information and applying strategies to prohibit misuse of personal content. On the other hand, these same users are uploading their work histories to LinkedIn (Fox, 2008) and link

on-line content to key pieces of personal information such as phone numbers and information on locations obtained through GPS or other wireless technologies.

Sharing personal content and engaging in social networking activities opens the door for all kinds of abuse. Apart from reported cases of abuse by complete strangers, the majority of reported incidents occurred within the social network of the victims. Defamation, slander, bullying and cyberstalking are listed as the most frequently reported cases of privacy infringement (Hogben, 2007; Ofcom, 2007, SINTEF, 2007). The obstacle here is that practices involving **naming and shaming** are growing popular and lead to a reversal of the burden of proof. Not withstanding court rulings, victims feel increasingly obliged to prove their innocence. A factor that further complicates a proper assessment of these incidents is the semi-private character of much of on-line personal social networks. The question is to what extent these kinds of practices, especially in shielded private social networks are considered to occur in the public domain.

Shielded profiles are considered to be public domain the case of slander

A protected profile on a social networking site is considered to be a public space in the case of slander. A female member of the Dutch Hyves community was found guilty of slander after she accused her ex-boyfriend of being a paedophile on her personal profile

Despite the fact that her profile was shielded and only readable for friends, family and colleagues who she granted access, the paedophile story created a buzz that extended beyond her personal social network and therefore constituted slander.

A related obstacle concerns the victimization of individuals that do no actively share personal content and information. Incidents here include theft of personal (sexual explicit) content, "happy slapping" and other abuse of content intended to damage reputation. After public disclosure, victims are "sitting ducks" as they have a hard time removing this content and restore the damage to their reputation. Also, they have little means to track down offenders and fight the platforms on which this content is made public. On UCC platforms the border between the private and the public sphere seems to blur. Buckingham (2007) sees this as part of a larger trend towards a changing attitude of especially young people towards the boundaries between the public and the private – an issue that has also emerged in relation to phenomena such as "reality television" and the continuing rise of celebrity culture. People with big reputations such as celebrities are in the spotlight when it comes to this kind of victimization, as their demise is deemed most spectacular.

3.4. Legal/Policy obstacles

- Discussions on legal and policy obstacles for UCC can be positioned in wider debates on the future of Internet, safer Internet, converged media regulation, etc.
- The legal / policy obstacles that are identified in the interviews also emerge in the more elaborate legal analysis that is part of this UCC study.
- There is legal uncertainty about the application of copyright rules to UCC and about the ownership of copyright that is used and/or created via UCC.
- Uncertainty on the role and procedures of collective rights societies and uncertainty on the adoption of alternative schemes such as Creative Commons.
- There is legal uncertainty whether specific types of UCC platforms (and UCC prosumers) will classify as audio-visual media service provider and - hence - have to comply with additional rules on advertising and content.
- Privacy rules are not always applied transparent and consistently by UCC platforms, and users" awareness of privacy related risks appears to be low.
- Two cross-cutting policy issues are a lack of harmonisation across Europe's member states and the need for clear rules **and** enforcement procedures.

3.4.1. Introduction

As was mentioned in Part II, section 2.4 on legal and policy drivers for UCC, a range of policies is relevant for UCC. Policies related to - for example - copyright, privacy and broadband are being debated in the broader context of future Internet, safer Internet, converged media regulation, competition, harmonisation of national information society policies, etc. These debates can benefit from an understanding of the importance and the specificities of UCC, and the way in which policies can be an obstacle for UCC. To some extent, the interviewees mentioned the broader debates. To some extent, policy makers link UCC to broader policy debates. For example, in the context of the Safer Internet programme, the European Commission has launched a Social Networking Task Force with 17 operators of social network and UCC platforms (EC, 2008e).

The information below is mainly based on interviews. An elaborate analysis of the legal issues follows in Part III and deals, inter alia, with issues that are mentioned in this section.

3.4.2. Copyright and ownership

Interview partners indicated that there was legal uncertainty about the application of copyright rules to UCC and about the ownership of third party content that is used in UCC. The uncertainty refers to both original works and so called derivative works. Facilitated by technologies, tools and UCC platforms, users now create an enormous amount of content. Users can collaborate, can use existing content, can modify existing content, etc. Different types of UCC platforms experiment with different terms of services, including rules on the use and ownership of content that is created by its users.

"Copyright law is based on the triangle author-editor-publisher. In the offline world this distinction is very clear. However, online the distinction is much more blurred" [Online communities]

The interviews indicated that there are uncertainties when applying existing copyright laws in a UCC environment. Copyright holders seem to accept use of their copyrighted material to a certain extent in web 2.0 environments. As Lee (2008) noticed, the amount of informal copyright practices – practices that are not authorized by formal copyright licenses, but whose legality falls within a gray area of copyright law – seems to be growing. The question is which criteria can be implemented to strike the balance between stimulating cultural innovation and safeguarding the interest of creators/licensors.

"Especially in an environment that supports an iterative process of creating UCC, copyright and the question of copyright ownership can be problematic" [Toys manufacturer]

Concerns about the perceived lack are further fuelled by the threat of legal action. The fear from legal action can chill the use and commercial application of UCC. Companies usually do neither fully control nor own all the content that is distributed using their platform or website. This might make them reluctant to use UCC or to expand UCC features, because monitoring large volumes of content is still difficult, time-consuming and therefore expensive.

"It is difficult to find a balance between open and free conversation and preventing any legal issues. We simply cannot afford to be sued. Insurance for claims is hard to get" [Online communities]

When the ownership of content is clear and when there are serious doubts on the legal states of the content (or the new content in which it features) the obvious choice is to not use the content. However, there will be cases in which the ownership of content is difficult to trace, due to the versatile and dynamic nature of movements of content on the web (the origin is difficult to trace), the iterative nature of content (many might have contributed to the creation of the content) and legislative environments that differ nationally (lack of harmonisation).

"Copyright is not harmonised between countries and media types. UCC is all about collaboration across borders. When platform providers are not sure if content is legal or not, most of the time they choose to shut the content down"

A related matter is the compensation of amateur creators for the commercial use of their UCC. The ability to measure and value content in UCC environments is limited. UCC service providers are adopting proprietary strategies in measuring the activities and use on their platforms, each applying

different criteria in establishing what counts, for example in the case of video services, as "one view". The diversity of measuring schemes prevents right holders and public services to aggregate measurements and get a grasp of the actual use and value of their creation. Amateur creators of popular UCC – that may have been found niches - have the capability and bargaining power to strike bilateral business deals with the most important UCC platforms to overcome this difficulty of measuring and valuing content to a certain extent. Amateur creators without the scale and scope to be able to deploy such activities have more difficulty in getting a fair price for their content.

Leaving aside whether amateurs create content with the intention to make a living, the interest of an amateur whose creation grew into a popular commercial product is rarely safeguarded by service providers or government. Service providers and users are not in bitter conflict over safeguarding these interests. However, amateur creators often sign (some of) their rights away without really understanding the consequences. The criticism of this exploitation of free labour seems to be growing (Böhle et. al., 2008), and some even argue that UCC platforms are growing into web 2.0 "sweatshops" (Newsweek, 2008). Not all users are aiming to make a profit. But as users are actively contributing content and thereby creating business value, jurisdiction in the field of contract rights might also provide the basis for government to let amateurs keep control over their creations. On the other hand, the analysis in this report shows that "trial and error" learning by users in the interaction with their service providers as well as media attention are effective ways to increase awareness for this obstacle (see below).

Changing UCC platforms to make money

Amateurs whose videos grow popular on YouTube seem to switch over to other platforms to generate revenues that enable them to earn a living by producing UCC. Especially Revver.com seems to be an attractive option.

Fritz Grobe and Stephen Voltz, the people behind the popular viral video called the "Diet Coke and Mentos Experiments," have earned more than 28,000 USD from ad spots at the end of the video after they switched to this site. Other successful YouTube uploaders such as AskaNinja and Lonelygirl15 quickly followed (although Lonelygirl15 turned out to be a fictional character and thereby a hoax). Most of these amateur content creators choose to first upload their UCC on Revver, which enables them to syndicate to other UCC platforms. In most cases, the Revver advertisements stay linked to the UCC which is disclosed on a different platform. In disclosing these clips on other streaming video platforms such as YouTube and Metacafe, the advertisements are removed.

3.4.3. Licensing: collective rights societies and alternative schemes?

Flexible licensing agreements as offered by Creative Commons were created to enable content creators to enhance transparency regarding the uses that are allowed. These licensing agreements offer the opportunity to formalize circulation of content and enable more creative use in for example mesh-ups or collaborative works. Several interviewees report that professional content creators such as journalists, freelancers and professional bloggers are using these licensing models.

Apart from these well informed, skilled "early adopters", alternative licensing agreements have not been embraced by a larger mass of UCC platforms. Most popular UCC platforms do not yet actively integrated e.g. CC licensing and only very few amateur content creators seem to use them. Collective rights societies continue to develop "light" mechanisms that fit the Internet context and that address the content use and content value measurement issues that are mentioned above. In the meantime, collective rights societies are bypassed by bilateral business deals as well as alternative licensing systems. Especially the second mechanism operates outside their span of control.

Interviewees also refer to the **lack of harmonization** between collective right societies in Europe (see also EC, 2008b). Some interviewees argue that bypassing these organizations is preferable in case of determining fees or settling a case of copyright infringement since the coordination and transaction costs involved are substantial, and the calculations of traditional rights holder societies are still based

on potential instead of actual use. This does not match the Internet context, with an abundance of content that is potentially used by many users.

3.4.4. When is UCC an audio-visual media service?

Interviews have pointed to a lack of legal certainty whether specific types of UCC platforms (and UCC creators) will classify as audio-visual media service provider and - hence - have to comply with additional rules on advertising and content. To a lesser extent, there is uncertainty as to whether rules on software, electronic communications and electronic commerce apply. The uncertainty is caused by the "fuzzy" nature of UCC services. What are the roles and the intentions of the service provider and its users?

For instance, UCC services can involve a substantial level of editorial control, by the service provider and/or by users. Commercial purposes and professional practices can be mixed with the kind contributions of amateurs. The Audio-Visual Media Services Directive that is being implemented in Europe's member states, differentiates between televisions broadcasting and on-demand services (linear and non-linear). A number of UCC services will qualify as AVMS, e.g. being professional and commercial, with the media service being the main purpose of the website. If so, it will probably concern an on-demand service, to which less rules apply than television broadcasting services.

3.4.5. Privacy

Privacy rules are not always applied transparent and consistently by UCC platforms and users' awareness of privacy related risks appears to be low. To start with users: many users seem to accept the fact that there is a trade off between revealing one's personal data and making use of the possibilities UCC platforms and web 2.0 in general. However, the lack of transparency in the use of personal data and content is a growing concern. Users are not aware - or made aware - how their passively or actively created data or content is used - or will be used in the future. The company policy and the criteria that are applied to moderate a community and for example to remove content or community members is seldom disclosed by UCC platforms. Up until now, national governments lack the means to reinforce their general consumer protection policies or to negotiate efficient alternatives for UCC platforms (e.g. co-regulation).

"One can produce very subjective content regarding other people" [Telecommunications operator]

However, this lack of instruments to regain control over one's privacy - including the right to be left alone - becomes clear in the few cases in which very personal content grows into a media sensation. There are examples of famous people and of "regular" citizens. Victims need to personally address UCC service providers with the request to remove personal content. Efficient and well tested procedures, including a right of reply, are not yet common for UCC platforms operators.

3.4.6. A lack of harmonisation across Europe's member states

A cross-cutting policy issue is the lack of harmonisation across Europe's member states. This complaint was mentioned in several interviews, e.g. in the context of copyright and media regulation. Many popular UCC websites are international. Some have national versions. Other websites are national or even regional, but they compete with UCC websites from other countries. In all cases, a lack of harmonisation of national policies and rules may hinder business, create uncertainty for users and may influence competition between firms that operate from different countries.

A number of interviewees were able to add nuance to the discussion on this obstacle. Some of the policies that have an impact on UCC – such as media policy – can be influenced by national preferences related to culture, language, pluralism, etc. For other policies – such as copyright, support for new licensing schemes, consumer protection and competition – it may be possible to align national interests and explore European solutions.

3.4.7.   Governance issues

As mentioned above, UCC obstacles can be positioned in broader policy debates on future Internet, converged media regulation, etc. The application of existing (old) rules to new (dynamic) developments such as UCC creates legal uncertainty. This is also linked to the international features of Internet. This implies that national policy maker will loose some control over the behaviour of "their" firms and citizens on-line (RAND, 2008). The migration – to some extent – to European and global regulation goes hand in hand with the search for effective and democratic types of self-regulation and co-regulation. This line of thought was put forward by several interviewees.

However, few suggestions were made on the design of these new regulatory schemes. The scheme will be different for different topics, e.g. a light role for governments in managing and enforcing copyright, and a stronger role for privacy infringements (and side-effects such as identity theft). It was stressed that whoever will regulate and however this is organised - e.g. self-regulation or co-regulation in different shapes and sizes - must clarify not just the rules but also the enforcement procedures.

4. Implications

4.1. Technological implications

Technological implications are numerous and hard to boil in down into a closed set of directions. First we discuss the immediate implications of the drivers and obstacles identified earlier. Secondly, we sketch the long term implications as sketched by different interviewees as well as discussed in literature.

4.1.1. DRM

An immediate implication in the field of copyright is the lack of easy-to-use licensing systems that allow media owners to have informed discussions with UCC platforms and build sustainable relationships. As Screendigest et. al. (2006) concludes, being able to let content circulate at moderate transaction and coordination costs is crucial in getting these business models feasible. Most of the UCC platforms base their business model on enabling this circulation. The question is to what extent the circulation of professional as well as user generated content needs to be 1) within the span of control of the service provider, and 2) whether this control is being enforced before or after the content goes into circulation. Since content began circulating out of the traditional span of control with the rise of file sharing networks, service providers enabling users to create and share content have sought ways to canalize this circulation and set up interfaces with small and large, professional and amateur content creators.

In this process, DRM technology plays a vital role. Up until recently, DRM technology was associated with publishers and other copyright holders preventing access, copying or conversion of digitized content. Instead of protecting content by embedding the protection in hardware or encrypting the content, the management of rights on digital content is based on metadata. Encryption and disabling properties are still part of the content, mostly highly decentralized and connected to individual clips of content. The challenge here is to create disabling and take down capabilities and tracking software that can stand the bypassing tricks of hackers. Interviewees claim to have developed secure watermarking technologies, and combined wit the implementation of acoustic fingerprinting technology by YouTube on its platform, the development of forensic DRM technology is increasingly perceived to provide an effective tool. If these kinds of systems prove to be robust, they might enables service providers to monitor the management of rights afterwards instead of enabling users to access the content beforehand, creating windows and reach along the way. A second benefit might be the increased flexibility in licensing agreements. Managing rights based on metadata increases the possibilities to tailor the licensing agreement to the specific needs and wishes of the content owner. Especially amateurs without commercial motives might be served in this way. Some interviewees stress that management of content can only partially delegated to technology. Right clearance is perceived to be difficult to automate. Numerous exemptions need to be taken account and creative use of copyrighted material in for example mesh-ups creates a complexity in making a proper assessment. (Limonard and Esmeijer, 2008)

4.1.2. Interoperability

The lack of interoperability between UCC platforms might prove to stall the widespread implementation of new DRM features. However, due to the maturing of the market and new market dynamics, UCC platforms seem to be increasingly aware that opening up their platforms to allow for more accountability and integration with business associates. This slow but steady increase in interoperability is not limited to DRM, but is also manifest in the field of advertising systems open application development.

"Shared identity services, such as OpenID, which allow Internet users to log on to different websites using a single identity, can sustain the development of social media platforms" [Advertising company]

As social networking is a crucial component on virtually every UCC platform, the manner in which user metrics are analysed also changed. Where traditionally demographic parameters are used to describe the use of services and segment audiences, UCC platforms increasingly use sociographic

characteristics of users to perform these activities. Sociographic parameters are drawn from social network analysis and include centrality (and therefore social influence) in a network, level of engagement (dedication or loyalty) and the different roles people are playing in social networks.

4.1.3.   User empowerment

Tools to empower users are increasingly being developed, as part of existing and new UCC platforms or as stand alone services. New UCC platforms are targeting specific, highly engaged target groups and build in advanced features to let users keep control over their data and content. The Dutch SNS http://www.hyves.com/ for example enables users to segment between different sorts of social networks (friends, family, colleagues) with their own privacy settings. This enables users to set up their own privacy strategy instead of being limited to the choice of keeping profile information either private or public. Thereby users can be directly involved in protecting their own privacy in an environment where it might be difficult for policymakers to take fully care of this.

"People can manage access to their personal data and set different levels of access to their content according to whom the want to make it available to…" [Advertising company]

Other websites such business oriented SNS, on-line market places such as www.ebay.com and www.wikipedia.org use social authentication mechanisms or social hierarchy structures to increase the trustworthiness of community members. In parallel, some sites such as www.bankofdata.nl specialize in providing an environment which guarantees availability and full control over personal content. This might provide platforms with the ability to distinguish themselves from other platforms by means of providing a safe environment in which users are in full control over their personal information and content.

4.1.4.   The next web

Building on the success of web 2.0 in general, the introduction and adoption of Web 3.0 technologies is generally perceived to be the next step in the evolution of the Internet for the decade 2010-2020. Taking into account that the discussion on what web 3.0 entails has not fully crystallized yet, different directions can be discerned:

- Transformation to a seamless web: with the emergence of more interoperability and refined application integration, the web will be transformed into a more seamless environment which enables users not only to interact with a webpage, but also to modify the source or website itself. Wikipedia and Facebook are said to be taking the first steps towards a seamless environment.

- The data web: Web 3.0 is also said to be the "data web", an interoperable environment in which databases and resources are as openly accessible and linkable as web pages. Current predecessors are p2p file sharing networks and grid computing applications, but also numerous collaborative location based web services.

- The semantic web: with the advancement in artificial intelligence, intelligent agents and applications will become part of the web environment, technology that captures the semantics of content. This is a vision of information that is understandable by computers, so that they can perform the more tedious work involved in finding, sharing, combining and translating information.

- Other directions include the move towards 3D environments in which navigation searching and communicating is much more intuitive. Also, the Internet of things is frequently named as a promising vision. Here, objects enriched with RFID or other forms of radio tags are an integral part of an (ad hoc) communication environment.

To what extent these promises will be fulfilled remains to be seen, as much of the technological developments are still in their infancy. Some state that especially the role of intelligent agents and applications such as translation software based on artificial intelligence is overrated (Böhle et. al., 2008). However, the first signs of more interoperability between platforms are showing the potential of combining data sources. Also, owners of large content databases such as archives are profiting already from media mining technologies in digitizing their archives.

4.2. Economic implications for UCC platforms

The rise of UCC used to be named as one of the main developments that could disrupt established power structures in media (Andersen, 2007). Although it is still too early to determine to what extent this change in business models is going to affect entire markets, there are some markets that were heavily impacted by the rise of user generated content services. The most notable examples are the markets for on-line encyclopaedia, the on-line adult industry and the market for music videos. Wikipedia wiped out the supply driven competition in a short period of time by letting users build an easily accessible library of knowledge. On the demand side, the adult content industry is a good example of a more gradual shift towards a UGC driven market. The "girl next door" is growing more popular and premium adult media players seem to have trouble keeping their on-line market share.

On the other side, most major media companies are setting up user generated content services themselves as well as seeking to take over popular grassroots initiatives. After the first wave of acquisitions by global media players such as NewsCorp (MySpace) and Google (YouTube), other companies with a more national focus and in niche markets are also adopting this approach. It seems impossible to predict which services will be embraced by on-line users and media companies are closely monitoring emerging on-line initiatives to take over. As a consequence, most of popular UCC platforms are either (partly) owned by established media players or have strong business relations with these kinds of companies.

With or without ownership, the ties between UCC platforms and established business activities are growing. UCC platforms are increasingly goal oriented: to discover talent, to generate ideas or knowledge, or to produce quality content that can be resold. Overall, there is a tendency towards creating a market place that brokers between supply and demand for UCC. The first and most quoted example of such a platform is www.current.tv: a UCC platform as well as TV channel that airs its most popular UCC on-line on its TV channel, but also was able to create a market place between advertisers in need of UCC for their campaigns and users offering UCC. Broadcasters soon followed, and especially talent shows in the tradition of Pop Idol enabled by UCC platforms seem to provide solid business model. But also outside media, UCC is increasingly becoming a critical building block in organizing on-line market places. Recruitment agencies, real estate brokers, dating sites, knowledge brokers, travel and tourist agencies and many more are creating incorporating UCC in their on-line market surroundings.

This is part of a larger trend of diversification in UCC platforms (Economist, 2008; IAB, 2008; Ofcom, 2008). Most new UCC platforms seem to target a specific community with a relatively high level of engagement and trust between its members. Different directions can be discerned:

- Social networking sites for small high trust social networks such as families.
- Communities designed to cater inhabitants of a specific region or even village, with regional news, a social calendar and local organizations (sport clubs, SMEs, local politicians) as important members. Examples are www.rheinvideo.de and www.dorpspleinen.nl.
- Communities aimed at the exchange of information on specific "public" topics, such as medical information, education, activism, development aid, etc.
- Location based services, providing either members of social networks with information to find each other ad hoc (friends, but also tourists with a common interest) or linking content to a specific location.
- Professional communities created for business networking (www.linkedIn.com, www.bebo.com)
- Genre specific communities, mostly aimed at talent development such as music (www.sellaband.com), video artists (www.revver.com, www.sevenload.de) politicial cabaret (www.Kabadu.de)
- Knowledge broker platforms such as (example) that link a community of experts to the questions of mainly companies

Especially UCC service providers in the last few categories are increasingly targeting Professional Amateurs (ProAms, see Leadbeater, 2004), amateurs with a high level of engagement who are offered a chance to earn at least a part of their income on these platforms. In contrast with most generic UCC platforms, these service providers are enabling their customers to build a career based on their UCC contributions by offering tools such as flexible licensing systems, feedback on use and

revenue sharing agreements. How to further formalize the relation between ProAm and service provider is still a challenge for several of these platforms because of the uncertainty of their contractual position (to what extent are they considered to be employees?).

This does also point to the emergence of UCC for which financial gain or revenue models are not the prime concern. This type of UCC involves the participations of users (or citizens) in areas that used to be the domain of specialists. There are numerous examples of platforms and forums were people exchange medical information (HealthBoards, PatientOpinion and PatientslikeMe) or information on education (Curriki, WikiEducator and CCLearn). Although research in the actual impact of this "public" UCC is still scarce, at least the examples provide a first clue for additional value the engagement of users in UCC might have in the future and the importance of developing skills in this area.

4.2.1. New activities

Although revenues associated with UCC are still uncertain, it does trigger economic activity. In that sense the value-added of UCC might not be direct revenue generation, but a driver of economic activity in other areas. This new economic activity can be in the interaction between UCC-platforms and media companies, advertising, search, increased use of networks (and thus revenues for operators), and content aggregation (OECD, 2007a). The vast amount of information available on the Internet and the fact that there is still growth in the supply of information and UCC triggers new activities for example search engines and aggregators of information.

"As the amount of content availability increases exponentially, the role of aggregators will grow simultaneously" [Virtual World]

Moreover some of the interviewees identified spin-offs of UCC to be an important value-added. For example bloggers publishing books and recipe sharing sites producing cookery books.

4.3. Social-Cultural implications

In general, socio-cultural implications spring from the blurring of boundaries between domains. Apart from the blurring between the publics and private sphere and the emergence of numerous semi-public environments, it is also increasingly difficult to draw the line between the boundary between commercial and non-commercial.

4.3.1. Diversity

In terms of diversity, the emergence of a diverse collection of UCC is much praised.

Having said this, there can be differences in the availability of UCC for different categories of content. For example, initial research shows that the majority of the news found on the Internet comes from established press agencies and news corporations (Mikko, 2008). The larger part of the contributions by citizens seems to consist of comments, interpretation and reflection on news reported by professional media. With these insights, some commentators argue that instead of UCC directly competing with professionally made news, it is polluting the media landscape. News sources, facts and citations are removed or selectively used, and generally accepted news reporting principles are not generally applied (Mikko, 2008).

In an attempt to eliminate the obstacles related to reliability, UCC service providers have implemented different types of checks and balances to ensure the trustworthiness of the content they host. In general, UCC platforms aiming to filter out quality content in order to integrate or resell this material to professional media make use of a professional staff of editors to filter and check UCC, mostly before upload. Platforms such as Wikipedia aiming for information aggregation use a combination. First of all, self-regulation mechanisms are being used, mostly in the form of a hierarchal reputation system. This system allows for the creation of a dedicated set of trustworthy community members that is able to monitor the majority of content. This self-regulation is complemented by a editorial staff that compares the information on complex subjects and highly discussed lemma's to reputable peer-based scientific

sources to ensure quality. Up until now, this has led to a level of information quality comparable to that of Encyclopedia Brittanica (Giles, 2005), although the subjects covered show a bias towards certain themes such as the Internet, technology and entertainment. On UCC platforms such as SNSs and virtual worlds, moderation to ensure reliability of for example identities is more complex. Moderation occurs mainly by actively monitoring as a community member and by notification by users.

Although only a fraction of web 2.0 users seems to create original UCC, the amount of contributors as well as the diversity in contents and viewpoints have increased dramatically and up until now seem to complement the work of established media, especially in the field of news. This explosion in availability of content enables consumers to find virtually everything they are looking for.

4.3.2. Cultural fragmentation

The diverse supply of content in different platforms, and the ability to take part in different groups easily have fragmented the online world. This fragmentation occurs as users are able to organise themselves in groups based on similar interests, however small or specialised these interests are. This also enables users to experiment with their online identities (Ofcom, 2008) Moreover people can take part is multiple groups (Ofcom, 2008) with different interest, thereby creating a patchwork of interests and communities that creates the cultural self of users.

"UCC has endorsed the emergence of a pastiche culture where different styles and trends can be applied by one single person at the same time" [Games developer]

4.3.3. Privacy

As the boundaries between the public and private fade, the notion of privacy is increasingly challenged. It becomes increasingly difficult for government, but also service providers to actively provide consumer protection measures as users actively create and disclose their contributions to a wider audience. Abusive use or behaviour on UCC platforms are difficult to manage as the means to control the damage done are limited. Victims of identity theft, disclosure of harmful content and for example slander have little means to track down offenders and fight the platforms on which this content is made public. Also, on-line users seem to find this kind of material increasingly entertaining, as so-called "shock-logs" specialize in disclosing UCC and reputation damaging content to their loyal user base. Buckingham (2007) sees this as part of a larger trend towards a changing attitude of especially young people towards the boundaries between the public and the private – an issue that has also emerged in relation to phenomena such as "reality television" and the continuing rise of celebrity culture. People with high notoriety such as celebrities are in the spotlight when it comes to this kind of victimization, as their demise is deemed most spectacular.

This implies that keeping control over one's personal information grows into a social matter, and privacy increasingly becomes a social construct. On the whole, stakeholders perceive the empowerment of users as the way forward, by either government or private initiatives such as www.reputationdefender.com . There are also online social networks that are already working on more sophisticated structures for enabling users to set their own privacy levels, for example on a person to person basis.

4.3.4. Users as creators

The blurring of boundaries between what is considered to be a commercial environment or not is especially clear in the field of copyright infringement and valuation of UCC. With the exception to the rule of Wikipedia, virtually all UCC platforms are commercial environments or act a commercially exploited facilitator of non commercial initiatives (such as www.blogspot.com). Especially some examples in virtual worlds show how this leads to new situations. These are environments in which users make use of the building blocks provided by the service provider, but also include a platform specific currency and trade market that are linked to actual revenues in real life. For example in Second Life, the first case of alleged copyright infringement was reported, as a user claimed that his creation (a virtual bed) was being copied and sold by another community member (Reuters, 2007).

Pricing and protection of virtual items in virtual worlds, which in principle are not scarce (OECD, 2007), are difficult and need to be dealt with.

The increased interest in UCC by users and their willingness to be producers of content does point to a large potential for organisations. In spite of discussion on quality of content that is produced, the lack of original (legal) content and limited number (in percentage of internet users) of people actually producing themselves, the upside is that in absolute numbers the number of potential producers that can be reached is high; 1% or 3% of all internet users is still a lot. Moreover if the quality of these contributions is low, then organisations using "crowd sourcing" can educate creators on the standards that are required. Large quantities of good UCC contributions aren't always the goal. For example when using UCC to come up with an answer to a solution or to develop or improve a product, then one excellent contribution is all that is necessary.

4.3.5. Media literacy

People will need to be educated to be able to increase the quality of UCC, to be able to participate and prevent a new digital divide (OECD, 2007b; RAND, 2008), to be safe when producing and sharing UCC and to be able to protect minors.

As was identified in the interviews skills regarding the use of tools and the production of content are still lacking. This refers to skills in the areas of technology, professionalism and creativity. The skills to make UCC are necessary to prevent a new digital divide. Although differences between the young and elderly are disappearing in terms of use of computers and access to the Internet, the level of sophistication in the use differs greatly (OECD 2007b; EC, 2008b). This includes the use of mobile phones for other things than making calls (browsing mobile broadband, taking picture and video, sending content to the web, etc.), equipment such as video and photo camera's, (online) editing tools and online platforms, etc.

A second type of skills that needs to be further developed are skills related to safe surfing, awareness of risks of publishing content online such as privacy risks (Ofcom, 2008), knowledge regarding the use of copyrighted material, and legal knowledge regarding entering into relations with platforms (users as producers). This type off knowledge needs to be promoted among all Internet users and UCC creators. It refers to skills in the following fields:

- Safety: risks associated with being online, risks of sharing information online, risks of uploading (private)content, addiction;
- Copyright material: what is legal and what is not. This is difficult for users, but also for service providers. This involves legal knowledge on what is legal, but also determining ownership of content.
- Legal knowledge: what are the rights of users when UCC is uploaded to a platform, does the user implicitly enter into a contracting agreement when uploading, etc.

"Users are often not aware of copyright regulations and the rights they sign away by uploading their content to a platform. They do not realise that the service platform can and will exploit the content if it is commercially attractive" [Social network / virtual world]

An area of knowledge that is underdeveloped is that of knowledge of older generations. Although younger generations grow up with the web and have far better skills than the older generations (OECD, 2007a; OECD, 2007b; RAND, 2008), it is this older generation that needs to have sufficient skills to support minors in online worlds and help them to stay safe. This is particularly important since there is still a lot of unclear on regulation to protect users.

"There is, for instance, no strict regulation regarding "online grooming" (luring users in virtual worlds to meet in a non-secure environment like [Instant messengers / chat]… Education will become increasingly important to ensure safety online" [Social network / virtual world]

It is important to keep in mind that this new environment creates new social constructs and skills that can have an impact on offline worlds (RAND, 2008). An example is the change in language that occurred due to the use of instant messaging and chat. Moreover, social behaviour in the online

environment, for example in social networking, might translate into real life, making a new type of skills in the offline world important.

"Gamers who are familiar with the principle of online worlds and UCC are creating new ways of dealing with information… [the social construction] is shaped according to shared values and interests of a unique world that is created and mutated by the community" [Games developer / virtual world]

Moreover, as companies start to incorporate users' contributions in their business, this will require a new set of skills of employees. They have to communicate and collaborate with people that are outside of their company (RAND, 2008). These relationships are no longer bound by the rules that are valid inside a company. It requires the formation of ad-hoc relationships in which each relationship will have its own belief system, rules and agreements. This will be a translation of the cultural and social fragmentation that takes place on the web. In the end these ad-hoc systems will have to rely heavily on trust.

4.4. Legal/Policy implications

National regulation is no longer fully suitable for an environment in which people are part of a larger virtual world in which they move effortless across national and legal obstacles. The enforcement of these existing rules or new rules based on the premise of traditional, national regulation will prove difficult (RAND, 2008). This requires new ways of dealing with regulatory issues that take into account the characteristics of the new world that has no national borders, that has a wide variety of services (that do not adhere to traditional sector boundaries), a dynamic environment that changes quickly and an almost unlimited supply of content (that may or may not be legal). Due to this international nature, policy instruments that are to be used need to rely more on setting the right conditions and achieving commitment by the stakeholders (Marsden, 2008; RAND, 2008) and need to be flexible enough to deal with the fast changing environment. Typically new (European) legislation will take a few years to be established.

"Media and technology are changing rapidly and it takes too long for authorities to respond to these changes" [Virtual world]

In general interviewees favour restrain when it comes to regulation of matters concerning the web and UCC. They do favour creation a policy that targets at the creation of the conditions for users to engage in UCC. This involves creating clarity on legal and policy issues (e.g. copyright), protection of users particularly minors, promoting availability and affordability of (mobile) broadband Internet, and educating users (user empowerment). This means that governments should focus on setting the right conditions by means of a sophisticated policy mix, incorporating innovation policy, competition policy and consumer policy.

PART III – Selected legal aspects of UCC

1. Introduction[19]

User created content is as old as human creativity. Even digital user created content is a well-known phenomenon and subject to a range of existing business models (email, private website hosting, open channels, discussion fora, mailing lists, etc.). Many of the legal issues raised by user created content are not new either, including questions of copyright ownership, liability for harmful content, privacy issues and questions of consumer protection. UCC does not operate in a legal wasteland. Having said this, UCC, in combination with web 2.0 technologies, adds a new complexity to the traditional production chain for (digital) content and casts a spotlight on two new players in information law which, so far, have received limited attention: users and UCC platforms.

Users

With web 2.0 technologies, users have access to widely available, affordable and increasingly sophisticated tools to create, assemble and distribute digital content, and to interact with content from other users. The content that users produce spans a wide range from personal self-expression through the posting of baby pictures, vacation clips and online scrabbles, to artistic expression, political or social commentary and citizen journalism. Similarly, the quality of user created content can be that of a badly-made home video, but can also reach professional or semi-professional quality.

An often-cited feature of user created content is that users step out of a strictly private sphere, and into the public forum. As we will show in the course of this analysis, the public-private dichotomy is in different respects very relevant in information law. The fact of whether the creation and dissemination of content is private or public in character has implications for a number of rules, including audiovisual law, data protection law and copyright law. For the legal analysis, it can make a difference if content is shared with a few friends or communicated more broadly. Differences can arise with regards to intellectual property rights attached to that content, but also with regard to the responsibility for the quality and accuracy of that content. Differences can also arise with respect to the protection of personal information and content that users post online.

Then there is the mere scale of user activities, be it with regard to the production, aggregation or distribution of content. Not a few committed nerds but millions of enthusiastic users are active in distributing (own and third party) content, in reviewing and rating it, in producing as well as in simply watching/listening or reading what other users made. The scale of digital user activities can affect the economic and social impact and relevancy of these activities; it can have consequences for eventual harm and benefits from user participation. These are not necessarily aspects that affect the validity of legal norms themselves (though it could). More importantly are probably the implications thereof for law enforcement.

With improving quality of user created music, videos, stories and pictures, UCC becomes more attractive for exploitation by both, users themselves and third parties. Part I of this study gave a first impression of the breadth of different business models that aim at doing exactly this: re-utilize and, eventually, commercially exploit UCC. As a side effect of this, the relationship between users and established providers of digital content is undergoing a change. The traditional sender-receiver or producer-consumer model makes way to more differentiated, participatory models. Sometimes, UCC and professional content is even competing. This raises, on the one hand, questions of under which circumstances content creating users should be treated similarly than professionals in order to ensure fair competition between established and new content producers. Must users that aggregate and operate their own "broadcasting channel" observe the same or similar legal obligations than e.g. professional broadcasters or providers of "non-linear" audiovisual services? On the other hand, UCC raises questions about the fairness of (contractual) relationships between amateurs and professional media.

UCC PLATFORMS

The active involvement of viewers in the production and supply chain for digital content renders the traditional chain more complex. New players are emerging, and established players are taking on new roles. An example of the latter are broadcasters and newspapers that deviate from the original publisher-model (provider-initiated professional content and prior-publication editorial control) to offer platforms for users to submit amateur content in own initiative. At the same time, we witness the arrival of entirely new players and business models. Part I of this study described a range of services that specialize in the provision of a platform for users to post, rate and exchange content of other users, and/or that find new ways of re-utilizing and, eventually, commercializing user created content. As opposed to the business model of many established media players, UCC platforms invite in the first place amateurs and not so much professional suppliers of content. They support users with new functionalities, such as software tools and storage space, rating mechanisms, search functionalities and communication facilities, notably Social Networking applications. UCC platforms also take over functions of established players, notably the dissemination, aggregation and commercialization of (amateur and professional) content. In so doing, UCC platforms take an intermediating position between users, established players and the audience.

The more obvious legal questions here are to what extent existing information law is applicable to UCC platforms and their various business models (e.g. financing through target advertising or the selling or personal data of users). On a more fundamental level the question is if and if yes how existing information law defines tasks and responsibilities of UCC platforms. One of the most prominent and also controversial questions here is to what extent UCC platforms can be held ultimately responsible for unlawful user created content. A related question is to what extent UCC platforms fall under content rules (protection from harmful content, hate speech, diversity enhancing provisions, advertisement rules, etc.) that apply to traditional media players. Equally relevant is the question of whether existing information law succeeds in organizing the relationship between UCC platforms and users in a fair and balanced manner. The extent to which users will be willing to make their creations available to third parties, e.g. via commercial platforms, also depends on the extent to which their rights and legitimate interests in relation to the operator of the platform are respected. Many of the conditions under which user created content is being produced and made available is subject to private ordering, in forms of contracts between the operators of such platforms and users (the so called terms of use). Accordingly, contract law can protect the legitimate interests of users, provided it succeeds in striking the right balance. Similarly, consumer law can protect the interests of users, provided "prosumers" can still be qualified as "consumers".

The arrival of new players, be it new services that operate on the basis of user created content, or users that take on functions of traditional players, adds further to the decentralization and globalization of the instances that take decisions about what kinds of content are being published and distributed. Decentralization and globalization of information markets are arguments that are regularly being put forward to criticize the validity and efficiency of traditional top-down regulatory concepts, and to plead in favour of more flexible self-regulatory alternatives. For the same reasons, the question of whether there are alternative, more effective means of regulation is also relevant for user created content (services). An additional facet that is particular relevant in the context of web 2.0 is to what extent (active) users themselves are part of solutions to legal challenges that user created content poses.

In the light of this introduction, this chapter will explore some of the most important and obvious implications of user created content for existing European copyright law, media law, contract law, e-commerce law and data protection law. Considering the restricted time available for this study and the breadth of the legal issues raised, we can only analyze a number of selected aspects, notably such that the case studies and interviews have identified as particularly important. Also here, the analysis will often have to remain superficial and cannot go into in depth. Instead, it will point out where further research would need to be done. Because of the same reason and because the sector is still very much a sector in development, the chapter will often point to pending questions rather than offering solutions. Note that UCC can be a broad range of different kinds (video, text, music, games, etc.) and categories (semi-professional, amateur, commercial, non-commercial, etc.), and that for the different types and categories different legal norms may apply. Having said this, for said reasons the analysis can only in parts differentiate between the different types and categories of content. We will analyze in the first place how existing laws apply to UCC. This study prepares the ground but does not take away the need for more in-depth research on concrete legal proposals to reflect some possible future, more

fundamental implications of UCC for information law and policy (e.g. if UCC requires changes in information law to reflect the contribution of users to the realization of pluralism and access to information, or if there is a need to change our understanding of the concept of privacy in the light of web 2.0 and social networking applications). We try to focus on aspects that are specific to user created content. It is not task of this chapter to analyze aspects that are symptomatic for a wide range of more principal problems that the production and dissemination of digital content encounters in an online environment, such as the use and protection of Digital Rights Management (DRM), problems of identify theft and spam, issues of international private law and, more generally, the applicability of national law in a cross border environment, liability of online intermediaries for digital content in general, etc. In practice, however, the distinction is not always easy to make as many of the issues that UCC raises are parts of larger issues of information law on the Internet.

The chapter will analyze European law. Where certain issues have not been harmonized yet, the analysis might employ examples of national law in order to discuss more general principles that are common to national laws of the European member states. A systematic comparative analysis, however, would by far exceed the scope of this study. The examples analyzed are predominantly European examples, questions of the applicability of the law of the European member states to e.g. US services fall out of the scope of this study.

In addition to the input from the case studies and the interviews, we examined in more detail the contractual terms of the following UCC platforms: HabboHotel, Flickr, MyVideo, Dailymotion, Skoeps, Mobango, Last.fm, MySpace and Wikipedia. Our selection was guided by three criteria in particular: a certain popularity/reach of the site, a representative selection of different categories of platforms (video, music, citizen journalism, mobile, focus on collaboration) and where possible a preference for European sites. The idea behind the case study of selected contractual terms was not so much to give a quantitative overview on how the majority of European sites deals with certain issues, but to identify relevant issues in general. Examples of contractual practices will be used throughout the chapter to illustrate the legal analysis. We furthermore collected and analyzed some of the most relevant existing co- and self-regulatory initiatives in this field and presented them in form of an overview.

The way this part dedicated to selected legal aspects of UCC proceeds is as follows: the first four chapters will deal with selected legal aspects of UCC, notably UCC and copyright law (chapter 2), UCC and existing provisions about content and presentation of electronic content (chapter 3), UCC and the existing framework for intermediary liability and (chapter 4) UCC and data protection law (chapter 5). These sections are followed by a more general section that analyzes certain practices of UCC platforms in the light of contract law (chapter 6). We conclude this chapter with a final analysis and conclusions (chapter 7). Finally, Annex 4 will provide an overview of the existing co- and self-regulatory measures in this field.

The legal analysis has been performed between April and July 2008. Meanwhile, some information, norms or terms of use might have changed.

2. UCC and copyright law

User Created Content (UCC) refers to various kinds of media content that are produced by end-users, most generally amateurs and semi-professional individuals, and that are made publicly available. The emergence of UCC to a large extent can be attributed to the expansion of media production through new technologies that are accessible and affordable to the general public. These include digital video, blogging, podcasting, news, gossip, research, mobile phone photography and wikis. Such technologies can be characterized as "conversational media", in that they encourage the publishing of one's own content and commenting on other people's.[20]

Although UCC as such is not new, its increasing popularity as a means of creating and disseminating content outside of traditional channels raises a range of copyright law related issues. Not only does the production of user created content follow different paths than more conventional creative initiatives, but UCC oriented platforms and applications also enable a wide range of activities to take place with respect to UCC allowing users to mash-up, remix, and share each other's works. In most cases, the creation and use of UCC is regulated by the general norms of copyright law. In certain cases, however, the terms of a license govern the exploitation and use of user created content.

This chapter aims to highlight the main issues raised by the production and use of UCC from a European copyright law perspective. The chapter is divided in two sections: the first section focuses on the scope of copyright protection for UCC, while the second section deals with licensing issues. This brief overview will show that the European legal framework in the field of copyright law leaves a lot of uncertainties for the parties concerned. Persisting legal uncertainties may have the potential of creating an obstacle to the proper deployment of UCC in Europe. The most important source of uncertainties comes from the lack of real harmonization in the area of copyright law within the European Union.[21] Since a complete review of the *acquis communautaire* in the field of copyright would go beyond the bounds of this study, we refer the reader to two recent studies on the topic conducted by the Institute for Information Law for the European Commission.[22] Reference to provisions of national law in the pages below have exclusively an illustrative function.

2.1. Scope of copyright protection

From the dual perspective of the initial creator and the re-user of UCC, the participative character of the production and dissemination of UCC brings up particular questions concerning the applicability of the rules on copyright law. These range from the requirement of originality, to the problem of multiple ownership of rights, the exercise of exclusive rights, the applicability of limitations on rights, and the recognition of moral rights. In the pages below, each of these aspects will be examined successively in order to determine what content can be protected under copyright law, who owns the rights, and what acts are permissible with respect to the content.

However, it is worth pointing out at the outset that the harmonization efforts of the EC so far have focused on (the scope of) exclusive economic rights and not so much on the subject matter these pertain to, nor on issues of authorship, ownership or moral rights for that matter. One reason is that the harmonization of economic rights is a more pressing matter, viewed from the perspective of the internal market. Politically, Member States would also find it more difficult to agree on precise common standards for creative subject matter, authorship and ownership, given the different approaches

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[20] OECD, P*articipative Web and User-created Content Web 2.0, Wikis And Social Networking*, Paris, OECD, 2007, p. 9. And see: http://en.wikipedia.org/wiki/User-generated_content#cite_ref-1 (OECD 2007).

[21] See: P.B. Hugenholtz, M. van Eechoud, S. van Gompel et al., *Recasting of Copyright and Related Rights for the Knowledge Economy*, study prepared for the European Commission ETD/2005/IM/D1/95, Amsterdam, November 2006, online available at: http://www.ivir.nl (P.B. Hugenholtz, M.M.M. van Eechoud, N. Helberger, S.J. van Gompel et al. 2006).

[22] L. Guibault, G. Westkamp, T. Rieber-Mohn et al, *Study on the implementation and effect in Member States' laws of Directive 2001/29/EC on the harmonization of certain aspects of copyright and related rights in the information society*, report commissioned by the European Commission, ETD/2005/IM/D1/91, Amsterdam, IViR, February 2007, online available at http://www.ivir.nl ; and Hugenholtz, Eechoud, van Gompel et al. 2006.

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between copyright and *droit d'auteur* systems, and the close links between subject matter, moral rights of authors and performers, and (initial) ownership.[23]

2.1.1. Originality

A central though somewhat elusive criterion in copyright is that a production must be "original" or creative in order to attract protection. At the European level, the requirement of originality has been harmonized with respect to only three categories of works, namely computer programs, photographs, and databases.[24] For all three types of works, European copyright law demands that the work constitute the "author's own intellectual creation". This requirement represents the middle ground between the diverging notions of *droit d'auteur* and copyright proper, for what are in essence functional information products. For all other types of work, the criterion of originality is determined at the national level. The minimum amount of creative effort necessary to give rise to copyright protection is hard to define and depends on the context, as well as on the national copyright law of the Member State.[25]

As mentioned earlier, UCC refers to various kinds of media content that are produced by end-users. These include videos, photos, music, texts, drawings, cartoons, blogs, etc. The originality of each UCC product must be considered on its own and not as part of a category.[26] Not all films, texts, or photos are necessarily original. In addition, a single UCC product may benefit from copyright protection in one Member State but not in another, if the countries apply a different level of originality. And indeed, the level of originality applied across the Member States varies significantly, ranging from the low requirement of "skill and labour" applied in the United Kingdom, to the rather demanding German requirement of the "print of the author's personality that rises above average". Between these two extremes are countries like Belgium, France, and the Netherlands, where a work enjoys copyright protection if it "shows individual character and bears the personal stamp of the author".[27] The Supreme Court of the Netherlands recently confirmed this point in respect of the copyrightability of conversations, when it stated that protection is available irrespective of whether the author consciously intended to create a coherent work or not.[28]

For example, the texts on forums/blogs would most likely be seen as literary works in the United Kingdom, if they show some form of labour or skill, while they would most likely be excluded from any protection in Germany.[29] In the UK, only short, commonplace, everyday texts produced with very little effort would be excluded from copyright protection due to a lack of originality.[30]

With respect to photographs, although the criterion for protection has theoretically been harmonized to the "author's personal intellectual creation", the interpretation of what indeed constitutes an author's personal intellectual creation varies from one Member State to another. Copyright protection is granted in the UK as soon as the author has manifested some judgement at the pre-expression stage (choice of subject, light, angle). As such, numerous vacation pictures would fall under this category.[31] The criterion of originality, as applied by courts to photographs in France and Belgium, is comparable to that of the UK: a certain judgement must be present at the pre-expression stage to give rise to protection, and purely commonplace photographs or pictures that are the mere result of a technical process are devoid of originality.[32] By contrast, to be recognized as a work of photography, the German system requires that the photograph has been created personally, have a perceptible form,

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[23] Id., p. 35.

[24] Council Directive 91/250/EEC of 14 May 1991 on the legal protection of computer programs, OJ L 122/42, 17.05.1991; Directive 2006/116/EC of the European Parliament and of the Council of 12 December 2006 on the term of protection of copyright and certain related rights (codified version) OJ L 372, 27.12.2006, p. 12–18; Directive 96/9/EC of the European Parliament and of the Council of 11 March 1996 on the legal protection of databases, OJ L 77/20, 27.03.1996.

[25] P.B. Hugenholtz, M.M.M. van Eechoud, N. Helberger, S.J. van Gompel et al. 2006, p. 42.

[26] A. Lucas and H.J. Lucas, *Traité de propriété littéraire et artistique*, Paris, Litec, 2001, p. 120.

[27] Tribunal de commerce de Nanterre 2ème chambre 7 September 2007, online available at http://www.legalis.net/

[28] HR, 30 May 2008 (*Endstra v. Uitgeverij Nieuw Amsterdam et al.*), No. LJN: BC2153.

[29] GRUR –RR-2002, 313, 314.

[30] *Walter v Lane* [1900] A.C. 539 (HL).

[31] *Antiquesportfolio.com v. Rodney Fitch & co* [2001] FSR 345; [2001] ECDR 51.

[32] TGI Nanterre, 18 mai 1994 : Gaz. Pal. 1997, somm/ p. 506 ; Civ. Bruxells (71ᵉ ch. 20 april 2006, A&M 2007-4, 356.

possess individuality and reach the necessary level of creation.[33] German courts exclude any kind of protection for private photographs (including vacation pictures), unless they show a level of originality that rises above average.[34] However, like a number of other Member States, Germany grants a neighbouring on all non-original photographs.[35] This neighbouring right has no prerequisite for protection, as long as at least some personal achievement has been made: photographs which only reproduce other photographs or photocopies are not subject to protection. In other words, the vast majority of photos found on Flickr would probably benefit from protection in the Member States, either under the copyright or the neighbouring rights regime.

As regards film works, the criterion of originality applied in this case generally follows the lines of other types of works or other subject matter. The UK Copyright, Designs and Patent Act grants a neighbouring right-type of protection to films, including small film sequences on YouTube even if they are devoid of any originality. Comparable protection, in the form of a neighbouring right, is granted to film producers in other countries of the European Union pursuant to the Rental and Lending Directive.[36] To benefit from copyright protection in other countries than the UK, like France, Belgium, a cinematographic work must be original in the sense that it is the author's personal intellectual creation, and in the Netherlands that it shows individual character and bears the personal stamp of the author. A vast amount of videos found on YouTube, Dailymotion, MyVideo, or Mobango would most likely meet this criterion, while more trivial footage of persons, pets or events would probably not.

The same rule applies to the different elements of a film or a TV program. However, while original TV programs benefit from copyright protection, TV formats and characters only benefit from protection if they are both sufficiently worked out to constitute more than mere ideas and if they are original.[37] Consequently, the avatars created as part of a virtual world like HabboHotel or Second Life could be protected by copyright law, if the expression goes beyond the standard or trivial pre-programmed characters and bears the author's individual intellectual creation.[38]

In summary, not all UCC benefit from copyright protection in every country of the European Union. Only original works deserve copyright protection. The concept of originality is, however, not harmonized across the EU. As a result, Member States apply different levels of originality, ranging from the "skill and labour" in the UK to the "print of the author's personality that rises above average" in Germany.

Consequently, it is fair to say that a single item of user created content may benefit from protection in one Member State, but not necessarily in another. In any case, simple blog texts, amateur photos, home movies and videos may not receive any copyright protection in some Member States due to a lack of originality.

2.1.2. Authorship/Ownership

Projects, like the numerous wikis, or platforms like YouTube, MyVideo, Mobango, involve thousands of different authors who put their contribution up on the sites. Who owns the rights on such works? Although the authorship of cinematographic works has been harmonized at the European level, the rules of ownership of the rights on such works still vary substantially from one country to the next.[39]

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[33] A. Nordemann, 'Germany', in Y. Gendreau, A. Nordemann, and R. Oesch, *Copyright and Photographs – An International Survey*, The Hague, Kluwer Law International, 1999, pp. 135-160, p. 137.

[34] Regional Appeal Court Hamburg, 5 November 1998, No. 3 U 175/98 (*Wagner Familien foto*), published in *GRUR* 1999, 717.

[35] See German Copyright Act, Art. 72.

[36] Directive 2006/115/EC of the European Parliament and of the Council of 12 December 2006 on rental right and lending right and on certain rights related to copyright in the field of intellectual property (codified version), *OJ L 376, 27.12.2006, p. 28–35*.

[37] U. Klement, 'Protecting Television Show Formats under Copyright Law: New Developments in Common Law and Civil Law Countries', in: *European Intellectual Property Review*; vol. 29 (2007), afl. 2, pag. 52-60 (9); in Germany: BGH, I ZR 176-01 - "Show Format", IIC, vol. 35 (2004), afl. 8, pag. 987-988; J.F. Haeck, *Idee en programmaformule in het auteursrecht*, Kluwer, Deventer, 1998.

[38] See: LG Köln, 21.04.2008, 28 O 124/08, Medien Internet und Recht 07/2008, where the District Court of Cologne refused to recognise copyright protection for a virtual display of the city of Cologne and its cathedral in Second Life.

[39] *Report from the Commission to the Council, the European Parliament and the Economic and Social Committee on the question of authorship of cinematographic or audiovisual works in the Community, Brussels*, COM/2002/0691 final.

The rules on ownership of rights are not harmonized at the European level. In principle, the initial owner of copyright in a work is the natural person who created it. However, there are a number of circumstances where the basic rule does not apply. This is the case, for example, of pseudonymous or anonymous works, of works made by multiple authors or in the course of employment. National legislation and case law follow similar lines regarding the issue of multiple authorship. In practice, the rules vary if the work is to be qualified as a "collaborative work" or a "collective work".

The qualification of a work as a "collaborative work" or as a "collective work" bears great importance for it also determines who may be considered the owner of the rights on the work. A "collaborative work" can be defined as a work in the creation of which more than one natural person has participated.[40] In the case of a "collaborative work" with distinguishable contributions[41], each author enjoys a separate right with respect to his own contribution, which he can exercise apart from the others. When a collaborative work is composed of different forms of expression (text/illustration, text/music and music/film), the individual contributions will generally be regarded as separable.[42] In case of doubt, the separability of the different authors' contributions is a question of fact that must be decided on a case-by-case basis. By contrast, in the case of combined contributions, where the work is the result of such close cooperation between authors that the individual contributions cannot be separated from one another, all authors enjoy the rights on the work in joint ownership, which must be exercised with the consent of every author.[43] In practice, it is difficult to know if individual contributions posted on a platform are the fruit of collaborative effort or not, since the credits to each work are not always given in full. It is safe to assume that some works are the result of cooperation between multiple authors (like music or films made available on YouTube or Dailymotion) while others are created by individual authors. It is a question of fact to determine whether a single work posted on a UCC platform constitutes a collaborative work or not, and if so, whether the contributions are separable or not. The determination of the character of each contribution as a separable collaborative work will then determine whether the individual authors may exploit their work separately or not.

A work can be qualified as a "collective work" for example, if several elements created by different authors are brought together and combined by another person who, without prejudice to the rights of the individual authors, is then deemed the author of the whole work. Typical examples of "collective works" are newspapers, periodicals, and encyclopaedia.[44] The rule of ownership pertaining to collective works is also rather clear and consistent throughout the countries of the European Union. For example, article L. 133-2 second paragraph of the French CPI defines a "collective work" as "a work created at the initiative of a natural or legal person who edits it, publishes it and discloses it under his direction and name and in which the personal contributions of the various authors who participated in its production are merged in the overall work for which they were conceived, without it being possible to attribute to each author a separate right in the work as created". The ownership of rights on such a collective work is determined by L. 113-5 French CPI which provides that "a collective work shall be the property, unless proved otherwise, of the natural or legal person under whose name it has been disclosed. The author"s rights shall vest in such person". The same rule has been recognized in most other European countries either in the law or the jurisprudence.

Does the content on platforms like Wikipedia, Wikinews, YouTube, Flickr, Mobango, Dailymotion, or Myvideo qualify as "collaborative works" or as "collective works" in the sense of the copyright act? In our opinion, the platforms would hardly qualify as a collaborative work, primarily because there generally would seem to be no common intention among the multiple authors to create a joint work. The platforms would most probably not qualify as a collective work either, because the platform operators do not follow any creative editorial policy or exercise any control over the individual contributions that would be comparable to that of a conventional newspaper or encyclopaedia. As a result, each author is therefore free to reproduce and communicate his work without the need to obtain the consent of other authors.

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[40] French CPI, art. 113-2 first paragraph.

[41] See HR 25 March 1949, *NJ* 1950No. 643 with annotation by D.J. G. Visser (*La belle et la bête*).

[42] In the Netherlands: Hof 's-Hertogenbosch, 27 December 1994, *NJ* 1995No. 623 (*Rooijakkers/Wouters*), with annotation by D.W.V. Verkade; in France: art. L. 133-3 CPI;

[43] Belgium Act of 1994, art. 5; French CPI, art. L 113-2; Copyright, Designs and Patents Act of the UK, art. 10(1).

[44] Tribunal de grande instance de Paris, 3e chambre, 7 November 2007; N. Cazeau, 'Le titulaire des droits d'exploitation sur une œuvre collective peut-il librement la faire évoluer?', *Revue Lamy Droit de l'immatériel*, 2008-34, pp. 9-12 ; J.H. Spoor, F.D.W. Verkade and D.J.G. Visser, *Auteursrecht*, Deventer, Kluwer, 2005, p. 35.

Since UCC is partly characterized by semi-professional initiatives, it is not excluded that some works are created in the course of employment. The rules regarding the ownership of rights on works created under employment vary significantly across the European Union. The law of countries like the UK, Ireland and the Netherlands expressly provide that the employer is the first owner of any copyright in a work made by an employee in the course of his employment, subject to any agreement to the contrary.[45] In other countries, the primary rule according to which the initial owner of copyright in a work is the natural person who created it continues to apply, even if in some countries the employer has been deemed, through case law or a statutory rule, to benefit from an "implied" license of exploitation.

In sum, the rules of ownership of rights on works created by multiple authors vary depending on whether such works are to be qualified as a "collective work" or as a "collaborative work".

In the first case, the person who brings the contributions together to form a whole would be deemed the owner of the rights on the collective work.

In the second case, the authors would be joint owners of the rights on the collaborative work. Whether the individual contributors to the collaborative work are able to exercise their rights on their own contribution without the consent of the co-authors depends on whether each contribution is separable from the whole or not.

In case of works made in the course of employment, in countries where the law does not expressly recognise the employer as the right owner, the natural person who created the work remains the owner of the rights on the work.

All this, of course, holds true only in the absence of an agreement to the contrary.

2.1.3.   Exploitation rights

Provided that their works meet the requirement of originality, authors of UCC enjoy broad exclusive rights pursuant to European copyright law which allow them to authorise or prohibit certain uses of their work.[46] The implementation of articles 2 to 4 of the Information Society Directive has led to a convincing degree of harmonization of exclusive rights. All Member States grant the exclusive rights foreseen under the Directive to the beneficiaries mentioned therein, including authors, performers, phonogram, and film producers and broadcasting organizations, who all benefit from the same level of protection for their works or other subject matter.

Article 2 of the Directive sets out a very broad, comprehensive definition of the reproduction right covering all acts of reproduction whether on-line or off-line, in material or immaterial form, temporary or permanent. The right of reproduction covers virtually any use of a work or other subject matter, even where similar acts of use in the analogue world (such as receiving a television signal or reading a book) would fall well outside the scope of what intellectual property aims to protect.[47] The newly introduced right of making available essentially covers all kinds of online interactive offerings. The second part of Article 3(1) of the Information Society Directive on the communication rights of authors, clarifies that the right of "communication to the public" includes the making available to the public of works, by wire or wireless means, in such a way that members of the public may access these works from a place and at a time individually chosen by them. One of the main objectives of the provision is to make it clear that this right covers interactive "on-demand" services. It aims to ensure legal certainty by confirming that the communication to the public right is also relevant when several unrelated

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[45] CDPA, art. 11(2);

[46] OECD 2007, 2007, p. 78.

[47] See M. Hart, 'The Copyright in the information society directive; an overview', *EIPR* 2002, p. 58-64, J. Spoor, 'The copyright approach to copying on the internet: (over)stretching the reproduction right?', in P.B. Hugenholtz (ed.), *The Future of Copyright in a Digital Environment*, Kluwer Law International, The Hague, 1996, p. 67-79.

persons (members of the public) may have individual access, from different places and at different times, to a work which is on a publicly accessible location, e.g. through open or private network.[48]

Besides the right of reproduction and the right of making available, the laws of the Member States generally recognize that any arrangement, adaptation, or modification of an existing work is subject to the prior authorisation of the rightholder.[49] However, the right to authorize the making of arrangements, adaptations, and modifications to an existing work, otherwise called "derivative works", is harmonized only for computer software and databases. For other categories of works, most national copyright acts do grant authors a right of adaptation, the scope of which can vary from one Member State to another. On the basis of the author's exclusive rights, makers of UCC can prevent others from making modifications, mash-ups, and remixes of their works, and from making an original or a derivative work available to the public. This can have significant consequences for social networked communities that are characterized by the remix, mash-up, and sharing activities of their members. Unless they are covered by a limitation on copyright or by a contractual agreement, such acts would amount to an infringement of copyright.

In this respect, the notice in Dailymotion's Terms of Use are worth pointing out:

"Dailymotion is not licensed to make derivative works from Your Content. Users are not licensed to make derivative works from Your Content of other users. Users should ask other users permission. Users are not allowed to make derivative works from Dailymotion Content".

A comparable notice is also included on in the Terms of Use of Flickr and MySpace.

In sum, makers of original UCC enjoy three broad exclusive rights with respect to the exploitation of their works in the digital environment: the right of reproduction, the right of making a work available to the public and the right of adaptation. These rights confer on authors of original works the power to authorise or prohibit the reproduction and making available of their works, as well as the right to make adaptations, translations and derivative works.

2.1.4. Moral rights

In addition to the prerogatives known as exploitation rights, authors enjoy under the copyright regime a number of prerogatives – known as moral rights – that derive from their personality rights. Moral rights are not harmonized across the European Union, although a comparison of the national laws makes it clear that moral rights for authors are recognized in all countries, even if the level of protection is lower in some countries, for instance in the UK and Ireland.[50] Moral rights are inalienable, in the sense that they remain with the author even after he has assigned his exploitation rights to another person. In some countries of the European Union, like in the UK, Ireland and the Netherlands, certain attributes of the moral rights may be the object of a waiver. In most Member States, moral rights last for the duration of the protection on the work, that is, for the life of the author plus seventy years after his death.

Depending upon the national legislation, the author's moral rights may encompass some or all of the following attributes:

1) The right to decide if and when to disclose his work to the public (*right of first publication or droit de divulgation*);

2) The right to oppose the divulgation of the work without his name or to oppose the publication of the work under a name other than his own (*right of paternity*);

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[48] L. Guibault, G. Westkamp, T. Rieber-Mohn et al, *Study on the implementation and effect in Member States' laws of Directive 2001/29/EC on the harmonization of certain aspects of copyright and related rights in the information society*, report commissioned by the European Commission, ETD/2005/IM/D1/91, Amsterdam, IViR, February 2007, online available at http://www.ivir.nl (L. Guibault, G. Westkamp, T. Rieber-Mohn et al, 2007), p. 22.

[49] N. Van Lingen, *Auteursrecht in Hoofdlijnen*, 5th ed., Alphen aan den Rijn, Samsom, 2002, p. 77.

[50] M. Salokannel and A. Strowel, with the collaboration of E. Derclaye, *Moral rights in the context of the exploitation of works through digital technology*, report commissioned by the European Commission, ETD/99/B5-3000/E/28, April 2000, p. 225.

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3) The right to oppose any distortion, mutilation, or other impairment of the work that could be prejudicial to his name or reputation (*right of integrity*); and

4) The right to withdraw a work from circulation in case the author changes conviction (*right of withdrawal*).

In the context of UCC, the most relevant attributes of the moral rights are the right of paternity and the right of integrity. On the basis of the right of paternity, the maker of an original work identified as UCC can object to the making available of his work online without the proper mention of his name. The exercise of the right of integrity may constitute a limit on the possibility for makers of UCC to modify, adapt, mash-up or remix a pre-existing work, since they must ensure that such adaptations do not violate the original author's right of integrity in a way that prejudices the author's name or reputation.[51]

In sum, the two attributes of the author's moral rights that are most relevant in the context of UCC are: the right of paternity and the right of integrity. Makers of UCC must ensure that, when making an author's work available to the public, it makes proper mention of the author's name and that the modification, adaptation, mash-up or remix of a pre-existing work does not violate the original author's right of integrity.

2.1.5.   Exceptions and limitations

Limitations on copyrights are an integral part of the copyright system, for they are the recognition in positive law of the users' legitimate interests in making certain unauthorized uses of copyrighted material.[52] Such legitimate interests may include the protection of the users' fundamental rights, the promotion of free flow of information and the dissemination of knowledge. The most commonly found limitations on copyright in national legislation relate to private copying, quotations, parody, public speeches, and news reporting, as well as to the limitations to the benefit of educational institutions, libraries, and disabled persons. The most debated question in the context of user created content is whether the general rules pertaining to limitations on copyright apply to the making of mash-ups, remixes, and derivate works by users.

The call for the adoption of an exception for "creative, transformative, or derivate works" can be heard in different circles. In 2006, the British Gowers Review referred in this context to the fair use exception in the United States of America, which allows "transformative works". The purpose of this exception is to enable creators to rework material for a new purpose or with a new meaning. Such new works can create new value, and can even create new markets. Transforming works can create huge value and spur on innovation. Under the current European copyright regime, these creators would need to clear permission and negotiate licences to avoid infringement suits. At present, it would not be possible, without amending the Information Society Directive, to create a copyright exception for transformative use, as it is not one of the exceptions listed as permitted under the Directive.

New solutions that would favor the making of transformative or derivative works might prove necessary and beneficial. At present, however, there is still considerable uncertainty of how this objective should be best achieved.

First, systematically, this question seems to derive from a misunderstanding of the legal structure of the Information Society Directive. The Information Society Directive does not harmonize a right of adaptation, nor does its catalogue of permitted exceptions relate thereto. In other words, insofar as an exception would allow certain transformative uses, it would have no place in a revised Information Society Directive, unless the Directive's scope would be broadened to include a right of adaptation. Absent harmonization of the adaptation right, Member States remain autonomous and may elect to codify exceptions or limitations to this right to permit certain non-commercial transformative uses.

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[51] A. Granchet, 'Les amateurs – Création et partage de contenus sur Internet: Nouveaux défis juridiques', *Légipresse* No. 246, November 2007, p. 152.
[52] L.M.C.R. Guibault, *Copyright Limitations and Contracts*, The Hague, Kluwer Law International, 2002, p. 109.

Second, at this time, the introduction of a new exception for "creative, transformative, or derivate works" would require more investigation. There is yet too much ambiguity as regards the definition and scope of such a new exception. It is uncertain, for example, who should be its beneficiaries (e.g. the individual or also the institutional user?), whether and how these beneficiaries could be legally defined (e.g. how could the distinction between individuals and institutions be made in practice?) and what type of acts it would cover (e.g. would the already frequently occurring acts of incorporating third party music files in amateur videos also be deemed "transformative"?). Furthermore, it is not quite clear how a new exception for "creative, transformative, or derivate works" would relate to existing limitations, such as quotations, incidental use, and parodies, which to a certain degree already permit the creation of new or derivative works. Moreover, it should be noted that the European copyright system is unfamiliar with the term "transformative" use, which is borrowed from the American system. Rules of interpretation would probably be needed. More research and consultations are necessary in order to identify the specific needs of makers of user created content and to investigate whether other solutions would not be more effective to preserve the balance of interests and the integrity of the copyright system. The on-going consultations on the European Green Paper on Copyright in the Knowledge Economy may provide valuable insight on the issue and may pave the way to a new solution.[53]

However, even if the rules were made more precise at the European level, there is no guarantee that this would lead to a greater harmonization of the rules across the Member States. One of the goals of the Information Society Directive was to harmonize the limitations and exceptions on copyright throughout the Member States. However, as demonstrated in the aforementioned two IViR Studies commissioned by the European Commission, in view of the optional character of the list of limitations contained in articles 5(2) to 5(5) of the Directive, the harmonizing effect is very modest at best. [54] In practice, not only are Member States free to implement the limitations they want from the list, but they are also free to decide how they will implement each limitation. As a result, not only have the limitations in the Directive not been systematically implemented throughout the European Union, but when they have been transposed their scope and conditions of application vary considerably from one Member State to the next. In some Member States' laws, the limitations on copyright have received a much narrower scope than those of the Information Society Directive. This can be explained by the "homing" tendency of the Member States' legislatures when translating provisions of the Directive into national law, preserving as much as possible the old formulations and adding further specifications. Moreover, even where a specific limitation has been implemented in roughly similar terms in the different Member States, there is a risk that the national courts will give this limitation a diverging interpretation, thereby contributing to the legal uncertainty in respect of the use of copyright protected works and other subject matter.[55]

At this time, users of UCC platforms are often incapable of assessing with any kind of certainty whether the acts accomplished with respect to copyright protected works fall within the scope of a limitation on copyright or not.

In sum, there exists in European copyright law a mosaic of exceptions and limitations that vary from Member State to Member State. These include the right to make private copies, quotations, parody, public speeches, and news reporting, as well as the limitations to the benefit of educational institutions, libraries, and disabled persons. The assessment of the boundary between infringing and non-infringing conduct, remains highly uncertain and unpredictable. This variety of applicable but potentially diverging limitations may seriously impede the creative activities of users.

New solutions that would favor the making of transformative or derivative works might prove necessary and beneficial. At present, however, there is still considerable uncertainty of how this objective should be best achieved. The on-going consultations on the European Green Paper on Copyright in the Knowledge Economy may provide valuable insight on the issue and may pave the way to a new solution.

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[53] European Commission, Green Paper on Copyright in the Knowledge Economy, Brussels, 16 July 2008, COM(2008) 466/3, p. 19.
[54] L. Guibault, G. Westkamp, T. Rieber-Mohn et al., Study on the implementation and effect in Member States' laws of Directive 2001/29/EC on the harmonization of certain aspects of copyright and related rights in the information society, report commissioned by the European Commission, ETD/2005/IM/D1/91, Amsterdam, IViR, February 2007, p. 64.
[55] See L. Guibault, G. Westkamp, T. Rieber-Mohn et al. *2007,* p. 64.

2.2. Licensing issues

A constellation of three possible contractual relations may come into play in the production and dissemination of UCC: i) between the platform owner and its users; ii) between users themselves; and iii) with respect to the use of third party content. As will be discussed in further detail below, the relationship between the platform and the user/creator concerning the use of their respective content is commonly governed either by a set of guidelines or policies put up on the platform's website, or by a more formal "Terms of Use" (ToU) agreement. In the relation between users themselves, the practice of licensing the content produced is not fully developed yet. Where such a practice has indeed developed, a strong preference can be observed for alternative flexible licensing schemes, like the Creative Commons licenses and the GNU Free Documentation License. These licensing schemes are specifically intended to allow users to distribute, reproduce and build upon each other's work. The issue of third party content does not seem to be very well covered at this stage and may need some practical adjustment.

It is important to note at the outset that the constellation of three possible contractual relations presented here undeniably raise international private law issues, in cases where the two, or more, contract partners are not located in the same country. In such circumstances, it can prove difficult to determine which law applies to a contract and which court should be declared competent to adjudicate in a dispute arising from the contract. Problems associated with multi-territorial licensing are not specific to user created content, however. For this reason, we will not discuss this issue further, but refer the reader to the general literature on the conflict of laws and choice of jurisdiction.[56]

2.2.1. Contractual relationship between the platform owner and its users

The respective rights and obligations of the platform operator and the contributing users with respect to the use of content made available by, or through, a UCC platform must be determined in order to avoid future copyright related claims by either one of the parties. Guidelines, policy documents, or terms of use published on the platforms' websites are therefore meant to specify the extent to which users may use the content made available by the platform operators, as well as to regulate the upload and (re)use of copyrighted content created by the users. According to most ToU's, users obtain at least a personal, non-transferable, non-exclusive license to use the software and other content provided by the platform operator, but not to reproduce or make such content available to others. In most cases, users expressly retain the copyright in their own work, but will be required to grant a non-exclusive license to the platform allowing the reproduction, communication to the public, adaptation and translation of the user's content. Such reciprocal licenses between the platform operator and the user are generally without payment, but this corresponds to the amateur and sharing goals of UCC communities. [57] The Mobango ToU provides for example that:

"The User agrees that all Content he/she publishes to the Public areas of Mobango are provided for a free, perpetual, irrevocable, non-exclusive, and freely sub-licensable license to use, reproduce, modify, adapt, publish, translate, to create derived works, distribute, and visualize (partially or wholly) in the whole World and/or to incorporate this Content in any form, media or technology currently known or to be developed in the future. Mobango grants the User a personal license, non transferable and non exclusive for the use of the Software on a single Computer. The User shall not copy, modify, create derivative works, and in any way try to discover the Source codes of the Software, sell, sub-license, or transfer to 3rd parties any right on the Software".

The ToU published by MySpace are roughly to the same effect as Mobango's. The ToU put up by Flickr contain an extra clause according to which the user "grants Yahoo (that is all companies part of the Yahoo group) a worldwide non-exclusive and royalty-free right to reproduce, publish, diffuse his Content for

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[56] See: M. van Eechoud, *Choice of Law in Copyright and Related Rights. Alternatives to the Lex Protectionis,* The Hague [etc.]: Kluwer Law International 2003, 289 p.; A. Kur., 'Principle Governing Jurisdiction, Choice of Law and Judgments in Transnational Disputes: A European Perspective', *Computer Law Review International*, 2003/3, pp. 65-72.
[57] OECD 2007, p. 84.

the purpose of providing the Service, for its promotion and distribution, through every electronic communication media or technology, on the websites of the Yahoo Group and on the websites of affiliated and third parties" (emphasis added).

On the Dailymotion platform, users have the possibility to upload content that may acquire the status of "Creative Content" after selection by the Dailymotion service. In this case, the ToU of Dailymotion specifies that:

"In order to ensure maximum exposure of your video, the aforementioned license is granted for any present or future medium including hard copy or on computer, digital or online media, or by radio, cable or satellite transmission, in any format, graphic form or environment, and in any language. The said license is granted free of charge, for the maximum term of copyright protection, for the entire world and for any direct or indirect use or exploitation, whether commercial, informational or otherwise. You agree that we will be entitled to grant or afford our partners some or all of the same rights as those specified above".

The licenses granted to the platform are undeniably very broad. However, since they are non-exclusive, they probably do not unreasonably prejudice the interests of the creators, since they do not prevent the author from signing a more favourable exploitation agreement with another party.

In rare cases, the platform owner may even go so far as to require a complete transfer of rights from the users with respect to the content they upload. This was the case of Skoeps, the Dutch news website where everyone could post his news photos or films, before the service was discontinued. The user transferred explicitly, unconditionally and irrevocably all intellectual property rights of any kind of material (text, photo, moving image) that he submitted to Skoeps. The user explicitly acknowledged that this transfer contained the right of Skoeps to exploit and to license without any restraints the material in all current and future exploitation forms, in every possible medium and throughout the world and to mention on the material "© SKOEPS". The user acknowledged explicitly that because of this transfer he no longer had the right to copy/reproduce and publish the material without Skoeps' permission, unless it was for his own and personal use. The transfer did not oblige Skoeps to actually exploit or publish the material. The user further waived any moral right or right to remuneration in relation to the material, as long as permitted by law. This waiver included the right of Skoeps to adapt the material in any way it pleased. In return, the user was entitled to a share of 50/50 in the revenues generated by the sale of the news item to ANP or any other media. It is interesting to note that the American version of the HabboHotel website also purports to operate a very broad transfer of rights in favour of the platform. The European versions of the license make, however, no mention of such a transfer of rights.

The question arises as to whether such a broad transfer of rights would comply with the national rules on author's contract law. Exploitation contracts have so far never been subject to overall harmonization within the Community.[58] The European legislator has until now refrained from intervening on the issue of transfers of rights and of contractual agreements between authors and producers, because contractual and civil matters have traditionally fallen under the exclusive competence of the Member States.[59] Member States have until now enjoyed the freedom to adopt under their own national legal systems protective measures to the benefit of authors or performing artists regarding either the scope of transfer of rights or the formation, execution, and interpretation of contracts concluded with broadcasters, publishers and other producers. Such measures would be applicable against UCC platform operators, insofar as they require a transfer of rights from the users. Protective measures range from the default rules applicable to publishing contracts, such as those codified in the early 20th century in Germany, to the imperative rules found in France, Belgium and other countries of the *droit d'auteur* tradition. These provisions can be divided into several distinct categories: rules on ownership of rights, forms of transfer (i.e. assignment, license, and waiver), rules governing formalities, restrictions on transfers, rules regarding remuneration, rules of interpretation

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[58] Commission of the European Communities, *Communication from the Commission to the Council and the European Parliament on European Contract Law*, Brussels, 11 July 2001, COM(2001) 398 final, Annex 1, p. 38.
[59] Von Lewinski (1996), 'Vertragsrecht', in G. Schricker, E.-M. Bastian and A. Dietz, *Konturen eines europäischen Urheberrechts*, Baden-Baden, Nomos Verlag, pp. 49-57, at p. 49.

(scope) of contracts, rules governing the effect of transfer in relation to third parties, and rules on termination of contracts.[60]

Whether a full transfer of rights like the one formerly required by Skoeps or by the American version of HabboHotel would comply with the imperative rules laid down in the national law of several Member States remains to be seen. More specifically, whether a clause included in a ToU presented on a website would be sufficient to meet the formality rule found in several copyright acts is still unclear at this point.

In sum, the vast majority of reciprocal non-exclusive licenses between the platform operator and the user correspond to the amateur and sharing goals of UCC communities. However, whenever a UCC platform requires a complete transfer of rights from the creator of the content, such transfer must comply in form and scope with the imperative rules laid down in the national law of several Member States. One must bear in mind that a clause included in a ToU presented on a website may not be sufficient to meet the formality rule found in several national copyright acts.

2.2.2. In contractual relations between users

Even if the contractual relationship between the platform owner and the creator is well defined, other users are in principle not authorized to use the original works uploaded onto a UCC platform, unless a limitation on copyright applies. If these other users want to go beyond the bounds of the limitations on copyright and do more with a work than what the law permits, they need to obtain a license from the creator or the platform. A license from the author is necessary for the re-use, remix, mash-up, and communication to the public of the content provided on the UCC platform. As mentioned before, this relationship is not always very well regulated. In some cases, the ToU put up by the platform purports to regulate the relationship between users, while in other cases the creators take the initiative of licensing their content directly to the public. Creators mostly take advantage of open content licensing schemes, such as Creative Commons licenses and the GNU Free Documentation License.

Relationship regulated through the UCC platform owner

Some UCC platforms purport to regulate inside their Terms of Use the relationship between the makers of content uploaded on their website and the general public. The differences in approach between the platform owners, regarding the extent to which other users may make use of the content posted, are significant. These range from an outright prohibition on users to reproduce or communicate the content to a world wide, non-exclusive license to reproduce and communicate. According to the ToU of Myvideo, the user is permitted to use the services in conformity with the legal provisions and the provisions of these general conditions, as well as to store, to make available to the public, to transmit and to share Contents with other users. MYVIDEO does not monitor the use or claim any property right on the Contents, and will therefore make no modification to it. The terms of use also specify that "no content may be stored, made available to the public or transmitted, so as to violate the rights of other parties, in particular patents, trademarks, copyrights, trade secrets, personality or property rights".

The ToU of Dailymotion state that "for the entire period in which Your Content is hosted and strictly by means of the features that enable the Website to be accessed via the Internet or through other electronic communication media or technology, a user licenses Dailymotion to reproduce/display Your Content and, as necessary, adjust its format for that purpose. By making Your Content accessible to other users, a user licenses any user of the Website free of charge and for personal use only, to view and transmit Your Content on or through the Website, on other electronic communication media or technology (e.g. mobile phones), for the entire period in which Your Content is hosted on the Website. Users may access other users' content solely

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[60] L. Guibault, P.B. Hugenholtz, with collaboration of M. Berghuis and M. Vermunt, *Conditions Applicable to Contracts Relating to Intellectual Property,* report commissioned by the European Commission, ETD/2000/B5-3001/E/69, Amsterdam, IViR, 2002.

1) for their information and personal use,

2) as intended through the normal functionality of the Website and

3) for Streaming. Accessing user's content for any purpose or in any manner other than Streaming is expressly prohibited. If a user wishes to use another user's content for any other purpose, in particular for commercial use, he is solely responsible for obtaining the necessary advance authorization.

At the other extreme are Mobango's terms of use according to which "the User agrees that all Content he/she publishes to the Public areas of Mobango are provided for a free, perpetual, irrevocable, non-exclusive, and freely sub-licensable license to use, reproduce, modify, adapt, publish, translate, to create derived works, distribute, and visualize (partially or wholly) in the whole World and/or to incorporate this Content in any form, media or technology currently known or to be developed in the future".

One question that arises in this context is whether the creator of original UCC could, in addition to the ToU put up by the platform and license their works under different terms. For example, would a creator of content posted on Dailymotion be allowed to communicate his video on that platform under a world wide, free, perpetual, irrevocable, non-exclusive, and freely sub-licensable license to use, reproduce, modify, adapt, and distribute the content instead of the more restrictive general conditions applied by Dailymotion? Would it be possible to affix a Creative Commons license to a video distributed on Dailymotion? Since the creator retains all rights on his contribution, and since the general terms grant users a non-exclusive license to use the content for personal use, nothing prevents the creator from licensing his work under a more permissive non-exclusive license, including under a Creative Commons license.

Open content licenses

In the relations between users, the most widely used open content licenses are the Creative Commons licenses. Creative Commons is a non-profit organization first established in 2001 in the United States, dedicated to the expansion of the number of copyrighted creative works available for others to legally build upon and share. The Creative Commons movement rests on the idea that not all copyright-holders will wish to exercise the full range of rights afforded to them by law: between *all rights reserved* and *no rights reserved* Creative Commons distinguishes a whole spectrum of possibilities under the catchphrase of *some rights reserved.* To this end, Creative Commons has developed a set of licenses intended to provide creators and licensors with a simple tool to help them indicate what particular rights they wish their works to carry, thus also addressing the uncertainty of prospective users as to what they can and cannot lawfully do with content.

The Creative Commons licenses are granted on a non-discriminatory and non-exclusive, royalty-free, perpetual (for the duration of the intellectual property right) and irrevocable basis for world wide use. Although they can be applied to works in all media, including print, nevertheless they are web-based licenses, i.e. specifically designed with the use of works on the Internet in mind.[61] All Creative Commons licenses permit the user a set of Baseline Rights, that is to say the right to copy the work, distribute it, display or perform the work publicly, make digital public performances of the work (e.g. through webcasting) and shift the work into another format as a verbatim copy. All Creative Commons licenses also require the user to obtain permission before using the work in anyway other than authorized under the license or by law, to keep the copyright notice intact in all copies, to link to the license from copies, to not alter the terms of the license and to refrain from using technical measures that restrict other licensees lawful use of the work.[62]

Creative Commons licenses come into effect upon use of the work and are terminated automatically when any of the terms of the license are breached by the licensee. Nevertheless, even in this case, the rights of licensees of adaptation or collections of works further down the line are not affected. The licensor reserves the right to release the work under different license terms or stop distributing the work at any time, although, again, this does not result in withdrawal of licenses granted up to that

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[61] M van Eechoud and B van der Wal, 'Creative commons licensing for public sector information – Opportunities and pitfalls' http://www.ivir.nl/publications/eechoud/CC_PublicSectorInformation_report_v3.pdf accessed 10 May 2008.
[62] Creative Commons, 'Baseline Rights' http://wiki.creativecommons.org/Baseline_Rights accessed 20 May 2008.

point. These standard terms can be supplemented by a set of specific conditions that licensors can select and apply to their work:

- **Attribution**: Licensees may copy, distribute, display, and perform the copyrighted work (even commercially and including derivative works based upon it), but only if they credit the author in the manner requested.

- **Non-commercial**: Licensees may copy, distribute, display, and perform the copyrighted work — and derivative works based upon it — but for non-commercial purposes only.

- **No Derivative Works**: Licensees may copy, distribute, display, and perform only verbatim copies of the copyrighted work, not derivative works based upon it.

- **Share Alike**: If a licensee does create a derivative work, she/he must make it available under the same CC license as the one applied to the original work.[63]

Mixing and matching these requirements, leads to six basic Creative Commons licenses. In addition to these standard licenses, Creative Commons also offers licensors the option of certifying that the work is no longer copyright protected, e.g. because the term of protection has expired or because the copyright holder has chosen to waive all rights and dedicate the work to the Public Domain[64]. The Public Domain Dedication will likely be replaced by an improved protocol named CC0 in the near future. Finally, in order to facilitate international coverage, CC licenses are systematically being "ported" into national jurisdictions around the world under the supervision of Creative Commons International (CCi). The porting process involves the translation of the commons deed and the legal code and their adaptation to national legislative particularities[65].

In 2006, a Dutch court did confirm that the terms of a CC license do automatically apply to content licensed under it. The case concerned the reproduction by the Dutch tabloid "Weekend" of photos uploaded onto Flickr under the terms of CC-BY-NC-SA by former MTV VJ and podcaster Adam Curry and depicting his family. When sued for copyright and privacy infringements, the newspaper argued that it had been misled by the attachment of the notice "this photo is public" (a standard feature of all Flickr images accessible by the public at large) and that the link to the license was not obvious. This argumentation was rejected by the District Court of Amsterdam, under the reasoning that the publisher, Audax, should have carried out due diligence before publishing photos found on the Internet and, in case of doubt, should have requested authorization from the copyright holder.[66] Curry's claim for damages for past use was denied, however Audax was ordered to refrain from further publication of the photos.[67] The case is of significance, as it makes clear that the conditions of a CC license bind even users who have not expressly agreed to or have knowledge of those conditions.

Creative Commons took inspiration in part from the Open Source movement and more specifically from the Free Software Foundation's GNU General Public License (GNU GPL) – unlike GNU GPL, however, it is intended not for software, but all other kinds of creative works.[68] In 2000, the Free Software Foundation developed the GNU Free Documentation License (GFDL), as part of the GNU project. This was initially designed for software documentation, but has also been used broadly for non-related text-based works regardless of subject matter, most notably by Wikipedia. The current version of the GFDL is version 1.2 [69], while a discussion draft on version 2 has also been released[70]. A draft of the new GNU Simpler Free Documentation License was released at the same time[71].

In common with the CC license, the GNFL also grants a license on a non-discriminatory and non-exclusive, royalty-free, unlimited in duration and irrevocable basis for world wide use. The licensee is permitted to copy, redistribute the work and publicly display copies of the work in any medium. In order

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[63] Creative Commons, 'License Your Work' http://creativecommons.org/about/license/ accessed 20 May 2008.

[64] M van Eechoud and B van der Wal, 'Creative commons licensing for public sector information – Opportunities and pitfalls' http://www.ivir.nl/publications/eechoud/CC_PublicSectorInformation_report_v3.pdf accessed 10 May 2008.

[65] Creative Commons, 'International' http://creativecommons.org/international/ accessed 20 May 2008.

[66] Creative Commons, 'Creative Commons Licenses Enforced in Dutch Court' http://creativecommons.org/weblog/entry/5823 accessed 20 May 2008.

[67] Groklaw, 'Creative Commons License Upheld by Dutch Court' http://www.groklaw.net/articlebasic.php?story=20060316052623594 accessed 20 May 2008.

[68] Creative Commons, 'History' http://wiki.creativecommons.org/History accessed 20 May 2008.

[69] GNU Operating System, 'GNU Free Documentation License' http://www.gnu.org/copyleft/fdl.html accessed 21 May 2008.

[70] Free Work Foundation, "FDLv2: First discussion draft' http://gplv3.fsf.org/fdl-draft-2006-09-22.html accessed 21 May 2008.

[71] Free Work Foundation, "SFDLv1: First discussion draft' http://gplv3.fsf.org/sfdl-draft-2006-09-26.html accessed 21 May 2008.

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to do so, however, the licensee is obliged to reproduce in all copies the License, the copyright notices and the license notice stating that the License applies to the document copied. The licensee may not add any terms to the License and may not use technical measures to obstruct or control the reading or further copying of the copies made or distributed. Breach of the terms of the GFDL results in termination of the license, although the rights of licensees further down the line remain intact. A key term when referring to the GFDL is "copyleft". Copyleft refers to the practice of removing copyright restrictions on the distribution of copies and derivative works under the requirement that the distribution take place under the same terms, thus perpetuating copyleft freedoms[72]. It is for this reason that copyleft licenses are also known as "reciprocal" or "viral" licenses. The GFDL is a copyleft license in this meaning and is thus differentiated from CC licenses, which are only copyleft where the share alike clause applies.

Although both licenses effectively pursue the same goals of the Free Culture Movement, the terms of the Creative Commons licenses are nevertheless significantly different to those of the GFDL. First, the GFDL license only offers one single license, under the terms of which copying and distribution can be done either with or without modifications and for commercial or non-commercial purposes. There is no option available equivalent to the No Derivatives or Non-Commercial clauses of the CC licenses. Furthermore, the GFDL also does not offer the option of "porting" into individual jurisdictions. This, of course, limits the choices available to potential licensors, perhaps thereby discouraging interest. It is indicative that the most popular of the CC licenses to date has been the CC BY-NC-SA, chosen by more or less 29% of all licensors, with CC BY-NC and CC BY-NC-ND following in second place, each with a share of 17%[73]. These numbers would seem to imply that the retention of exclusive rights over the commercial use of their creation, an option not supplied by the GFDL, is of importance to a significant percentage of licensors.

On the other hand, the GFDL has a stronger footing when it comes to transparency and simplicity. The ported versions, although precisely intended to encourage the international reach of CC licenses, through both their linguistic translation and legal adaptation to different jurisdictions, may in fact only serve to muddy the waters, especially in the eyes of the average user. It is characteristic that Flickr, the main platform offering the option of licensing UCC under CC licenses, only enables use of the "unported" CC licenses. These are jurisdiction agnostic, since the terminology used is that of the Berne Convention, the Rome Convention, the Universal Copyright Convention and the WIPO Treaties. Nevertheless, it is conceivable that some aspects of these licenses might not align perfectly with every legal system across the globe. The choice seems, therefore, to be between a precise, but unwieldy and complicated tool and one that is easy to understand, if somewhat blunt and inaccurate.

The GFDL has received criticism for its complete prohibition of DRM, even for "private copies made and not distributed"[74]. By contrast, the CC licenses provide that technical measures should not be imposed only when they "restrict the ability of a recipient of the Work from You to exercise the rights granted to that recipient under the terms of the License." Under the terms of the CC licenses, it is specifically noted that nothing impairs or restricts the author's moral rights. In fact, special attention is afforded to the fact that certain acts permissible in most jurisdictions, may be deemed to be "a distortion, mutilations, modifications or other derogatory actions prejudicial to the Original Author's honour or reputation" in a specific legal system (as with the right to make adaptations in Japan). No reference to moral rights is made under the GFDL.

In sum, a license from the author is necessary for the re-use, remix, mash-up, and communication to the public of the content provided on the UCC platform. This relationship is not always very well regulated.

Some UCC platforms purport to regulate inside their Terms of Use the relationship between the makers of content uploaded on their website and the general public. The differences in approach between the platform-owners, regarding the extent to which other users may make use of the content

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[72] Free Work Foundation, 'GNU Free Documentation License', section 4 http://www.gnu.org/copyleft/fdl.html accessed 22 May 2008.

[73] Prodromos Tsiavos, "Approaching the Creative Commons Phenomenon: Legal, Regulatory, Ideological and Technological Dimensions http://www.ebusinessforum.gr/teams/teamsall/view/index.php?ctn=97&language=el accessed 21 May 2008.

[74] 'Why You Shouldn't Use the GNU FDL' http://home.twcny.rr.com/nerode/neroden/fdl.html accessed 22 May 2008.

posted, are significant.

Among the open content licenses, Creative Commons licenses are the most popular alternative. The fully automated and standardised licenses provide creators and licensors with a simple tool to help them indicate what particular rights they wish their works to carry, thus also addressing the uncertainty of prospective users as to what they can and cannot lawfully do with content.

2.2.3. In relation to the use of third party content

Within social networking and sharing communities, like MyVideo, Flickr, Mobango and YouTube, it is not uncommon for makers of UCC to incorporate copyright protected third party content into their own works. Permission is required if the content is to be subsequently distributed, communicated or otherwise made available to the public, unless the third party content is in the public domain or the communication is covered by an exception or limitation. This is the case any time a user incorporates another author's song as background to his video, or uploads someone else's TV programme, video, film, text or photograph on his blog or on a platform like YouTube, Myvideo or Mobango. Some platforms – and most notably YouTube – have signed agreements with a long list of content providers, including CBS, BBC, Universal Music Group, Sony Music Group and others. In Europe, there are also examples of license agreements between UCC's and collecting societies: for example, between YouTube and GEMA, and Dailymotion and the *Société Civile des Producteurs de Phonogrammes en France*[75].

In all other cases, where no global agreement has been reached between the platform operator and content providers, users should clear the rights on third party content that they upload. Obtaining permission imposes transaction costs, such as the costs of establishing the copyright status of the work, the costs of identifying, locating and contacting the right owner, and the costs of negotiating with the right owner to obtain a license to reproduce or otherwise use the work. In some cases, these costs can be so high that prospective users either renounce in actually reutilising the work or prefer running the risk of facing a claim for infringement.[76] Especially for amateur and semi-professional creators, who form the biggest share of individuals active on UCC platforms, the difficulty of tracing the right owners on third party content so as to obtain permission may appear as an insurmountable obstacle. The copyright status of works integrated into UCC is therefore very difficult to ascertain, e.g. since it virtually impossible to tell whether the maker cleared the rights or took a chance. Consequently, the re-use of UCC products becomes much less attractive for subsequent creators and most of all, for professional creators.

Even if the holder of rights on third party content could be easily identified and a license for the use of the work on a UCC platform was easily possible, the question would remain whether the permission obtained extends to the re-use and distribution of said content by other UCC makers. Let's take the example of a commercially released song or piece of music that is synchronised in a video. Assuming that the author of this song or piece of music is a member of a collective rights management society, the maker of UCC would ideally obtain two licenses from collective societies: one, for the mechanical reproduction of the work onto the video; and a second one, for the making available of the work to the public via the Internet. In practice, however, collective management societies usually refuse to grant a license to a non-professional entity or user. Moreover, it is questionable whether such license would entitle a subsequent UCC maker to make the work available to the public on another platform. Imagine that the maker of the video incorporating the music chooses to make his work available under a Creative Commons license. Would this be allowed under the license(s) granted by the collective rights management society?

The problems associated with rights clearance are certainly not new nor are they specific to UCC. However, because UCC is primarily characterised by amateur and semi-professional initiatives, these creators are generally speaking less knowledgeable about copyright issues and have fewer resources to invest in the rights clearance process. At most, these ToU provide that users must refrain from

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[75] F.J. Cabrera Blazquez, 'User-Generated-Content Services and Copyright', IRISPlus, 2008-5, pp. 2-8, p. 6; 'YouTube Wheels and Deals to Avoid Copyright Suits', The Associated Press, October 10, 2006, available at: http://www.law.com/jsp/article.jsp?id=1160397318970
[76] P.B. Hugenholtz, M. van Eechoud, S. van Gompel et al. 2006, p. 176.

violating any intellectual property rights (in particular as regards music, video, animations, plays, software, databases, images, sounds and texts) of third parties.[77] The most reasonable option, in this case, is to encourage UCC makers to either make a note of the fact that they obtained special permission for the inclusion of another person's work into their own or to avoid incorporating third party content in their own works altogether. This is precisely the solution adopted by Wikipedia. The Wikipedia Copyright Policy states:

"All works are copyrighted unless either they fall into the public domain or their copyright is explicitly disclaimed. If you use part of a copyrighted work under "fair use", or if you obtain special permission to use a copyrighted work from the copyright holder under the terms of our license, you must make a note of that fact (along with names and dates). It is our goal to be able to freely redistribute as much of Wikipedia's material as possible, so original images and sound files licensed under the GFDL or in the public domain are greatly preferred to copyrighted media files used under fair use. See Wikipedia:Boilerplate request for permission for a form letter asking a copyright holder to grant us a license to use their work under terms of the GFDL.
Never use materials that infringe the copyrights of others. This could create legal liabilities and seriously hurt the project. If in doubt, write it yourself."

In sum, permission is required if the third party content is to be subsequently distributed, communicated or otherwise made available to the public, unless it is in the public domain or the communication is covered by an exception or limitation. However, especially for amateur and semi-professional creators, who form the biggest share of individuals active on UCC platforms, the difficulty of tracing the right owners on third party content so as to obtain permission and the fact that collective rights management societies usually do not grant licenses to non-professional entities or users may appear as an insurmountable obstacle.

2.3. Analysis and conclusions

As the survey above shows, the European legal framework in the field of copyright law leaves a lot of uncertainties for the parties concerned. The most important source of uncertainties comes from the lack of real harmonization in the area of copyright law within the European Union. As a result, it is not clear what kind of content is protected by copyright, and what content can be used, produced, mixed and distributed in what way. Legal uncertainty exists especially with respect to the requirement of originality, the exercise of exclusive rights, the respect of moral rights and the scope of the limitations on copyright.

Contractual relations play an important role in the production and dissemination of UCC: i) between the platform owner and its users; ii) between users themselves; and iii) with respect to the use of third party content. In the first place, the respective rights and obligations of the platform operator and the contributing users with respect to the use of content made available by, or through, a UCC platform must be determined in order to avoid future copyright related claims by either one of the parties. Guidelines, policy documents, or terms of use published on the platforms' websites are therefore meant to specify the extent to which users may use the content made available by the platform operators, as well as to regulate the upload and (re) use of copyrighted content created by the users.

In the second place, users of UCC material must be granted a license from the author should they wish to re-use, remix, mash-up, and communicate the content provided on the UCC platform the public. This relationship is not always very well regulated. Some UCC platforms purport to regulate inside their Terms of Use the relationship between the makers of content uploaded on their website and the general public. The differences in approach between the platform-owners, regarding the extent to which other users may make use of the content posted, are significant. Among the open content licenses, Creative Commons licenses are the most popular alternative. The fully automated and standardised licenses provide creators and licensors with a simple tool to help them indicate what particular rights they wish their works to carry, thus also addressing the uncertainty of prospective users as to what they can and cannot lawfully do with content. These licenses have the great advantage of offering legal certainty to the user, thus revitalising the public domain and creating a

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[77] Concerning warranties and disclaimers, see chapter 6 on contracts.

hybrid economy of creativity to the benefit of both authors, whether primary or secondary, and end-users.

In the third place, obtaining permission from a right owner for the incorporation of third party content into UCC material is especially problematic for amateur and semi-professional creators. The difficulty of tracing the right owners on third party content so as to obtain permission may appear as an insurmountable obstacle, because UCC makers are generally speaking less knowledgeable about copyright issues and have fewer resources to invest in the rights clearance process. Moreover, collective management societies usually refuse to grant a license to a non-professional entity or user.

3. Obligations from general and sector specific media law regarding content and its presentation

3.1. Introduction

One often-voiced concern regaring UCC is the lack of reliability, quality, lawfulness and safety of videos, blogs, articles and other user creations. To what extent can we trust that a report by a citizen journalist is accurate, that readers and viewers are not exposed to videos that incite hatred or are harmful to minors, that they can clearly recognise the commercial character of a video message, that a piece of music does not violate the rights of third parties, etc.?

Apart from provisions in general penal and civil laws about defamation, libel, pornography, unfair competition, etc., information law (and here in particular audiovisual law but also e-commerce law) has developed a number of sector-specific obligations for the producers and disseminators of electronic content. Most notably, the recently adopted Audiovisual Media Service Directive has extended some of the provisions that formerly ruled the content and presentation of broadcasting services to certain online services. But also the E-Commerce Directive contains some provisions that are relevant for media services. Some of information law's obligations are motivated by economic reasons (e.g. the protection of competition) or reasons of user protection (e.g. provisions on advertisement or youth protection). Other obligations have their roots in the social, cultural and democratic function of the media,[78] the impact of publicised content on public opinion forming and perception (e.g. the rules that safeguard cultural diversity) and the protection of fundamental rights and freedoms, such as freedom of expression and privacy. The question that this section will examine is is to what extent these provisions are applicable to UCC platforms.

A large number of UCC platforms contain video content, which is why audiovisual law might become relevant, certainly after the expansion of the Audiovisual Media Service Directive.[79] The definition of information society services in the E-Commerce Directive[80] is broader and also covers services that deal with music, pictures or written text. In the following, we will analysis if UCC platforms fall under the scope of the Audiovisual Media Service Directive and the E-Commerce Directive. Outside the scope of this study falls the question of whether existing audiovisual law and e-commerce law would need to be amended to fit the situation of UCC. An analysis of press laws would also be relevant, in particular with regard to blogs and citizen journalism. However, press law is still a national matter and varies varies between the different member states. This is why an analysis of press law falls outside of the scope of this study. Finally, we will explore in this section briefly possible future content-related obligations for UCC platforms that might be adopted pursuant the European Parliament's and the Council's recommendation on minors and human dignity. In a second part, we will then briefly point to the role of general national civil and penal laws.

One characteristic of UCC is that consumers themselves take over functions as content creators and publishers. Therefore, when analyzing the applicability of the Audiovisual Media Service Directive and the E-Commerce Directive, two questions need to be distinguished: 1. to what extent do UCC platforms fall under rules that apply to broadcasting and e-commerce services, and 2. to what extent do these rules oblige professional parties only, or are also applicable to natural, non-professional parties, that is makers of user created content.

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[78] "The press plays an essential role in a democratic society. Although it must not overstep certain bounds, in particular in respect of the reputation and rights of others, its duty is nevertheless to impart – in a manner consistent with its obligations and responsibilities – information and ideas on all matters of public interest", European Court of Human Rights, *Case of Thoma v Luxembourg*, 29 March 2001, Reports of Judgments and Decisions 2001-III, paragraph 45; European Court of Human Rights, *Case Sunday Times*, Strasbourg, 26 April 1979, Series A, No. 30, paragraph 65. The German Federal Constitutional Court described the social function of the media as "Medium und Motor gesellschaftlicher Verständigung" (the media as means and motor behind communication within a society") , BVerfGE 20, 96, 98, 99, 174 subsq.

[79] Directive 2007/65/EC of the European Parliament and of the Council of 11 December 2007 amending Council Directive 89/552/EEC on the coordination of certain provisions laid down by law, regulation or administrative action in Member States concerning the pursuit of television broadcasting activities
OJ L 332/27 (18.12.2007) (Audiovisual Media Service Directive – AVMSD)

[80] Directive 2000/31/EC of the European Parliament and of the Council of 8 June 2000 on certain legal aspects of information society services, in particular electronic commerce, in the Internal Market, OJ L 178/1 (17.07.2000) (E-Commerce Directive – ECD).

3.2. European Audiovisual Media Law – some introductory remarks

Of all media, audiovisual media (that is: video content) are probably most densely regulated. The overall goal of European audiovisual law is the protection of the viewer's interest in access to a diverse and high quality audiovisual offer, and functioning competition in the Internal audiovisual market. One of the main arguments to justify the traditionally high level of government intervention with audiovisual media are the alleged pervasiveness and intrusiveness of audiovisual media, and here in particular of broadcasting. Broadcasting as a medium would intrude into people's home, and would not leave viewers much choice but to watch.[81] Secondly, it is still genuinely assumed that audiovisual media have a particularly strong impact on society and on how people form their opinions, which is another reason used to justify regulatory intervention.[82]

European audiovisual law is (not any longer) only about broadcasting services. The recently adopted Audiovisual Media Service Directive extends some of the rules that applied formerly exclusively to broadcasting services also to newer, more interactive forms of presenting audiovisual content, notably on demand services that are offered online.[83] The makers of the directive explained this with the arrival of new business models and a more active role of users in the selections of the programmes that they watch. On the one hand, the makers of the directive wished to also protect consumers and citizens of these new, "television-like" services. On the other hand, regulating on-demand services was also a response to "increasingly unjustifiable differences in regulatory treatment between the various forms of distributing identical or similar media content".[84]

Accordingly, the new AVMSD distinguishes services according to the level of user interaction (pull and push media). Services that are transmitted to recipients on the basis of a pre-defined programme schedule are broadcasting (art. 1 (e) AVMSD). This also includes webcasting and streaming.[85] Services that are offered upon individual request and "on the basis of a catalogue of programmes selected by the media service provider are so called "on-demand audiovisual services" or "non-linear audiovisual media services" (Art. 1 (g) of the AVMSD), irrespective of whether they are delivered via traditional means (cable, satellite) or via the Internet. Due to the lack of a pre-programmed schedule and the fact that recipients choose from the contents on offer, most UCC services would probably fall, if at all, under the second category ("on-demand audiovisual services").

As far as the regulation of on demand services is concerned, the directive uses what some call a "lighter touch" approach on non-linear audiovisual services.[86] The directive extends some of the rules that apply to traditional broadcasting services to online on-demand services (mainly the rules on hate speech, protection of minors, advertisement rules and obligations concerning the share of European works). In addition, the general rules on consumer protection (e.g. in the e-Commerce Directive) apply (see Part III, section 3.3).[87]

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[81] E. Barendt, *Broadcasting Law. A Comparative Study*, Clarendon Press, Oxford, 1993, p. 6. However, Barendt rightly also suggests that broadcasting does not intrude into people's home unless they want it to; they can still choose to switch the television off, p. 7.

[82] Recitals 42 and 43 of the AVMSD.

[83] Webcasting and streaming services are considered "broadcasting" in the sense of the directive, see Recital 20 of the AVMSD.

[84] European Commission, *Proposal for a Directive of the European Parliament and of the Council amending Council Directive 89/552/EEC on the coordination of certain provisions laid down by law, regulation or administratetive action in Member States concerning the pursuit of television broadcasting activities*, Brussels 13.12.2006, COM(2005)646 final, Explanatory Memorandum, p. 2 and 3.

[85] Recital 20 of the AVMSD.

[86] Critical e.g. N. Van Eijk, 'The modernisation of the European Television without Frontiers Directive: unnecessary regulation and the introduction of internet governance', (draft) paper presented at the International Telecommunications Society 19th European Regional Conference, 2-5 September 2007, Istanbul, Turkey, online available at: http://www.ivir.nl . Van Eijk points out that what the directive actually does is to export broadcasting regulation to on demand online services, thereby regulating them more, not less.

[87] See Recital 29 and Article 3 (4) of the Audiovisual Media Services Directive

3.2.1. Brief overview over most relevant requirements for audiovisual services

The Audiovisual Media Service Directive harmonizes three major categories of quality safeguards with regard to audiovisual services. First, it includes rules on the **protection from undesirable content**. These are notably the provisions on

- hate speech (Art. 3b): Audiovisual media services may not contain any incitement to hatred based on race, sex, religion or nationality.

- protection of minors (Art 3h and Art. 22): Broadcasting services may not include any programs which might seriously impair the physical, mental or moral development of minors. On-demand services may only be made available in such a way that minors will not normally hear or see such on-demand audiovisual media services.

Second, the directive contains a number of positive obligations regarding the accessibility of certain types of content or for certain groups:

- European works (Art. 3i, 4 and 5): Audiovisual media service providers shall promote the production of and access to European works (e.g. by financial contributions or prominent display in an EPG/catalogue), or, as in the case of broadcasting, even reserve a majority of their transmission time for European works.

- Accessibility for disabled persons (Art. 3c): Audiovisual media service providers shall ensure that their services are accessible to people with a visual or hearing disability.

Finally, the directive includes some provisions with the intention to **protect viewers**, as consumers and as citizen, notably their trust in the reliability, accuracy and safety of the information provided. These are provisions on

- Advertising (Art. 3e, 3g, 10, 11, 14, 15, 18, 18a AVMSD): Apart from restraints on the quantity of advertising for audiovisual services in general (Arts. 3g, the AVMSD) and broadcasting in specific (Art. 18, 18a), the AVMSD also includes provisions regarding the quality of advertising (e.g. audiovisual commercial communication may not prejudice respect for human dignity, health, safety or the environment, minors, etc., Art. 3e, 11, 14, 15 AVMSD).

- Separation content/commercial communication and protection of editorial independence (Art. 3a, 3f, 10): Advertising must be recognisable as such. This is in order to protect consumers from confusing commercial communication and editorial content, and to increase their trust into editorial content. A similar provision also exists in the ECD (see Part III, section 3.3). Where programmes are sponsored, this may not affect the responsibility and editorial independence of the media service provider (art. 3f AVMSD).

- Transparency (Art. 3a): Providers of audiovisual media services are obliged to provide users with certain information (name, geographical and electronic address, competent regulatory body) so that users know who is responsible for the content of a service. According to the directive, this is important so that people can better assess the information provided.[88] Identification of the service provider is also important in case of complaints, and in order to realize the right of reply (which so far only exists with regard to broadcasting services, but might be extended to also cover on demand services, see Part III, section 3.2).

In sum, in case a national judge or media authority finds that a UCC platform qualifies as audiovisual media service, the operator of that platform would have to make sure that the platform does not contain any hate speech, that the content respects the protection of minors, is accessible for disabled persons and that the platform promotes European works. Moreover, there are restrictions on advertising and certain transparency obligations.

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[88] Recital 43 of the AVMSD.

3.2.2. UCC platforms and the AVMSD

Since to the knowledge of the authors, no case law exists that explores the question of when a UCC platform qualifies as audiovisual media service in the sense of the European Audiovisual Media Services Directive, the following paragraphs are somewhat speculative. They are intended to give an impression of how national judges might decide in the future.

Note that the Audiovisual Media Service Directive has only harmonized parts of national audiovisual law, including the definition of what an audiovisual media service is in the first place. As a consequence, if an UCC platform qualifies as audiovisual media service, it could face additional, not yet harmonized obligations under national audiovisual media laws (for example with regard to diversity and media concentration). Much will depend on how member states implement the AVMSD.[89]

UCC platforms can fall under the AVMSD if they qualify as "audiovisual media services" in the sense of the directive. The AVMSD defines an "audiovisual media service" as

"service as defined by Articles 49 and 50 of the Treaty which is under editorial responsibility of a media service provider and the principal purpose of which is the provision of programmes in order to inform, entertain or educate, to the general public by electronic communications networks" (Art. 1 (a) of the AVMSD).

A synopsis of the relevant articles and recitals in the directive suggests that in order to qualify as "audiovisual media service", an audiovisual offer would have to show the following characteristics:

- Principal purpose is to provide programmes[90] in order to inform, entertain or educate (Art. 1a of the AVMSD).
- Audiovisual content is offered either for simultaneous viewing on the basis of a programme schedule or on demand (Art. 1 e, g).
- Economic activity in the sense of Arts. 49 and 50 of the EC Treaty (Art. 1a of the AVMSD).
- Intended for reception by, and having a clear impact on, a significant proportion of the general public ("mass media") (Art. 1 (a), Recital 16).
- Subject to editorial responsibility of a media service provider (as opposed to a mere transport function (Art. 1a, Recitals 19, 23)).

There is little doubt that at least some UCC platforms easily comply with the first three criteria. "Programme" has been defined broadly and refers to video content ("a set of moving images with or without sound") within a schedule or catalogue established by a media service provider, Art. 1 (b) of the AVMSD.[91] Moreover, as the directive explains, the notion of "programme" should be interpreted in a dynamic way "taking into account developments in television broadcasting" (Recital 17 of the AVMSD). A review of random VOD sites shows that many of them sort videos according to certain categories (film, children, comedy, news, cars, sports, recommended video, most recent/popular/recommended video, etc.) and often also add some search functionalities. Arguably, these ways to present content differ not much from the way Dailymotion or FameTV are organized, to name but two examples. Accordingly, one could argue that the way some UCC platforms present UCC qualifies as "programme" in the sense of the directive.

Most UCC platforms will probably also easily qualify as services within the sense of the EC Treaty. The European Court of Justice clarified that the remuneration for a service does not necessarily have to be paid by the receiver of the service.[92] The European Court of Justice has defined "remuneration" in the context of Article 50 as "any economic value in return for the provision of a service, generally paid between service/content provider and receiver."[93] "Remuneration" can hence also be the payment a service/content provider receives from a third party, e.g. payments from advertisers or from third

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[89] Member states must have transposed the AVMSD by December 2009.

[90] In the sense of "moving images with or without sound", Art. 1 (b) of the AVMSD.

[91] The directive itself gives the following examples of a "programme": feature-length films, sports events, comedy, documentaries, children's programmes and original drama (Art. 1 (b) of the AVMSD).

[92] European Court of Justice, Case C-263/86 (*Humble*), 27 September 1988, Rec.1988, p.5365, paragraph 17.

[93] European Court of Justice, *Humble,* paragraph 17.

parties that pay commissions for the content offered on UCC sites.[94] On another occasion, the court decided that remuneration is not restricted to financial compensation but can also consist of return-services in kind.[95] For the given context, one could think of the provision of personal data by users in exchange for the right to use the service. Information about preferences and behaviour of consumers is increasingly gaining its own market value.

More problematic is the following condition. In order to qualify as audiovisual media service, the content posted must be intended for reception by the general public (as opposed to private communication). In Recital 16, the directive further specifies that excluded from its scope are

"private websites and services consisting of the provision or distribution of audiovisual content generated by private users for the purpose of sharing and exchange within communities of interest".[96]

And, indeed, a great deal of content on the web is private in character and not really meant to be shared with a greater public – diaries, travel reports, photos, home videos.[97] This is at least true where such content is password protected or otherwise restricted to a limited audience. Social network services such as Facebook,[98] Flickr,[99] Cyworld,[100] Hyves,[101] etc. aim at this audience and offer users the possibility to share photos, stories, videos, commentaries with each other. According to the wording of the directive, such UCC platforms are probably excluded from its scope.

Other UCC platforms, however, are not only clearly intended for public reception.[102] They also show plain aspirations to engage in "broadcasting"-like activities and journalism. Veoh, for example, describes itself as a

"revolutionary Internet TV service that gives viewers the power to easily discover, watch, and personalize their online viewing experience… Veoh is an open platform for content publishers of all sizes and sophistication who want to reach tomorrow's television audience".[103]

And clipfish tells its users:

"Du bist Teil einer grossen Community, und gemeinsam macht ihr euer Fernsehen einfach selbst" (You are part of a large community, together you make your own television).[104]

These services might eventually even compete with traditional broadcasting in terms of journalistic influence and audience reach. Recent studies show that UCC is gaining in importance for the way users gather information on current topics and form their opinions.[105]

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[94] Chapter … of this study demonstrates that advertising financing is an important source of income for most UCC platforms, next to syndication, subscription and sales conducted via the platform.

[95] European Court of Justice, Case C-196/87 (*Udo Steymann v Staatssecretaris van Justitie*), 5 October 1988, Rec.1988, p.6159, paragraph. 14. In Steymann, the court had to decide whether the work that Mr. Steymann performed for the Bhagwan Community qualified as economic activity, even if Mr. Steymann did not receive direct financial payment but indirect quid pro quo for his work. See also European Court of Justice, Case C-157/99 (*Smits and Peerbooms*), 12 July 2001, Rec.2001, p.I-5473, paragraph 58: the essential characteristic of remuneration lies in the fact that it constitutes consideration for the service in question.

[96] Recital 16 of the AVMSD.

[97] Many of these services have embedded privacy features that allow users to restrict sharing to family and "friends".

[98] http://www.facebook.com/ (a social networking site that allows people to build and join networks, and connect/interact with others by text, photos, videos, etc.).

[99] http://www.flickr.com/ (a photo management and sharing site).

[100] http://us.cyworld.com/ (a South Korean site that offers combined photo gallery, message board, guestbook, video, and personal bulletin board).

[101] http://hyves.net/ (presently the most popular Dutch social networking site).

[102] Note that directive requires that audiovisual content be *intended* for the public, not that it is being actually received by a significant portion of the public More detailed about the question of when one can speak of a "significant portion of the public", see N. Helberger, 'Brot und Spiele – Die Umsetzung der Listenregelung des Artikel 3a der Fernsehrichtlinie', 4 *Archiv für Presserecht* 2002, p. 292, 295.

[103] http://www.veoh.com/static/corporate/aboutUs.html

[104] http://www.clipfish.de/faq.php#10

[105] A. Lenhart, M. Madden, A. Rankin Macgill, A. Smith, *Teens and Social Media: The use of social media gains a greater foothold in teen life as they embrace the conversational nature of interactive online media*, Pew Internet & American Life Project, 19 December 2007 (finding that 64% of American online teens ages 12-17 have participated in one or more among a wide range of content-creating activities on the Internet, up from 57% of online teens in a similar survey at the end of 2004), online available at: http://www.pewInternet.org/pdfs/PIP_Teens_Social_Media_Final.pdf. C. Pascu, *Innovations in communications:*

Probably the most critical and difficult question is whether UCC platform operators exercise editorial control, similar to providers of audiovisual media services. Art. 1 (c) of the AVMSD defines editorial responsibility as

"the exercise of **effective control** both over the **selection** of the programmes and over **their organization** either in a chronological schedule, in case of television broadcasting, or **in a catalogue**, in the case of on-demand audiovisual media services."

We already mentioned that a broad interpretation of "programme" could lead to the result that UCC platform operators have control over the organization of the platform in a catalogue.[106] One argument why UCC platforms might not control the selection of the programmes could be the fact that users decide which contents they post, not the UCC platform.[107] Or as a French court noted: what distinguishes the role of a publisher (as opposed to the mere technical role of a hosting service) is that the publisher is personally at the origin of the dissemination.[108] Having said this, the court did not discuss Dailymotion's second publishing strategy, the so called MotionMaker programme. Dailymotion reviews the content from so-called MotionMakers prior to publication on the Dailymotion site and labels selected contents as "Creative Content". According to the Terms of Use, Dailymotion has full discretion in the selection, review and promotion of user created content.[109] Similarly, the former citizen-journalist site Skoeps informs its users that the editorial office checks all uploaded news items before putting them online. Skoeps also selects the best news items, which then have the chance of winning a price. In other words, in some cases, the operator of the UCC platform is closer to the origin of the transmission than in others.

An even stronger case in favour of arguing that UCC sites are actively involved in the selection of content concerns situations in which a UCC platform proactively solicits and licenses third parties' content. Some platforms, such as Last.FM, will license selected user created content in order to include it in its music (radio) and video streams. Others will license professional content. To stay with the example of Dailymotion: Dailymotion has also launched the Offical Content programme, inviting official content to be shared via its site. In addition, Dailymotion has concluded licensing agreements with e.g. Universal Music and Warner Music. It, moreover, has closed deals with several professional news organizations, including Le Figaro, Le Monde, Libération, France Info, Rue89 and France 24, to post content on the Dailymotion site[110] (for more information see Part III, section 2.2.3 of this study). Also YouTube has struck numerous partnership deals with content providers such as CBS, BBC, Universal Music Group, Sony Music Group, Warner Music Group, NBA, The Sundance Channel. MySpace has concluded in the US licensing contracts over the exclusive distribution of e.g. the series "Prom Queen" made by professional producers.[111] OhmyNews has signed an agreement with Herald Tribune for the exchange of headlines. Cyworld negotiates broadcast licenses with music labels, etc. Some of the larger UCC platforms show clear tendencies to move into the direction of multi-media content distribution platforms.

The role of users, industry, and policy, paper presented at the EuroCPR conference, 31st March- 1st April 2008, Seville, p. 7 subsq.,

[106] Much will depend on the interpretation of national courts. In the French MySpace case, for example, the Court of First Instance, Paris, found that offering a specific, frame-based, structure for members to present their personal information and adding advertisement to the individual sites was a reason to consider MySpace a publisher (instead of a hosting service), Tribunal de Grande Instance de Paris, 5 June 2007 (*Lafesse v MySpace)*, online available at http://www.legalis.net ; In another case, the Court of First Instance claimed the opposite, that not the structure or presence of advertisement was relevant, but whether the user or the operator of that platform were "at the origin of the dissemination", Tribunal de Grande Instance de Paris, 13 July 2007 *(Nord-Ouest Production v Dailymotion)*, online available at http://www.legalis.net ; in this sense also Tribunal de Grande Instance de Paris, 19 October 2007 (*Zadig Productions v Google),* online available at http://www.legalis.net .

[107] In this sense for example the contribution of ASIC on the transpositino of the AVMSD into French law, *Contribution ASIC sur le transposition en droit francais de la directive 2007/65/CE du 11 d'ecembre 2007*, dite directive "Services de m'edias audiovisuels", p. 3, online available at: http://www.lasic.fr/IMG/pdf/Contribution_ASIC_-_Transpo_SMA_-_31mars2008.pdf .

[108] Tribunal de Grande Instance de Paris, 13 July 2007 *(Nord-Ouest Production v Dailymotion),* online available at http://legalis.net.

[109] http://www.Dailymotion.com/legal/motionmaker

[110] Interview with Martin Rogard, director of content for Dailymotion, in: *The Editors Weblog,* 'UGC: News' friend or foe? Interview Dailymotion', 15 November 2007, online available at: http://www.editorsweblog.org/analysis/2007/11/ugc_news_friend_or_foe_intervi.php

[111] See e.g. heise online, 'Myspace lizensiert Hollywood-Inhalte', news report, 22 July 2007, available online at: http://www.heise.de/newsticker/meldung/93085

In sum, the AVMSD is ambiguous of whether UCC platforms do or do not fall under audiovisual law. Although the directive could be read in a way that UCC platforms are excluded, the same recital could also be understood to exclude only UCC services, and most notably social networks, whose primary purpose it is to enable simultaneous private communication with a restricted circle of "friends". Other UCC platforms that carry audiovisual content might qualify as "audiovisual media services" in the sense of audiovisual media law. Much will depend on how national courts and regulatory authorities define notions such as "editorial control", "programme", "public", etc. For the UCC platforms concerned, this could mean that they could be subjected to the same or similar rules about advertising, internal pluralism, protection of minors, media ownership etc. that already apply to broadcasting and other audiovisual services.

3.3. E-Commerce Directive

Those UCC platforms that do not qualify as audiovisual media services in the sense of the AVMSD could still fall under the provisions in the ECD. The notion of "Information Society Services" is broader than the notion of audiovisual service in that it covers not only video content but also e.g. music and written text, and, more generally, the offering of online information.[112] Information society services are all services that are normally provided for remuneration,[113] at a distance, by means of electronic equipment for the processing and storage of data, and at the individual request of a recipient of a service.[114] UCC platforms that offer their users upon request storage and other functionalities and that are either directly (subscription) or indirectly (advertisement, click rates, etc.) financed fall under the scope of the directive.

Similar than the AVMSD, Article 6 of the ECD also includes a provision that concerns the division of editorial content and advertisement: according to Art. 6 commercial communications and promotional offers shall be clearly identifiable, as shall be the natural or legal person on whose behalf the commercial communication is made. Similar is true for unsolicited commercial communications (spam), according to Article 7 of the ECD. The ECD also contains transparency obligations (e.g. Art. 5 of the ECD).

The ECD does not contain any provisions regarding the actual content of services, respectively contents that are prohibited (such as hate speech or harmful content). Insofar, the general laws apply (see section 3.6 of this chapter). Having said this, Article 16 c (e) of the ECD calls on Member States and on the European Commission to encourage the drawing up of codes of conduct regarding the protection of minors and human dignity. In so doing, Member States and the European Commission shall also encourage the participation of users and their representatives in the process of developing and implementing such codes (Art. 16 (2) ECD) (see also section 3.4 of this chapter). Annex 4 demonstrate what relevant codes of conduct already exist for UCC.

3.4. Recommendation on the protection of minors and human dignity

The protection of minors and human dignity, and the need to avoid all discrimination based on sex, racial or ethnic origin, religion, belief, disability, sexual orientation, etc. cannot remain restricted to audiovisual media but must be safeguarded for all legal content in on- and offline media. This is one of the conclusions of the European Parliament and the Council in its Recommendation on the protection of minors and human dignity and on the right of reply in relation to the competitiveness of the

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[112] Recital 18 of the ECD.

[113] As already explained, it is not necessary that the service is being remunerated by those who receive them, indirect forms of financing (advertising, traffic, etc.) can also constitute economic activities in the sense of the definition. See Recital 18 of the ECD, see also section 3.2.2 above.

[114] Directive 98/34/EC of the European Parliament and of the Council of 22 June 1998, laying down a procedure for the provision of information in the field of technical standards and regulations and of rules on information society services, OJ L 204, 21.7.1998, p. 37, Directive as amended by Directive 98/48/EC, OJ L 217, 5.8.1998, p. 18 and Directive 98/84/EC of the European Parliament and of the Council of 20 November 1998 on the legal protection of services based on, or consisting of, conditional access , OJ L 320, 28.11.1998, p. 54), Recital 17 of the ECD.

European audiovisual and online information services industry.[115] Although the recommendation does not specifically mention UCC, it is directed at the media in general and hence also of relevancy for UCC platforms. Note that even if the recommendation may not be legally binding it can cause legal and political effects. For example, the European institutions as well as the member states must consider recommendations of the European Parliament and the Council in their activities. Moreover, national courts can consider the recommendation when interpreting national law that is related to the protection of minors and human dignity.[116]

The European Parliament and the Council recommend member states to encourage shared responsibility of professionals, intermediaries and users to avoid discrimination, encourage vigilance and draw up codes of conduct. However, as the European Parliament and the Council also point out, self-regulatory measures alone are probably not sufficient to protect minors from messages with harmful content.[117] Concrete measures that the European Parliament and the Council recommend are, apart from the promotion of media literacy, the introduction of quality labels, the establishing of reporting mechanisms and procedures and the application of filtering mechanisms to the extent that they can be effective in detecting illegal content. In its recommendation, the European Parliament and the Council also suggest to extend the right of reply[118] to online media (recital 15).

The protection from illegal and harmful online content, and here especially content that is harmful for minors, is also subject to the EU's Safer Internet Action Plan 2009-2013. Like the European Parliament and the Council, the action plan, too, emphasises that the fight against illegal and harmful content in all media is a matter of shared responsibility of all stakeholders involved.[119] The Action Plan specifically mentions new challenges posed through the greater opportunities for participation and creation of content through all members of society, including users/amateurs.[120] The plan essentially picks up the recommendations of the European Parliament and of the Council. Accordingly, focus points of the programme are the promotion of self-regulation, of reporting mechanisms and procedures, the use of technical solutions (e.g. filtering and access control), awareness raising and media literacy, as well as the creation and transfer of knowledge and expertise.

The protection of minors from harmful content has been subject to some co- and self-regulation. An interesting example of a more pro-active approach towards protecting the rights and interests of minors that could set a standard also for European UCC platforms are the Key Principles of Social Networking Sites Safety, a co-regulatory measure between the fifty Attorney Generals of the States of America, MySpace and Facebook. In the agreements, both MySpace and Facebook commit to taking more responsibility for providing children with a safer social networking experience, and to explore ways of protecting children, e.g. in form of design choices, child-friendly default settings, parental control tools, effective reporting mechanisms, educational measures for children and their parents, cooperation with law enforcement authorities and the development of effective age and identity

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[115] *European Parliament and Council, Recommendation of the European Parliament and of the Council of 20 December 2006 on the protection of minors and human dignity and on the right of reply to the competitiveness of the European audiovisual and on-line information services industry*, OJ L 378, 27.12.2006, p. 72, recital 14 and recommendation I [European Parliament and Council 2006]. See also Council, *Council Recommendation of 24 September 1998 on the development of the competitiveness of the European audiovisual and information services industry by promoting national frameworks aimed at achieving a comparable and effective level of protection of minors and human dignity*, OJ L 270, 7.10.1998, p. 48. Further European initiatives to safeguard the quality and safety of online content, particularly for minors are the *Council Framework Decision 2004/68/JHA of 22 December 2003 on combating the sexual exploitation of children and child pornography*, the European Commission's Communication *Towards a general policy on the fight against cyber crime*, Communication from the Commission to the European Parliament, the Council and the Committee of the Regions, COM(2007)267, 22.5.2007 and the E*U Guidelines for the promotion and Protection of the Rights of the Child*, Council Conclusions 16457/07, 12 December 2007, as well as the European Commission's *Communication Towards an EU Strategy on the Rights of the Child*, COM(2006)367, 4.7.2006. In addition, there are the Council of Europe's *Convention on Cybercrime* from 2001, and the Council of Europe's *Convention on the protection of children against sexual exploitation and sexual abuse*, adopted by the Committee of Ministers on 12 July 2007 at the second meeting of Ministers' Deputies, opened for signature at the Conference of European Ministers of Justice on 25 and 26 October 2007.

[116] See e.g. European Court of Justice, Case C 322/88 (*Grimaldi/Fonds des Maladies Professionnelles*), Rec.1989, p.4407, paragraphs 8 and 9, with further references.

[117] European Parliament and Council 2006, recital 12. Note, Art. 16 (1) (e) of the ECD calls upon Member States and the European Commission to encourage the drawing up of codes of conducts regarding the protection of minors and human dignity.

[118] For the time being, the AVMSD reserves the right of reply to broadcasting services.

[119] European Commission, *Proposal for a decision of the European Parliament and of the Council establishing a multiannual Community programme on protecting children using the Internet and other communication technologies,* Brussels, 27.2.2008, COM(2008)106 final [European Commission 2008].

[120] European Commission 2008, p. 2.

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verification technology (for an extensive discussion see Annex 4). Notable in this context is is also the idea of an industry wide Internet Safety Technical Task Force whose goal it is to develop online safety tools. In addition, a number of co-and self-regulatory initiatives focus on labelling and user education in specific industry dectors (not necessarily UCC only), such as the Good Practice Principles on Audiovisual Content, the European Framework for Safer Mobile Use by Younger Teenagers and Children or the PEGI Online Safety Code (see Annex 4 for a detailed description).

The practice of many individual UCC sites still lags behind European ambitions. Most of the sites reviewed had no measures for age control or parental control in place. Although some will state that users must be 14 years and older, and for some sections even 18 years, little is being done to verify the age of the actual user, or to prevent circumvention.[121] However, there are also examples of more pro-active initiatives, and some individual platforms have shown further reaching initiatives, including the use of technical solutions such as DailyMotion's "Family Filter" or HabboHotels "bobba filter" (see Annex 4). At times, the use of such filters, however, can have side-effects and result, for instance, in territorial discrimination. For examples, Flickr allows users to flag content that is not suitable for minors (Flickr users can flag their photos as safe, moderate or restricted.[122] In addition, Flickr uses two kinds of filters: filters for users and pre-installed filters. Users with a German Yahoo ID have principally no access to restricted content, even if they are older than 18 years. Korean users are even more restricted and can watch only safe content. Other platforms (such as Mobango or Second Life) create restricted content sections for adult content which only users of 18 years and older can access.

3.5. Users as broadcasters and information society services

One essential characteristic of web 2.0 is that users can step into the roles of producers, editors and distributors. This is the very power of the UCC phenomenon. The changing role of the user cannot only unsettle established industries; it also raises some difficult legal questions. Existing information law still largely operates on the assumption of professional media producers and private media consumers. If users turn into producers and publishers of media content, does this also mean that they are subject to the same rules that apply to broadcasters and information society services? Are users that operate their own, private video channel or that edit videos of other users obliged to make sure that their website is accessible to disabled persons, and that informational content can be distinguished from advertisement? Should individual users promote European works? Must users who upload videos on YouTube provide their name, email address, website, etc? Or to speak in legal terms, are the active YouTube user, the editor of a channel on Pandora.TV, or a blogger an "audiovisual media service provider", an "information society service provider" or a "journalist" in the sense of existing laws?

Again, we must limit our analysis to selected areas, namely European Union audiovisual law and e-commerce law. The following section will examine if amateur producers and distributors of digital content could fall at all under the scope of the AVMSD and the ECD, or if the directives only address professional users. Even if we find that existing audiovisual law or e-commerce law could, in principal, also apply to individual users, there still is the question if it should do so. We will then briefly explain in more general terms that information law is not only about obligations, but sometimes also about privileges, and what this could mean for citizen journalists.

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[121] A critical discussion of age verification can be found in A. Thierer ,"Social Networking and Age Verification: Many Hard Questions; No Easy Solutions", *Progress & Freedom Foundation Progress on Point Paper* No. 14.5, 21 March 2007, online available at: http://ssrn.com/abstract=976936

[122] Flickr recommends to flag a content as restricted if a user 'probably wouldn't show the photo to his mum, and it definitely shouldn't be seen by kids.'

3.5.1. When do users qualify as broadcasters and information society services?

The following section will analyze the current interpretation of a number of key notions that European law uses in order to define "broadcasters" and "information society services", and see how they fit the individual creator of UCC. These are the notions of "economic activity", "service to the public" and "professionalism".

Economic activity

Both, the AVMSD and the ECD target providers of "services" in the sense of the European Treaty, that is: "any activity which is normally provided for remuneration" (Art. 50 ECT). The economic character of the activity does not take away that services can also be cultural in nature and of social, cultural and democratic importance.[123]

The activities of the majority of individual users on YouTube, MySpace et. al. will usually lack the economic character that characterises traditional information society or audiovisual media services. Only in few cases will users be able to receive a direct share of the revenues that the UCC platform might generate with their creations (see e.g. the example of Last.fm or the former Skoeps), and some sites even explicitly prohibit users to place advertisement or sponsoring (see e.g. the terms of use of Mobango or MySpace). Having said this, user created content can generate economic value, even if that value is not intended by or meant for users in the first place.

The European Court of Justice had on some occasions to decide whether the activities of amateurs would constitute a "service" in the sense of the EC Treaty. According to the European Court of Justice, for the activities of amateurs to be considered a service, they must be genuine and effective.[124] No "services" are activities on such a small scale as to be regarded as purely marginal and ancillary.[125] In other words, a user who occasionally posts content on a UCC site will not be considered a service provider in the sense of European law. Yet an open question is what is the threshold and how many e.g. videos must a user post to qualify as service?

Another question is if users themselves must seek profit in order to qualify as a service. Many users are not so much motivated by financial remuneration but by other, more immaterial gains, such as a better reputation, more friends, a wider distribution, etc.[126] As the Advocate General pointed out in one case:

"[t]he lack of intention to make profit does not, in itself, place an activity outside the scope of Article 50. The decisive factor … is its economic character: the activity must not be provided for nothing, but there is no need for the provider to be seeking to make a profit."[127]

The European Court of Justice decided in the case of a judo amateur that her participation in sponsored competitions has service character because it enabled organizers of sport tournaments to attract the interest of broadcasters, advertisers and sponsors.[128] In other words, even if the gross of revenues accrued to the organizers of that event, the court still considered the activities of the amateur a service. Arguably, the situation of organizers of sport tournaments is to some extent comparable to the situation of UCC platforms, which attract user created content to generate advertising and other revenues.

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[123] See recital 3 of the AVMSD and recitals 9 and 10 of the ECD.

[124] European Court of Justice, Joined Cases C-51/96 and C-191/97 (*Deliège*), 11 April 2000, Rec.2000, p.I-2549, para. 54. In the case Deliège, the court had to decide whether the rules of the European Judo Union, which limit the number of athletes allowed to participate in tournaments, were compatible with Ms. Deliège's freedom to provide services across border. Ms. Deliège was a very successful amateur judoka.

[125] European Court of Justice, *Deliège*, para. 54; European Court of Justice, Judgment of the Court of 23 March 1982, Case 53/81 (*D.M. Levin v Staatssecretaris van Justitie*), ECR 1982, p. 1035, paragraph 17.

[126] See only Y. Benkler, *The Wealth of Networks*, Yale University Press, New Haven 2006, p. 59 ff.

[127] Opinon of Advocate Genral Poiares Maduro, Case C-281/06 (*Hans-Dieter Jundt, Hedwig Jundt vs Finanzamt Offenburg*), 10 October 2007, paragraphs 11 and 12. In this sense also the final decision, European Court of Justice, Case C-281/06 (*Jundt*),18 December 2007 OJ C 51, 23.02.2008, p.17.

[128] European Court of Justice, *Deliège*, para. 57.

Professional/amateur

Another question is whether the activity of users must be part of their profession. For example, the earlier version of the AVMSD required that an audiovisual media service provider is someone who exercises editorial control "on a professional basis."[129] The wording did not make it into the final version of the directive. Instead, the AVMSD speaks now of "effective control". Under the AVMSD, a "media service provider" can be in principle any

"natural or legal person who has editorial responsibility for the choice of the audiovisual content of the audiovisual media service and determines the manner in which it is organized." (Art. 1 (d) of the AVMSD).

Arguably, this description could also fit amateurs. Content on Pandora.TV is edited and aggregated by users. Each user can have his or her own channel, to which she can add own and third party content. Channel editors can categorise and customise the videos offered on their channel. A somewhat different example is Digg, here users themselves not only submit the content but also decide through rating ("digging") which content appears at the front pages (and hence is most likely to be watched). More generally, user rating can be a very effective means of editorial control. Accordingly, individual users could, in principle, qualify as audiovisual media service providers, provided that they comply with the other conditions of the directive (see Part III, paragraph 3.2.2).

The question of the conditions under which amateurs can be considered professional broadcasters played, for example, a role in the process of revising the German broadcasting law. Its makers emphasised that it is not the intention of the draft law to submit e.g. individual bloggers the strict rules that apply to audiovisual services.[130] Accordingly, the draft law has defined treshholds: services that target less than 500 potential users at the same time, that serve personal or family purposes or lack editorial involvement are excluded from its scope.[131]

Unlike the AVMSD, the ECD does include a reference to the professional character of an activity. There, professionalism is used to distinguish service providers from consumers. Anyone acting for purposes that are outside his or her trade, business or profession is a consumer (Art. 2 (2) of the ECD), with the consequence that the ECD does not oblige her, but protects her. This wording seems to exclude the amateur producer and distributor of content. Having said this, unclear is the threshold when users turn into service providers, and consequently do not any longer merit protection under the ECD, but must protect other users.[132] Note that when using a UCC platform, users can be users and service providers at the same time.

Public/private

Frequent posting alone does not turn a user into a broadcaster or publisher. The content must also be intended for the public. The private/public dichotomy is an important distinguishing factor in information law. The dissemination of content to a restricted circle of close friends and family (private) is subject to different public policy considerations and rules as disseminating the same content to an unspecified number of third persons (public). Public content can have a greater effect on public opinion forming, can inflict more harm, and compete with other public information offers. This is why the AVMSD only applies to audiovisual content that is intended for reception by a significant portion of

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[129] European Parliament, *Draft report on the proposal for a directive of the European Parliament and of the Council amending Council Directive 89/552/EEC on the coordination of certain provisions laid down by law, regulation or administrative action in Member States concerning the pursuit of television broadcasting activities*, 1.8.2006, 2005/0260(COD), PE 376.676v03-00, Amendment 18.

[130] For a summary of the discussion see heise online, "Rundfunkregulierung in Zeiten des Internets und der digitalen Medien", press notice, 17 October 2008, online available at: http://www.heise.de/newsticker/Rundfunkregulierung-in-Zeiten-des-Internets-und-der-digitalen-Medien--/meldung/117516

[131] Article 1 (2)(c) of the draft implementation of the concessions made towards the EC in context with the EC's state aid investigations concerning ARD and ZDF (Arbeitsentwurf zur Umsetzung der Zusagen gegenüber der EU-Kommission im Rahmen des EU-Beihilfeverfahrens ARD/ZDF), 12 June 2008, online available at: http://www.rlp.de/rlp/binarywriterservlet?imgUid=9eb60641-d0e5-9a11-53a1-6e5c3899d11e&uBasVariant=33333333-3333-3333-3333-333333333333

[132] More general on the question of when consumers turn into producers in the legal sense, see P. Swire, "When Should "Consumers-as-Producers" Have to Comply With Consumer Protection Laws?", *Journal of Consumer Policy*, forthcoming (2008).

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the general public (see Part III, paragraph 3.2.2). As opposed, in case of content in the private sphere, private autonomy and respect of the constitutionally protected right to privacy weight generally heavier than a public interest in safeguarding the quality and safety of that content.

We explained earlier, that the AVMSD's basic assumption is that the activities of individual users are reserved to the private sphere and as such of no consequence to audiovisual law. This assumption might have been correct in pre-Internet and pre-UCC era. The very essence of UCC, however, is that the technology lowers the entry barriers for individual users to take over functions that so far have been reserved to professional service operators. Thanks to modern technology, users, too, can make "broadcasting"-like services of increasingly acceptable quality. A critical and yet open question is, how audiovisual law and policy will react to a situation in which audiovisual content created by individual users has a similar impact on competition and/or public opinion forming as "professional" audiovisual services.

Arguments in favour and against treating individual users as broadcasters or information society service provider

Even if amateur creators of UCC did, in principle, qualify as information society service providers or even broadcasters, the question still is whether it is adequate and justified to treat them in the same way as professional service providers. Even if an individual creator can deliver content of professional quality and interest, he still remains an amateur. In many instances, he will remain an individual amateur with limited legal knowledge, void of the financial resources to hire a legal department, and not necessarily trained to understanding the full (legal and economic) consequences of his acting. This is, of course, particularly true in the case of underage amateurs. UCC creators that take the opportunity of web 2.0 technologies to make their activities public are suddenly confronted with a whole set of legal and practical issues they might be not aware of. This does not take away the fact that the activities of an individual can be equally harmful, misleading or offensive as if a professional conducted them. Still, more discussion is needed when an individual UCC creator should be treated the same way as a professional entity, and where the law should take a more lenient approach.[133] Possible criteria in this discussion could be the costs of regulatory burdens, the actual and potential harm, the ability of individual users to avoid law infringements, the commercial profit users derive from amateur activities, the reach and public attention that they generate, the degree to which they compete with professional services, etc.

3.5.2. Professional privileges and amateurs

The professionalism of the activities of citizen journalists and amateur broadcasters (see Part III, paragraph 3.5.1) is relevant for another reason. Media law is not only about responsibilities and liabilities, it is also about privileges. To begin with, the media benefits from a constitutional protection from censorship. Moreover, journalists enjoy under national media laws various specific privileges with the goal to make their task easier and support the functioning of the media. Examples are rights of access to government information and privileges under data protection law or in criminal law procedures, such as the privileges in defence of defamation. A broadcaster related privilege is e.g. the right to short reporting. The question of whether a citizen journalist qualifies for a media privilege can differ from country to country, from case to case and, of course, from privilege to privilege. For example, the German provisions that protect the right of journalists not to disclose their sources only apply to professional journalists.[134] The law of other member states might be more lenient on that question.[135] Note, that because media privileges are still widely a matter of national law, this study can address the issue only in a very general way.

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[133] For a valuable exploration of when users should be treated as producers with respect to a number of US consumer protection laws, see the article by Swire 2008.

[134] For example, the German Art. 53 (1) No. 5 of the StPO (Strafprozessordnung – code of criminal procedure), which protects the right of journalists not to disclose their sources, applies only to professional journalists and others involved in the preparation, production and distribution of broadcasting, press products, and other information and communication services. Amateur creators, such as citizen journalists are excluded from the scope of the privilege, see M. Löffler and R. Ricker, *Handbuch des Presserechts*, 2nd edition, Beck, Munich, 1986, p. 163.

[135] See e.g. for a discussion of the situation in the UK, A. Flanagan, "The blogger as journalist under UK law", 10 *Communications Law* 2005, p. 125 subsq. In Belgium, the Belgian constitutional court found in a judgment of 7 June 2006 that

Opening up traditional media privileges for amateurs that do very similar things than professionals, namely to inform or entertain the public, might be a reasonable thing to do. Properly functioning citizen journalism can be, and already is a valuable addition to traditional journalism.[136] As such, citizen journalism and user participation deserves to be encouraged by all means. Upon a close look, however, some caveats are in place. What are the consequences, if each of us indeed qualifies as journalist, together with millions of other citizen journalists? The result could place heavy burdens on third parties and public institutions. For example, while many national laws have granted journalists specific rights of access to government information, public institutions might become dysfunctional if every blogger on the Internet was permitted to spam public institutions with individual information requests, the more where the information requested is sensitive. Another example is press exemptions in national data protection laws. Member States may foresee reduced responsibilities regarding the processing of (sensitive) data, for journalistic, artistic or literary purposes.[137] Extending these exemptions to all bloggers and creators of UCC in general (that is potentially the entire Internet population) would render existing privacy laws factually meaningless, and open the doors widely for massive abuses of personal data.[138]

These are arguments in favour of limiting the scope of privileged parties. The difficult question, however, is where and how to draw the dividing line? Alternatives are an institutional approach (only employees of an official media company or members of a professional association qualify for privileges) or a functional approach (everyone who adheres to certain journalistic principles can be privileged).[139] Arguments for an institutional approach could be legal certainty and ease of use, especially for the victims of infringing activities. This approach would, however, neglect the journalistic potential of citizen journalists, and their possible watchdog function. It was, moreover, no guarantee for the quality and accuracy of "professional" journalism. Arguments in favour of a functional approach are the wish to signal a positive attitude towards citizen journalism, to avoid a general lowering of standards in journalism and to stimulate competition between professionals and amateurs.[140] A functional approach might also create incentives for amateur and professional journalists to observe a high standard of journalistic diligence. Finally, a functional approach would also be in line with the case law of the European Court of Human Rights that stresses the importance of journalistic ethics in traditional and electronic media.[141] According to the European Court of Human Rights, the safeguards of Art. 10 ECHR are not afforded automatically to the journalistic profession as such but only to those journalists that "are acting in good faith and on an accurate factual basis and provide reliable and precise information in accordance with the ethics of journalism".[142] General principles along those lines could be elaborated under the premise that anyone who adheres to these principles should also qualify for privileges attached to journalism.[143] First initiatives in this field are the Blogger's Code of Ethics and the Blogger's Code of Conduct which seek to adapt established journalistic standards for bloggers.

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limiting the protection of journalistic sources to professional journalists constituted an infringement of free speech provisions in the Belgian Constitution and the European Convention on Human Rights, discussed in E. Werkers, E. Lievens & P. Valcke, "Bronnengeheim voor bloggers", 147 *Nieuw Juridisch Weekblad* 2006, p. 147, 630-636. For a more general discussion, see R.D. Eliason, "Leakers, Bloggers, and Fourth Estate Inmates: The misguided pursuit of a reporter's privilege", 24 *Cardozo Arts & Entertainment Law Journal* 2006, p. 385, 433 subsq.

[136] For a multidisciplinary exploration of the potential, challenges and drivers of citizen journalism see e.g. the Fleet Project – Flemish E-Publishing Project, website with further information, deliverables, etc. online available at: http://www.fleetproject.be/nl/home/

[137] Conform with Art. 9 of Directive 95/46/EC of the European Parliament and of the Council of 24 October 1995 on the protection of individuals with regard to the processing of personal data and on the free movement of such data, OJ L 281, 23.11.1995, p. 31–50, see also section 5.2 of this study. Article 9 of Directive 95/46 reads: "Member States shall provide for exemptions or derogations from the provisions of this Chapter, Chapter IV and Chapter VI for the processing of personal data carried out solely for journalistic purposes or the purpose of artistic or literary expression only if they are necessary to reconcile the right to privacy with the rules governing freedom of expression." See for a concise case study of the Netherlands, T. Schiphof, "De onduidelijke journalistieke exceptie in de Wet bescherming persoonsgegevens", 5 *Mediaforum* 2008, p. 208 subsq.

[138] For a critical analysis see also also E. Dommering, "Noot bij van Gasteren/Hemelrijk, Dutch Hoge Raad", 18 January 2008, *NJ Nederlandse Jurisprudentie* 2008, p. 274; Eliason 2006, p. 434 subsq.

[139] For an overview of the discussion and the different arguments see Flanagan 2005, p. 126; Eliason 2006, p. 429 subsq. .

[140] Dommering 2008, sec 2.

[141] In this sense e.g. D. Voorhoof, "Krijgen jouranlisten een streepje voor in Straatsburg?", 5 *Mediaforum* 2008, p. 197, 200 subsq.

[142] European Court of Human Rights, *Case of Stoll v. Switzerland*, 10 December 2007, Application No. 69698/01, paragraphs 103 and 104.

[143] See e.g. the ongoing project on O'Reilly, "Call for a Blogger's Code of Conduct", online available at http://radar.oreilly.com/archives/2007/03/call-for-a-bloggers-code-of-co.html . G. Schuijt, "De juridische relevantie van de begrippen 'journalist' en 'journalistieke werkzamheden", 5 *Mediaforum* 2008, p. 191 subsq. (discussing under which conditions

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In sum, while the majority of the activities of UCC creators will either not reach the scale that is necessary to qualify as service or is not intended for reception by the public, it is possible that the activities of some amateurs are considered audiovisual media services or information society services. Yet undefined and largely unexplored is the threshold from which on the activities of users are not any longer of an "accidental nature", but "professional" and, in the case of the application of the AVMSD, "public" in nature. The extent to which the application of media law to individual users is justified depends on the nature of the law in question, but also on what can be reasonably expected from individual amateurs. Vice versa, amateurs might qualify for some of the privileges granted to the professional media. The circle of privileged users should remain restricted to amateurs that adhere to professional journalistic standards and ethics.

3.6. General laws

As anybody else, UCC platforms and users are subject to the general laws of the respective country in which they operate. Because these rules have not been harmonized so far, or only in parts,[144] the following section can give only a very cursory overview of some basic lines and principles that are probably common to most national systems.[145] One possible consequence from the lack of harmonization is that the applicable laws can vary across the different member states. Another possible side effect of the lack of harmonization can be territorial fragementation. In situations where sites operate with filters to restrict access to unlawful material, users of some countries may not be able to access portions of the content on a platform that users from countries with more liberal laws can access.[146]

A basic distinction can be made between rules in national civil and criminal law. Most national civil laws will include some rules with regard to content that infringes personality rights and economic interests, for instance protection from unfair competition and misleading advertising. Penal law provisions will typically include rules on defamation, hate speech, pornography, libel and privacy intrusions (about the latter, see Part III, section 5.5). One important question that would need further research is to what extent existing national laws are apt to cover UCC-specific problems (respectively problems that are particularly relevant in a UCC context), such as cyber bullying, identity theft, shaming, bashing, pushing, etc.

In case of claims made on the basis of civil law, aggrieved parties will typically be entitled to file claims for injunction, damages, return of profit, the right to publish a correction or a reply and sometimes also the obligation to publish judgements saying that a particular content infringes the rights of a third party. The type of sanction imposed also will depend on whether the act was committed with or without fault. The violation of penal laws can usually be sanctioned with fines (including monetary fines) and prison.

As a matter of principle, it is in the first place the author of an infringing content that will be held liable for violations of the relevant provisions in civil and criminal law, that is the original creator of user created content. This is also true in situations where the author is not a professional content producer,

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citizen journalists should be regarded as journalists). See also B. Alexander, "Looking Out for the Watchdogs: A Legislative Proposal Limiting the Newsgathering Privilege to Journalists in the Greatest Need of Protection for Sources and Information", 20 *Yale Law and Policy Review* 2002, p. 124, p. 130 subsq. (with concrete suggestions for a Journalist's Privilege Statute); L.L. Berger, "Shielding the Unmedia: Using the Process of Journalism to Protect the Journalist's Privilege in an Infinite Universe of Publication", 39 *Houston Law Review* 2003, p. 1371, 1406 subsq., with more suggestions for a functional definition.

[144] For example, according to the EU Framework's decision on child pornography, member states must adopt rules that declare the production, distribution, dissemination, transmission, or making available of child pornography inter alia by means of a computer system, punishable. The same is true for the acquisition and possession of child pornography (Art. 3 of the *Council Framework Decision 2004/68/JHA of 22 December 2003 on combating the sexual exploitation of children and child pornography*, OJ L 13, 20.01.2004, p. 13).

[145] A good overview of the national rules on label, defamation and insult can be found at Council of Europe, "Legal provisions concerning defamation, libel and insult. Brief overview of related legislation in selected European countries", 12 December 2003, online available at: http://www.coe.int/t/e/human_rights/media/4_documentary_resources/DH-MM(2003)006rev_en.asp#TopOfPage

[146] For example, Flickr users with a German ID are apparently prevented from access to content that other users qualified as "restricted".

but an amateur. Now that individual users "publish" their communications and creations on the Internet, they also move more visibly into the radar of public prosecutors. This is even so where users, as often will be the case, are unaware that they violate existing legal rules. Another, yet open question is to what extent users that create and distribute informational content qualify for the codes of practice and media-specific duties of care (but also the privileges) that apply in some countries to the media and journalists (see also Part III, paragraph 3.5.2).

The general laws also apply to UCC platform operators.[147] If the operator of a UCC platform publishes own defamatory material on his site, he is liable under the general provisions of the national penal code about defamation. Another question is the liability of UCC platforms for content that users publish. Some national criminal and civil laws also know media specific rules that sanction e.g. the dissemination of unlawful or harmful material, even if it is material that originates from unaffiliated authors.[148] These rules, too, could apply to UCC platforms. Much will depend on whether judges apply the rules that govern traditional media also to UCC platforms and/or whether the platform's operator had knowledge of the illegal content or activity. UCC platforms could also be held liable as a matter of contributory liability that is if courts found that they assisted or induced third parties in publishing illegal contents.[149] Some member states also stipulate specific duties of care for content publishers (press, broadcasters, etc.) to make sure that the content that they distribute is accurate and legitimate. For example, German law knows specific duties of editors and publishers to monitor publications and make sure that they are free from illegal content.[150] Failure to comply with this duty can even result in liability for the content that originates from others.[151] Similar principles exist in other European member states.[152] More research is needed to what extent these provisions also apply to UCC platforms.

Having said, liability for user created content is not a subject matter that is alien to the traditional media. For example, user created content on traditional broadcasting channels has already existed for some time, for example in form of community channels or "offene Kanäle". These are channels or frequencies that are open to amateur users/citizens. Community channels are often subject to specific rules that regulate the liability for the lawfulness of users' contributions, and that address eventual monitoring and sanctions in case of abuse. The existing regulations of community channels could provide useful inspiration also in the discussion regarding the liability of UCC platforms for amateur content, and merits further research. Similarly, questions of liability for individual statements in live transmissions, for readers' letters or private advertisements have forced courts already to deal with similar dilemmas in the context of traditional media, than UCC platforms face today: to what extent can a broadcaster or publisher be required to monitor all content that users provide, even if the scale is massive, what are the factual and technical possibilities to detect and to avoid infringing material (e.g. in case of a broadcasting life transmission), from which point on are monitoring duties unproportional

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[147] Löffler and Ricker, 1986, p. 324. Assemblée Nationale, *Rapport d'ínformation déposé en application de l'article 86, alinéa 8, du Règlement Par La Commission des Affaires Économiques, de l'environment et du Territoire, sur la mise en application de la loi no. 2004-575 du 21 juin 2004 pour la confiance dans l'économie numérique,* 23 January 2008, No. 627 [Assemblée Nationale 2008], p. 17.

[148] See e.g. Germany: Arts. 131 (dissemination of publications that depict violence) and 184 (dissemination of pornographic material) StGB (Germany Penal Code); Netherlands: Art. 132 Wetboek van Strafrecht (Dutch Penal Code) (dissemination of publications that incite to unlawful behaviour or resistance against the public order).

[149] This was, for example, the argument in a case againg YouTube, Viacom International Inc., Comedy Partners, Country Music television, Inc., Paramount Pictures Corporation and Black entertainment Television LLC vs YouTube, Inc. YouTube, LLC, and Google Inc., Complaint for declaratory and injunctive relief and damages, United States District Court for the Southern District of New York, Note 36.

[150] See § 20 (2) German Landes Presse Gesetz (State Press Law): „ Strafrechtliche Verantwortung (1) Die Verantwortlichkeit für Straftaten, die mittels eines Druckwerks begangen werden, bestimmt sich nach den allgemeinen Strafgesetzen.

(2) Ist mittels eines Druckwerkes eine rechtswidrige Tat begangen worden, die einen Straftatbestand verwirklicht,so wird, soweit er nicht wegen dieser Handlung schon nach Absatz 1 als Täter oder Teilnehmer strafbar ist, mit Freiheitsstrafe bis zu einem Jahr oder mit Geldstrafe bestraft 1. bei periodischen Druckwerken der verantwortliche Redakteur, wenn er vorsätzlich oder fahrlässig seine Verpflichtung verletzt hat, Druckwerke von strafbarem Inhalt freizuhalten,

 2. bei sonstigen Druckwerken der Verleger, wenn er vorsätzlich oder fahrlässig seine Aufsichtspflicht verletzt hat und die rechtswidrige Tat hierauf beruht." See more in detail J. Soehring, *Das Recht der journalistischen Praxis*, AfP Praxisreihe, Schäfer Verlag, 1990, p. 342; Löffler and Ricker 1986, p. 99.

The application of these rules to the case of UCC platform would depend on the question if UCC platforms would fall under the scope of the relevant national provisions, a question that cannot be further examined in this context.

[151] See e.g. 19 (2) Landes Presse Gesetz.

[152] E.g. France: Art. 93-2 subsq. of loi du 29 juillet 1982 sur la communication audiovisuelle; Netherlands: Art. 48, 71e (1) Mediawet.

and threaten the functionality and economic validity of the media etc.?[153] In response, courts in some member states have developed a more differentiated approach to the liability of some traditional media for user created content: in situations where the role of the media is to provide a forum for content of third parties, rather than their own, it can be justified to impose only limited responsibilities with regard to third party content. Typically, these reduced liabilities will include the monitoring prior to publication for manifestly unlawful material or the obligation to assist in identifying the original author of unlawful material.[154] Somewhat different is the approach of the recently amended guidelines of the Dutch Press Council. The guidelines stipulate that the editorial board is responsible for contents of third parties but cannot be expected to control all reactions and letters distributed prior to publication. Only if notified to defamatory content, the editorial board is obliged to examine *post-publication* the lawfulness of the publication, and eventually remove it (similar to the obligations that apply to hosting services, see Part III, section 4.2).[155]

At present, the strategy of many UCC platforms is to allocate the responsibility for the legitimacy of UCC in the first place with users, i.e. the original authors. Most of the sites analyzed encourage users to refrain from posting illegal content on their site, and if only in form of a declaratory statements they remind users to observe the general laws that apply to them (e.g. the Terms of Use of Dailymotion). Other UCC platforms may be more specific. They present users with elongated, often declaratory[156] lists of possible forms of illegal conduct (see e.g. Last.fm, [157] Mobango and MySpace). Community guidelines might also ban harmful or otherwise undesirable behaviour, including activities that are not (yet) subject to national laws. Some sites make in their terms of use compliance with legal norms part of the user agreement. For example, to use Last.fm users must agree not to place any libellous, defamatory, illegal or offensive material on the website (similarly MySpace). If users fail to do so and are detected, Last.fm reserves the right to suspend or terminate the user's right to use the website. To a similar effect, Flickr prohibits its users to act contrary to the law.

3.7. Analysis and Conclusions

As a result of the recent expansion of the AVMSD, which now also covers interactive internet services, operators of UCC platforms and even individual users can, in principle, fall under the scope of European audiovisual law. There is still little experience how the expansion of European broadcasting law into the Internet will affect UCC platforms, and more general all audiovisual on demand services. Much will depend on how member states interpret and transpose the directive's provisions into national law.

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[153] See also the European Court of Human Rights who noted that a "general requirement for journalists systematically and formally to distance themselves from the content of a quotation that might insult or provoke others or damage their reputation is not reconcilable with the press's role of providing information on current events, opinions and ideas", European Court of Human Rights, *Case of Thoma v. Luxembourg*, 29 March 2001, Reports of Judgments and Decisions 2001-III, paragraph 64.

[154] See S. L. Pankoke, *Von der Presse- zur Providerhaftung*, Beck, München 2000, p. 78 subsq. , with reference to case law. U. Jürgens, "Von der Provider- zur Provider- und Medienhaftung", 3 *ComputerRecht* 2006, p. 188, 189. Löffler and Ricker 1986, p. 266; A Hayward, "Regulation of Blog Campaign Advocacy on the Internet: Comparing U.S., German and EU Approaches", *Cardozo Journal of International and Comparative Law* (JICL), forthcoming, online available at http://papers.ssrn.com/sol3/papers.cfm?abstract_id=1008928, p. 13. In this sense also the German Federal High Court of Justice (Bundesgerichtshof – BGH), 6 April 1976, No. VI ZR 246/74 (*Panorama*). On the question under which conditions these principles could be applied to an online fora: Regional Appeal Court Düsseldorf (Oberlandesgericht – OLG), 26 April 2006, No. 1-15 U 180/05, online available at http://www.aufrecht.de/index.php?id=4727. The BGH, however, has repealed the decision of the OLG Düsseldorf, arguing that unlike the broadcaster in case of a life transmission, the operator of a forum controlled the offer ("Herr des Angebots") and was able to remove infringing contents, BGH, 27 March 2007, No. VI ZR 101/06 (*Haftung für fremde Forums-Einträge*), online available at http://www.foren-und-recht.de/urteile/-Bundesgerichtshof-20070327.html. Another question that the BGH to the knowledge of the authors did not deal with yet is if a UCC platform such as YouTube, too, can be considered to control the offer, or if the quantity of user created content and the business model of the platform suggest a different line of reasoning.

[155] *Leidraad Raad voor de Journalistiek*, Arts. 5.4 and 5.5, online available under: http://www.rvdj.nl/rvdj-archive//docs/Leidraad%20RvdJ%20-%20aanpassing%20april%202008.pdf Critical about the application of different standards (i.e. the rules that apply, on the one hand to publishers, and on the other hand to online hosts) to press activities and the resulting moral confusion, E. Dommering, *Gevangen in de waarneming*, Otto Cramwinckel, Amsterdam 2008, p. 23-24.

[156] Often, the lists mention as "illegal" not only content or activities that interfere with existing law, but also such that contradict the platform's usage rules. For example, according to their terms of use, Mobango and MySpace also considers paid advertising and sponsorship illegal content.

[157] E.g. Last.fm's Artist and Label forum rules include a clause saying: "Material that is sexually or otherwise obscene, racist, or otherwise overly discriminatory is not permitted on these forums. This includes user pictures. Use common sense. We want to show this website to our mums."

Another question is if traditional audiovisual law fits the situation of UCC platforms (or on demand services in general). Qualifying UCC platforms as audiovisual media services also implies that they assume broadcaster-like responsibilities for the content that they disseminate, including content that users upload in own initiative. Considering the quantity of UCC and the fact that much of that content is uploaded under a pseudonym or anonymously, the application of audiovisual law can pose in practice considerable obstacles for the activities of UCC platforms. The legal burden will affect in particular smaller, commercially not profitable UCC platforms that are operated by amateurs or entities with limited financial and technical resources. Apart from practical difficulties in carrying out the obligations from audiovisual law, the question remains whether the existing provisions fit the situation of UCC platforms. Possible candidates for rules that do not fit are the quota of European works to be included in a "programme", some of the advertisement rules, but also national, not yet harmonized rules about media ownership or pluralism. Moreover, many UCC platforms carry video as well as other user created content (e.g. music or text), with the consequence that different standards apply for different types of content.

Finally, audiovisual law is not prepared to address other problems that are relevant in the UCC context. Probably the most pressing example is how to share fairly and effectively the responsibilities of UCC platforms and users for the lawfulness and adequacy of user created content. More generally, more discussion is needed when users function as publishers, and accordingly should also participate in the obligations and privileges of professional publishers of media content. Normative definitions of "broadcaster", "journalist", and "consumer" need to make way for a more functional approach.

4. Liability exemptions for UCC platforms

4.1. Introduction

Larger UCC platforms already contain millions of videos and music files, and each day hundreds or even thousand new files are added.[158] Probably, some of these files include unlawful content: music videos that infringe upon copyright law, films that show pornography, music with defamatory texts, hate speech, etc. A question of vital importance for the organization, and sometimes even for the economic viability of many UCC platforms is to what extent such platforms are liable for unlawful content posted by users.

The liability for third party content is a difficult problem in information law. Deciding about the extent to which information services can be required to monitor and "censor" third parties' material is a matter of finding the right balance between a number of important, often constitutionally protected interests and rights. On the one hand, there are arguments of consumer and citizen protection, protection of the public legal order, as well as of the social responsibility of the media. Traditionally, arguments of the "social responsibility of the media" are stronger for some media (broadcasting, newspapers) than others (electronic discussion fora, auction sites, etc.). Arguments of effectiveness and proportionality also play a role. Injured parties can find it often very difficult if not impossible to get hold of the original contributor of an infringing content. This is particularly true where the original contributor is settled abroad or has acted in anonymity. In these situations it can be far more promising to bring an action against not the original author of a content, but against its broadcaster, ISP or host. They might be more easily identifiable and often they have not only the possibility to terminate the infringing activity but also the necessary financial resources to compensate the victim. On the other hand, while it might be justified to impose certain monitoring and policing duties on some information service providers, imposing the same duties on others can not only expose these to incalculable legal and financial risks. It could also exceed their technical, personal and financial capacities. Typically, these are providers with no or limited involvement with the content of third parties, such as hosting services and access providers. They offer predominantly technical services, often to a large number of users.

Information law has developed different models of liability for third party content. At the one end of the spectrum are the strict monitoring duties and duties to care that apply to traditional broadcasters and news publishers. European and national media laws stipulate elaborate duties of care for the lawfulness of content that is published, even if that content has not been produced and disseminated under the editorial control of the broadcaster or publisher in question (see in more detail Part III, paragraph 3.2.1).[159] At the other end of the spectrum are the provisions that indemnify certain categories of technical information service providers from liability for infringing activities of their users. As the European Commission observed, limiting the liability of certain services for the lawfulness of third party content is

"indispensable to ensuring both the provision of basic services which safeguard the continued free flow of information in the network and the provision of a framework which allows the Internet and e-commerce to develop."[160]

This is the reason why the E-Commerce Directive stipulates liability exemptions for three categories of activities of information society service providers: the provision of access (ISPs), caching and hosting (storage). Most member states have transposed the respective provisions quite literally.[161]

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[158] For example, the total number of videos uploaded on YouTube in March 2008 was 78.3 Million, each day over 150.000 new videos are being added, M. Wesch, "YouTube Statistiscs, Digital Ethnography", 18 March 2008, online available at: http://mediatedcultures.net/ksudigg/?p=163

[159] For an in depth explanation of e.g. the situation in Germany see e.g. Pankoke 2000, p. 59 –93. L. Rhode, *Publizistische und redaktionelle Rechtspflichten*, Beck, 2004, p. 117 – 129, with reference to case law.

[160] European Commission, Report from the Commission to the European Parliament, the Council and the European Economic and Social Committee, *First Report on the application of Directive 2000/31/EC of the European Parliament and of the Council of 8 June 2000 on certain legal aspects of information society services, in particular electronic commerce, in the Internal Market (Directive on electronic commerce)*, Brussels, 21.11.2003, COM(2003) 702 final 2003, p. 12-13 [European Commission 2003].

[161] See European Commission 2003, p. 13.

The following chapter examines under which conditions UCC platforms qualify for the application of the existing exemptions from liability for third party content. After some general remarks about Articles 12-14 of the ECD (Part III, section 4.2), we will analyze in section 4.3 the different criteria of Article 14 of the ECD (liability of hosting services) in the light of UCC platforms. Note that it is not the intention of this article to perform a general discussion of Article 14 and add to the extensive literature that already exists insofar. Instead, we will focus on selected aspects of particular importance in the context of UCC. Finally, section 4.4. provides a final analysis and some conclusions.

4.2. Some general observations about articles 12-14 of the ECD

Articles 12-14 of the ECD are horizontal in nature, meaning that they cover different types of illegal content (content that infringes copyright laws, defamation laws, provisions on the protection of minors, privacy laws, unfair commercial practices, etc.) as well as different kinds of liability (civil/criminal as well as direct/indirect liability).[162] Articles 12-14 of the ECD deal with the exclusion from liability; they are no legal grounds for establishing liability. The latter is a matter for the national rules on copyright law, defamation, pornography, unfair commercial practices, etc. (see Part III, sections 3.6 and 5.5). Note that if an information service does not qualify for the ECD's liability exemptions, this does not automatically imply full liability under national laws; again it depends on what national laws have to say.[163]

A basic principle of the liability exemptions is that the ECD prohibits member states to impose general monitoring obligations or general obligations for ISPs, hosts and services that cache information to actively seek facts or circumstances that indicate unlawful activities.[164] Having said this, the directive leaves it to member states to specify duties of care that can reasonably be expected from intermediaries in order to detect and prevent certain types of illegal activities.[165]

The ECD in general, and its provisions on liability for the content of third parties in particular, apply to information society services (see Part III, chapter 3.3). The ECD is not applicable to broadcasting services in the sense of Directive EEC/90/552 as amended by the AVMSD.[166] A possible source of legal uncertainty is the fact that the new AVMSD has broadened the scope of the original Television Without Frontiers Directive, while the ECD still refers to the former version of the AVMSD. As a result, the delineation between both, the ECD and the AVMSD has become less clear-cut, and some overlaps exist with respect to on-demand video services. One could doubt whether as a result of the extension of audiovisual law, audiovisual on demand services still fall under the ECD. Apparently, the makers of the AVMSD have consciously opted for subjecting non-linear audiovisual media services to a stricter regime, similar to broadcasting services. Having said this, the ECD in its existing, pre-AVMSD-form, explicitly includes video-on-demand services.[167] Moreover, recital 23 of the AVMSD specifies that the AVMSD be without prejudice to the exemptions from liability under the ECD.[168] In practice, the existing uncertainty will be probably of little consequence. The definition of an on demand audiovisual media service requires an element of editorial control (Art. 1 (a), (c), (g), recital 23), in

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[162] M.H.M. Schellekens, *Aansprakelijkheid van Internetaanbieders,* Legal Dissertation, Tillburg, 2001, p. 216. In this respect, the legal situation differs from that in the US, where different liability (exemption) regimes exist for different kinds of liability, see J. van Hoboken, *Legal space for innovative ordering*, paper presented at the EuroCPR conference, 31st March- 1st April 2008, Seville, p. 7 subsq. and p. 12 subsq.

[163] See e.g. van Hoboken 2008, p. 8 subsq.; OECD 2007, p. 87.

[164] See Article 15, Recitals 47 and 48 of the ECD.

[165] Recital 48 of the ECD. Critical as to the relationship between Art. 15 ECD and recital 48 of the ECD see R. Julià-Barceló and K.J. Koelman, "Intermediary Liability In The E-Commerce Directive: So Far So Good, But It's Not Enough" , 4 *Computer Law & Security Report* 2000, p. 231-239.

[166] Recital 18, Art. 2 (a) of the ECD.

[167] Recital 18 of the ECD.

[168] See also European Parliament, Draft report on the proposal for a directive of the European Parliament and of the Council amending Council Directive 89/552/EEC on the coordination of certain provisions laid down by law, regulation or administrative action in Member States concerning the pursuit of television broadcasting activities, 1.8.2006, 2005/0260(COD), PE 376.676v03-00, Amendment 11: "To that extent this Directive [the AVMSD] builds on Directive 2000/31/EC in these areas for a specific subset of non-linear audiovisual services which are of particular importance for society and are characterised by their cultural dimension. For these services the degree of coordination of national rule is higher and the internal market is more complete."

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which case the exemption from liability for hosting services is excluded by definition (see more about this in Part III, paragraph 3.2.2).

In the case of UCC platforms, the liability exemption that is most likely to apply is the one about storage of third parties content according to Article 14 of the ECD.[169]

4.3. Applicability of article 14 of the ECD to UCC platforms

According to Article 14 of the E-Commerce Directive, information service providers whose

a) service consists of the storage of information (hosting service) and who

b) have no actual knowledge of illegal activities or information (or, in case of damages, of facts or circumstances from which the illegal activity or information is apparent) or who, upon such knowledge act expeditiously to remove or to disable access to the information

c) are not liable for information stored at the request of a recipient of that service.

In the following section, we will examine if, and if yes, under which conditions UCC platforms can benefit from the liability exemption in Art. 14 of the ECD.

4.3.1. Qualification as a hosting provider

To benefit from the liability exemption in Art. 14 of the ECD, UCC platforms would need to qualify as "hosting services" in the sense of this provision. The ECD defines hosting services as services that "consist of the storage of information provided by a recipient of the service", Article 14 (1) ECD. Hosting services in the sense of the ECD are only services whose activities are

"of a mere technical, automatic and passive nature, which implies that the information society service provider has neither knowledge of nor control over the information which is transmitted or stored".[170]

Examples of hosting services in the sense of the directive are email or web-hosting services, that is services that rent server space for certain web applications.

The question of when an UCC platform qualifies as hosting services is not an easy one to answer.[171] It can certainly not be answered in general; the decision will depend on the individual business model of a platform. The more a UCC platform is involved with the content that it hosts, the less likely it is to qualify as hosting service. The difficult question is to determine the turning point at which UCC platforms are not any longer mere hosts, but "publishers" in the sense of national media laws (with the consequence that they can be fully liable for the content posted by third parties).

The literature and, to the extent they exist, court judgements are divided about the parameters that determine whether a UCC platform is a host or a publisher. Probably the least problematic are situations in which a UCC platform actively monitors and selects user created content before placing it on the site. Such platforms do more than mere technical hosting, they have control over the contents stored and it is likely that courts will find that they do not qualify for the application of Art. 14 of the ECD (respectively the national provision that implements Art. 14 of the ECD). [172] A possible example could be many citizen journalist sites, such as OhmyNews, where editors read each submitted story. Similarly, Dailymotion monitors and labels the submissions from so called MotionMakers before placing them on the site. Along the same lines, it has been argued that UCC platforms that invite particular types of content, e.g. content with regards to a particular theme or region or events, or that conclude licensing deals with (professional) content providers (for examples, see Part III, paragraph 3.2.2) do not qualify as hosting services.[173] UCC platforms that present user created content as part of

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[169] The ECD defines hosting services as services that consist "of the storage of information", recital 46.

[170] Recital 42 of the ECD.

[171] In this sense also OECD 2007, p. 86

[172] In this sense e.g. U. Jürgens and R. Veigel, "Zur haftungsminimierenden Gestaltung von 'User Generated Content'", 3 *Archiv für Presserecht* 2007, p. 183, N. Jondet, "The silver lining in Dailymotion's copyright cloud", *Juriscom.net*, 19 April 2008, p. 10.

[173] S. Holmes and P. Ganley 2007, "User generated content and the law", 2 *Journal of Intellectual Property Law & Practice* 2007, p. 338, 340. Tribunal de Grande Instance de Paris, 13 July 2007 (*Nord-Ouest Production v Dailymotion*), ibid.

their own content offer might also no longer qualify for the hosting exemptions. [174] This could be, for example, the case for user created content that is included in the programme of an (online) "broadcasting" transmission (e.g. Last.fm).

More difficult is the question of whether already the abstract reservation of usage rights in the content produced by users provides sufficient ground to argue that the business model of the respective UCC platform is directed at more than mere hosting.[175] On the one hand, requiring users to authorize the usage of their content for certain uses might be a necessary precondition for operating the platform. This is the result of existing copyright law that determines that even purely incidental acts of copying are in principle reserved upon the authorization of the author. Having said this, in such situations Art. 5 (1) of the EUCD will apply. This is a provision that exempts instances of incidental copying from the need of securing prior authorization. One could also argue that the act of securing certain usage rights does not in itself imply that the platform will actually use these rights in order to exploit the content (in which case the service might not any longer be a mere hosting service). On the other hand, the reservation of commercial exploitation rights might point to the fact that the business model of the site is directed at more than just technical storing. Having said this, there is a controversial discussion of the question of whether the fact that a UCC platform earns revenues with the content itself (e.g. by reselling it to third parties) rather than with the hosting of such content already excludes the application of the liability exemptions for hosting services.[176] Equally controversial is the question of whether already the fact that a site offers rough structures for users in which to place their contents would be an indicator of direct involvement with the content and speak against the qualification as mere storage service.[177]

An interesting, and in the context of UCC obviously relevant question is to what extent "user executed control" over the content can be attributed to the operator of the UCC platform with the effect that it disqualifies the site for the application of liability exemptions.[178] Much will depend on how the relationship user-UCC platform is designed and if the user can be said to be commissioned or otherwise instructed by the site's operator, or whether users act more or less independently.[179]

In sum, it is difficult to make any general statements of whether UCC platforms fall under the scope of Art. 14 ECD, respectively the national provisions that implement Art. 14 ECD. It will be for national courts to decide this question on a case-to-case basis. Adding to the legal uncertainty is a controversial discussion of the criteria that are decisive for qualifying a UCC platform as either "hosting service" or publisher. As a result, court decisions could vary for the same service from court to court, and from member state to member state.

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[174] In this sense e.g. OLG Hamburg, Urteil v. 26.09.2007 (Haftung für fremde Bilder-Uploads), Application No. 5 U 165/06; Pankoke 2000, p. 106.

[175] See Tribunal de Grande Instance de Paris, 13 July 2007 (*Nord-Ouest Production v Dailymotion*), ibid.

[176] In this sense Tribunal de Grande Instance de Paris, 5 June 2007 (*Lafesse v MySpace),* ibid; Court d'appel de Paris, 7 June 2006, (*Tiscali Media vs. Dargaud Lombard*), online available at http://www.legalis.net. Also R. P. Latham, C.C. Butzer and J.T. Brown, "Legal Implications of User-Generated Content: YouTube, MySpace and Facebook", 20 *Intellectual Property & Technology Journal* 2008, p. 7-8 (for the situation in the US). Different: Tribunal de Grande Instance de Paris, 15 April 2008 (*Lafesse et. al. vs Dailymotion*), online available at http://www.legalis.net, arguing that the law itself does not prohibit hosting services to earn revenues, e.g. through advertising. See also Tribunal de Grande Instance de Paris, 13 Juli 2007 (*Nord-Ouest Production vs. Dailymotion)*, ibid, pointing out that the distinguishing factor is not whether or not a service1hether the operators of that service is personally "at the origin of the transmission" ("est personnellement à l'origine de la diffusion, raison pour laquelle il engage sa responsabilité). .

[177] For example, Regional Appeal Court Köln, 28 May 2002, No. 15U221/01 (*Steffi Graf*), *MultiMedia und Recht* 2002, pp. 548; Tribunal de Grande Instance de Paris, 5 June 2007 (*Lafesse v MySpace),* ibid: "elle ne se limite pas à cette function technique; qu'en effet, imposant une structure de présentation par cadres, quelle met manifestement à la disposition des hérbérgés"; Court d'appel de Paris, 7 June 2006, (*Tiscali Media vs. Dargaud Lombard*), ibid. Different: Tribunal de Grande Instance de Paris, 15 April 2008 (*Lafesse et. al. vs Dailymotion*), ibid, arguing that merely providing a structural context does not amount to editorial choice of the contents placed into that structure, this choice would remain with the user.

[178] For more detail see Jürgens &Veigel 2007, p. 185.

[179] Jürgens & Veigel gives as example of a situation in which no legally relevant link between site operator and user exists, a site that grants users "automatically" the status of a moderator after a certain duration of membership or amount of content contributed, Jürgens & Veigel 2007, p. 185.

4.3.2. Actual knowledge of illegal activities or information

In order to qualify for the application of Art. 14 of the ECD, the provider of a UCC platform must have no actual knowledge of illegal activities or information, Art. 14 of the ECD. In case of claims for damages, the platform operator must also not have had knowledge of any facts or circumstances from which the illegal activity or information was apparent. As it cannot be the intention of this study to repeat the extensive discussion of when hosting services can be expected to have knowledge of illegal activities or information, we will in the following concentrate on two aspects of the knowledge condition that are particularly relevant for the case of UCC.

A question that was raised in the course of legal proceedings was whether a UCC platform can be considered having knowledge if it made available to users tools for sharing videos (including unlawful videos) and if it benefited from these activities.[180] A problem with this line of thought is that, in practice, it would imply that all UCC sites could be supposed to have actual knowledge; the very business model of UCC is to offer tools for sharing content online. Another problem of "banishing" general-purpose technologies is that they can also be used to make perfectly lawful uses.[181] A serious risk of holding developers and distributors of web 2.0 technologies automatically liable for the activities of users is to discourage the development and use of web 2.0 technologies altogether.

A related question is to what extent UCC platforms can be considered "knowledgeable" if a right holder alerted them once to an infringement and the site did not succeed subsequently in removing content effectively and forever.[182] This question was, for example, subject to two proceedings against GoogleVideo's UCC platform.[183] In both cases Google took down infringing content that later reappeared on the Google Video site. On both occasions, the TGI Paris held that once informed of the illicit character of the content it was up to Google to put into place all means necessary to avoid new postings. One problem with this argument is that it could in practice result in a duty to prior monitor once a provider has been alerted to infringing material on his site (see also Part III, paragraph 4.3.4).

Another question is who can effectively bring infringements to the notice of a hosting provider, with the consequence that he has knowledge. Since hosting providers are under no general monitoring obligation (Art. 15 of the ECD), it will be in the first place through third parties that they become aware of any infringing content on their platforms. The question is if only injured parties can complain about unlawful content, or whether also third parties, notably users are entitled to report and make the operator of a UCC platform operator "knowledgeable". Note that many UCC sites already involve to some degree users into the process of monitoring content posted by other users. For example, Dailymotion offers next to each video a button "this video may offend" to report illegal content. Users are then given a choice to inform the operator if they complain about pornography, racism, violence, prohibited and copyright in content. Similarly, Yahoo's Flickr provides with each window a "report

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[180] In this sense: Tribunal de Grande Instance de Paris, 13 July 2007 (*Nord-Ouest Production v Dailymotion*), ibid. Similar arguments were brought forward in the complaint of Viacom against YouTube. There Vicaom asserted that YouTube had full knowledge of the presence of infringing material at its site, which was actually "part of a critical part of their business plan to drive traffic and increase YouTube's network, market share and enterprise value", *Viacom International Inc., Comedy Partners, Country Music television, Inc., Paramount Pictures Corporation and Black entertainment Television LLC vs YouTube, Inc. YouTube, LLC, and Google Inc*., Complaint for declaratory and injunctive relief and damages, United States District Court for the Southern District of New York, Note 36.

[181] Recalling the discussion in the US whether the provision of technologies that can be used to perform unlawful activities but also substantial non-infringing uses can be a reason to hold providers of such facilities liable for the actions of their users, see e.g. B.M. Frischmann, "Peer-to-Peer Technology as Infrastructure: An Economic Argument for Retaining Sony's Safe Harbor for Technologies Capable of Substantial Noninfringing Uses", *Journal of the Copyright Society of the U.S.A.* 2005, p. 329, subsq. ; J.C. Ginsburg, "Separating the Sony Sheep from the Grokster Goats: Reckoning the Future Business Plans of Copyright-Dependent Technology Entrepreneurs", *Columbia Public Law Research Paper* No. 08-166, 16 February 2008, H. Feld, "Viacom vs. YouTube, Breyer vs. Ginsburg", *Public Knowledge Blog,* 14 March 2007, online available at: http://www.publicknowledge.org/node/862.

[182] This question was subject to two proceedings against Google, Tribunal de Grande Instance de Paris, 19 October 2007 (*Zadig Productions v Google*), online available at http://www.legalis.net and Tribunal de Commerce de Paris, 20 February 2008 (*Flach Film et autres v Google France),* online available at http://www.legalis.net. In both cases Google took down infringing content which later reappeared on the Google Video site. On both occasions, the TGI Paris held that once informed of the illicit character of the content it was up to Google to put into place all means necessary to avoid new postings.

[183] Tribunal de Grande Instance de Paris, 19 October 2007 (Zadig Productions v Google), ibid., Tribunal de Commerce de Paris, 20 February 2008 (Flach Film et autres v Google France), ibid.

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abuse and copyright infringement" button. The button leads users to a form. Here users can choose whether they wish to report violation of Flickr community guidelines, copyright infringement, disturbing behaviour, pishing, spam or others. Moreover, all sites reviewed offer the opportunity to contact the provider of the site or a specialised unit of the service by email, telephone, fax or via a special form. In some cases, reporting is even turned into a contractual obligation of users. For example, users of Last.fm agree in the terms of use to report to Last.fm any libellous, defamatory, illegal or offensive conduct of other users, which comes to their notice. Failure to comply with this obligation, as with any other obligation from the contract, can prompt Last.fm to suspend or terminate immediately and without notice the user's right to use the site.

The ECD does not further specify who is entitled to give an effective notice.[184] Instead, it encourages member states and stakeholders in very general terms to develop "rapid and reliable procedures" (recital 40 of the ECD). Entitling users to report unlawful content on UCC platforms could form a potentially very effective form of "grass-root" policing (see more below). On the other hand, the larger the circle of persons that are entitled to notify allegedly illegal content is, and the less these persons are affected directly, the more likely are instance of abuse as well as wrong accusations.

In case one accepts that also (third party) users can notify an infringing content, the next question is then what are the formal requirements this notification must comply with. Are simple flagging mechanisms (indicating globally that "something is wrong" with that content) already sufficient, or should users be requested to submit more detailed information?[185] Again, European law is silent on that question. Note that hosting providers may need very different information to assess whether a content is unlawful or not, depending on the claim in question. In case of an infringement of copyright law, it might be necessary to know the original right holder, the activities that might have led to an infringement, whether these activities were authorized or not and the facts and details that are necessary to assess whether the allegedly infringing activity falls under the limitations of copyright law (e.g. private copying, incidental inclusion, use for purposes of satire, criticism or news reporting, etc.). In case of a defamation claim entirely different information is needed to properly assess the legitimacy of the activity or information in question. Only in few instances (e.g. child pornography), the unlawfulness of content will be obvious.

The lack of legal guidance is reflected in the present policies of UCC sites. At present, the majority of the sites reviewed do not specify what details users are required to report (e.g. no or only details are required e.g. by Last.fm, Mobango, Skoeps). One exception is the reporting about copyright infringements. In this case, most sites require users to submit a uniform set of detailed information, which reflects the requirements in US copyright law. Unlike Art. 14 of the ECD, Sec. 512 of the US Digital Millennium Copyright Act (DMCA) stipulates that in order to be effective a notice must include a physical or electronic signature of the person authorized to act on behalf of the owner, a description of the work that the user claims has been infringed, the location of the infringing content, contact information, a statement of good faith and a statement that the information is accurate, and the user is the copyright owner or authorized on the owner's behalf. Beyond the reporting about copyright infringements, only few sites have more elaborated information requirements, like the aforementioned examples of Dailymotion and Flickr. Their "report and abuse" procedures require users at least to indicate if they complain about pornography, racism, violence, prohibited and copyright in a content, pishing, spam or the violation of community guidelines, etc. Even more categories and sub-categories to select from are offered to YouTube users (see Annexes).

Despite the EC's encouragement of self- and c-regulatory measures in this field, only few of the self- and co-regulatory measures examined describe in more detail the information that needs to be provided. One of the few examples of a co-regulatory measure to deal with "report-abuse" procedures for other than copyright infringement, and probably also one of the most detailed procedures has been laid down in the Key Principles of Social Networking Sites of MySpace and Facebook (see Annexes).

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[184] The situation is different, for example, in the US. Here, the DMCA specifically requests that (in the case of alleged infringements of copyrights) the notifying party must be the author himself or a persona authorized to act on behalf of the author as injured party (sec. 512 (c) (3) DMCA).

[185] National rules such as Art. 6 of the French E-Commerce Law (loi no. 2004-575 du 21 juin 2004 pour la confiance dans l'économie numérique) are the exception. Art. 6 of the French E-Commerce law stipulates that for a notification to be valid, it must contain the details of the notifying party, the description of the facts and their location, the motivation behind the removal of the content with a mention of the legal provisions imposing it, and either a copy of the letter to the publisher or author of the content, or the justification of the reasons for which the latter have not been successfully contacted.

In the MySpace agreement, MySpace agrees to expand its "report image" functionality and provide users with the possibility to specify in a more detailed way why they are reporting content (pornography, cyberbullying and unauthorised use). Facebook has agreed to use an even more detailed report functionality that allows users to select from specific categories of abuse, including fake profile, underage user or non-network member, inappropriate contact, spam/scam/phishing, nudity or pornography, suicide threat, harassment, violence, attacks individual or group, etc.

4.3.3. Upon knowledge: expeditious removal of the infringing information

Once a hosting service has knowledge of infringing activities, he must act "expeditiously" to remove or to disable access to the infringing information (the so-called "notice and take down procedure"). Again, extensive literature exists that discusses in general the efficacy, proportionality and adequacy of such "notice and take down" procedures, and it is not task of this study to repeat this discussion.[186] It should be stressed, however, that public policy and constitutional concerns about private policing and the (automatic) removal of not evidently illegal content are also and especially valid for UCC. User created platforms are per definition platforms on which users express themselves, communicate and share information – activities that are subject to fundamental user rights to freedom of expression and privacy.[187] While these rights are usually safeguarded in relation to states, through the protection of fundamental rights and the national procedures established for this purpose, the position of users vis-à-vis private controllers is far less well established.[188] This may stress the importance of predictable and fair rules about the removal (and put back) of allegedly unlawful content. It also demonstrates the importance of well-defined and transparent procedures that balance public interests, the interests of parties whose rights are infringed as well as the interests of the original authors or posters of content.

One major challenge for UCC sites will be to ensure that their notice-and-take-down procedures are rapid and effective, but also that no lawful content is taken down, and that the sanctions imposed are proportionate.[189] A distinction needs to be made between manifestly illegal content, which needs to be removed immediately, and less obvious cases that require a prior legal check before removing the content or imposing any other sanction.[190] Another major challenge for UCC sites is to prevent intentional or unintentional abuses of reporting procedures. In this light, it is the more important to ensure that operators of UCC platforms also inform the author of the content in question that his content has been removed, and to offer to the author/poster of that content the opportunity to respond to the allegations.

The ECD provides again little guidance. The directive only states the rather evident, namely that such procedures must observe the right to privacy and freedom of expression.[191] The directive does not specify any further how this could be achieved in practice, how abuse can be prevented and if there are any further rights and legitimate interests of end-users and content providers that hosting

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[186] For a more in depth discussion see e.g. D. Rücker, „Notice and take down-Verfahren für die deutsche Providerhaftung? : Zur Begrenzung der Unterlassungshaftung von Online-Diensten durch das Verbot allgemeiner Überwachungspflichten" , 21 *Computer und Recht* 2005, p. 347 subsq. ; Holmes & Ganley 2007, p. 340, Julià-Barceló and K.J. Koelman 2000, ..., M. Yakobson, Copyright Liability of Online Service Providers After the Adoption of the E.C. Electronic Commerce Directive: A Comparison to U.S. Law, 7 *Entertainment Law Review* 2000, p. 144, 148 subsq.

[187] U. Sieber and M. Nolde, *Sperrverfügungen im Internet. Territoriale Rechtsgeltung im globalen Cyberspace*, Band 13 of the Schriftenreihe des Max-Planck-Instituts für ausländisches und internationales Strafrecht – Strafrechtliche Forschungsberichte, Duncker & Humblot, Berlin, 2008. pp. 79, pp. 227.

[188] In the absence of adequate legal obligations, private operators are not to the same extent obliged to observe the constitutional rights of third parties, as such rights usually apply in the vertical relationship citizen – state, see e.g. C. Volkmann, *Der Störer im Internet*, Beck, München 2005, p. 50.

[189] See also OECD 2007, p. 88.

[190] It is important to notice that the question of whether particular activities or contents or unlawful can be very difficult to answer, even for legal experts, and is usually reserved for courts to decide. The answer often will depend on the concrete circumstances of the case, and might differ from member state to member state (depending on the state of harmonization). Also, the unlawfulness of some contents will be less evident and more complicate to assess than for other contents, depending on the legal norms that are allegedly infringed. For example, cases of (child) pornography are more obvious than claims of defamation or copyright infringement. Usually it is reserved for courts to determine whether a content is unlawful. Moreover, in order to assess the legitimacy of interfering with the content posted by users other laws and legal principles need to be taken into account such as telecommunications, privacy laws and considerations of balancing of conflicting (constitutionally or legally protected) interests, as well as the proportionality and adequacy of eventual sanctions.

[191] See recital 40, 46 of the ECD.

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operators need to take into account when removing allegedly infringing contents (e.g. the right to have one's content put back once it has been found lawful). Instead, the directive leaves it to the member states, respectively stakeholders to develop appropriate procedures.[192] So far, only few member states have developed more detailed obligations regarding notice and take down procedures.[193]

A review of the most relevant existing self- and co-regulatory measures in this field (see Annexes) demonstrated that while some initiatives mention notice-and-take-down procedures, they commonly do so in general terms, leaving it to service providers themselves to (not) specify procedures in more detail. Procedures to balance the rights of allegedly infringed parties and of authors/posters of content in order to prevent that content is being removed without a legitimate reason are almost absent in the initiatives examined. One of the few exceptions are the principles for User Generated Content that state

"When UGC Services remove content pursuant to a notice of infringement, the UGC Service should (a) do so expeditiously, (b) take reasonable steps to notify the person who uploaded the content, and (c) promptly after receipt of an effective counter-notification provide a copy of the counter-notification to the person who provided the original notice, and, at its option, replace the content if authorized by applicable law or agreement with the Copyright Owner."

Having said this, the principles, while mentioning a counter-notification procedure, they do so in general and rather vague terms. No mentioning is made of the right to privacy, freedom of expression or other legitimate rights and interests of those whose content has been removed. They also reserve for platforms discretion to decide whether or not to put content back, even if it has turned out that such content is lawful, respectively authorized. Finally, the scope of the Principles is restricted insofar as they exclusively deal with notice-and-take-down procedures with respect to content that is claimed to be in conflict with intellectual property rights.

Virtually absent from the self- and co-regulatory initiatives examined are rules and procedures to guarantee the lawfulness of automated filtering solutions, and the rights of users whose content has been been filtered out without justification. Again, the principles for User Generated Content are a notable exception in that they at least acknowledge the problem. However, also the Principles stipulate but in very general terms that:

"Copyright Owners and UGC Services should cooperate in developing reasonable procedures for promptly addressing conflicting claims with respect to Reference Material and user claims that content that was blocked by the Filtering Process was not infringing or was blocked in error."

With regard to individual UCC platforms, only few individual UCC platforms lay down in own initiative more detailed procedures that a platform will follow once a user reports content. Most of the sites reviewed reserve the right to remove content even if it is not manifestly illegal. For example, YouTube reserves the right to

"decide whether Content or a User Submission is appropriate and complies with these Terms of Service for violations other than copyright infringement, such as, but not limited to, pornography, obscene or defamatory material, or excessive length. YouTube may remove such User Submissions and/or terminate a User's access for uploading such material in violation of these Terms of Service at any time, without prior notice and at its sole discretion."

Most sites are not transparent about what steps will be taken in order to assure that the rights of the original author or poster of the content are observed and content is not removed upon false or misguided notice. More detailed procedures such as in the example of Flickr are the exemption: depending on the topic Flickr users are either referred to the copyright section, a blocking tool (for conduct of members that made a user uncomfortable) or the administrator of a group (for behaviour of member in a group). Interestingly, Yahoo differentiates between content that is manifestly illegal, and other content. If content is manifestly illegal, Yahoo will take it down without prior notification, deactivate the account of the author and report to the competent public authorities. If the complaint

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[192] Recital 40 of the ECD.

[193] E.g. France: Art. 6 of Loi no. 2004-575 of 21 June 2004 pour la confiance dans l'économie numérique (LEN).

concerns content that is not manifestly illegal, Yahoo will not take the content down. Instead, it will invite the complainant to seize the competent authorities and invite the author to verify that the content complies with the terms. Another example is DailyMotion that specifies in detail also the counter notification procedures and provides for this purpose a special form. Similarly, YouTube describes extensively its counter notification procedure. Having said this, both YouTube and DailyMotion restrict their counter notification procedures to content that is in conflict with intellectual property law, following the rules of the US DMCA. More generally, to the extent that platforms provide for specific notice-and-take-down/counter notification procedures, in most cases these will concentrate on content that is in conflict with intellectual property rights. And even if sites provide for counter notification procedures, they commonly reserve the right to put content back at their own discretion.

Commonly, sites will sanction cases of illegal content with removal and eventually deactivation of the user account, often without a notice, explanation or refund (see e.g. the terms of use of Mobango, Last.fm, MySpace, Facebook or HabboHotel). Other sites do not mention what sanctions they will take in response to complaints (e.g. Skoeps). And only few sites, such as Flickr, YouTube and DailyMotion inform users that misuse of the notice and take down procedures could be sanctioned (although they usually do not specify what these sanctions can be) and subject to legal action.

4.3.4.   No general duty to monitor

Member states may not impose on hosting services a general duty to monitor, nor a general obligation to actively seek facts or circumstances that indicate illegal activity (Art. 15 (1) of the ECD).[194] Having said this, there have been tendencies in the academic literature and, to the extent that it exists, case law to argue in favour of expanding the duties of care of UCC platforms. One line of thought is to burden hosting providers in certain situations with pre-publication monitoring duties, similar to those of publishers. Some argue that at least for the commercially successful UCC platforms it would be possible and not unreasonably cumbersome to invest greater efforts in the monitoring and detection of unlawful content.[195] In a similar direction goes the view that prior-publication monitoring duties should only apply to professional operators, while amateur hosting providers cannot be expected to comply with the same duties of care.[196] Others suggest that, contrary to the present horizontal approach in the ECD, at least with regard to particularly shocking content (paedophilia, racism, crimes against humanity), protected content and defamatory content, hosts should not only be obliged to remove such content after it has been published, but should prevent the posting of such content in advance.[197] Finally, an argument has been made to require (commercial) UCC platforms, once they have been alerted to unlawful content, to put into place all (technical) means necessary to avoid new postings of this content and to render access to such unlawful content impossible.[198]

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[194] Pointing towards possible inconsistencies between Art. 15 (1) of the EUCD and recital 48 of the ECD, Barcelo and Koelmann 2000, …

[195] T. Feldmann, Commment on the decision of the Regional Appeal Court Hamburg, 22.08.2006, No. 7U50/06 (*heise.de*), 11 *Multimedia und Recht* 2006, p. 746, 748; critical G. Spindler, Comment on the decision of the Regional Appeal Court Köln, 28.05.2002, No. 15U221/01 (Steffi Graf), 8 *Multimedia und Recht* 2002, p. 549, 550, pointing to possible discrepancies with the legal situation of publishers who in principle cannot be held responsible for the content of user contributions, even if the publication is advertisement financed.

[196] Regional Appeal Court Düsseldorf, 7 June 2006, No. I-15 U 21/06, online available at: http://www.foren-und-recht.de/urteile/Oberlandesgericht-Duesseldorf-20060607.html and, more recently, District Court Frankfurt, 16. July 2008, No. 31 C 2575/07-17 (concerning prior monitoring duties of a non-commercial weblog and arguing that too far reaching monitoring duties would risk the existence of the blog and pointing to eventual conflicts between prior-publication duties and freedom of expression).

[197] In this sense e.g. Rechtbank Amsterdam, 1 November 2007 (*Prinz Willem-Alexander c.s. v. Vereniging Martijn*), published in: 1 *Mediaforum* 2008, p. 34-36 (arguing that the operator of a forum for paedophiles has further-reaching monitoring obligations with respect to the protection of privacy than the protection of copyright. In this sense also K. Koelman, commenting the judgement in 1 *Mediaforum* 2008, p. 36-37.

[198] Tribunal de Grande Instance de Paris, 19 October 2007 *(Zadig Productions v Google), ibid;* Tribunal de Commerce de Paris, 20 February 2008 *(Flach Film et autres v Google France), ibid.* German Federal High Court of Justice, 11 March 2004, No. I ZR 304/01 *(Rolex)*. In this sense also Regional Court Hamburg, 18 July 2006, No. Az.: 324 O 116/06, concerning responsibility for unlawful forum content, online available at: http://www.foren-und-recht.de/urteile/Landgericht-Hamburg-20060718.html . See also Regional Appeal Court Düsseldorf, 7 June 2006, No. 1-15 U 21/05: the Regional Appeal Court Düsseldorf has developed a test to determine what measures to detect future infringements could reasonably expected from a forum provider. Factors that the court took into account were the technologies available, their cost, the damage the infringement causes, and the profit or commercial gain for the provider. There the court also said that non-profit forum providers cannot be expected to screen individual forum postings because of the high costs involved.

Another line of thought suggests interpreting the provisions of the ECD restrictively and to argue that the ban on general monitoring obligations does not apply if a UCC platform induces users to submit unlawful content. In such a situation, a UCC platform would be under the obligation to monitor content prior to its publication.[199]

Critics of extending the responsibilities of hosting providers to the pro-active monitoring of unlawful third party content point out that such obligations would not sit easy with Art. 15 (1) of the ECD.[200] It has also been pointed out that extended monitoring duties as suggested by some courts would lead to considerable legal uncertainty for hosting services, a situation that Art. 15 (1) of the ECD was actually meant to avoid.[201] Another argument against extended monitoring duties mentions that such extended duties would be in conflict with the concept of hosting services as merely technical service, and the original purpose of the hosting exception to guarantee that hosting services remain viable. De facto, such monitoring duties would result in re-qualifying hosting services as publishers, once an infringing content has been brought to their notice. This would turn the original concepts of publisher and hosting service responsibilities on its head.[202] Another question is whether such extended monitoring duties are practically and economically viable.

Regarding the latter question, the use of filtering and similar technical measures features prominently in the discussion. Technical solutions are often used as an argument why it was economically and otherwise feasible to impose extended monitoring obligations on intermediaries, such as Internet hosts.[203] Technical solutions can include the use of filters on both, the side of service providers and of users. For examples, UCC platforms that have adopted the Principles for User Created Content (e.g. MySpace, Veoh and Sevenload) have committed to using automated filtering and identification technologies. Individual platforms have also embraced technical solutions in own initiative (e.g. Dailymotion and YouTube). Some caveats are in place. To be effective in finding and removing unlawful content (and unlawful content only), filters must be sufficiently advanced and able to take into account legal differentiations and subtleties.[204] This sets a high threshold for the acceptability of filters to weed out illegal content. Depending on the individual case, the lawfulness of content may even for legal experts be very difficult to assess. This is why automated solutions, such as YouTube's "Copyright Verification Tool" (see Annexes) should be carefully scrutinised. As the Council of Europe correctly points out, care must be taken that the use of filters does not impact on the right to freedom of expression and privacy.[205]

Other non-legal measures that are discussed in academic literature and by stakeholders[206] range from duties to inform and educate the user community, to adopt repeat-infringer-termination-policies, the initiation of licensing agreements and strategic partnerships with right holders and cooperation with infringed parties to seek regress from the actual infringer.[207]

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[199] Tribunal de Grande Instance de Paris, 13 July 2007 (*Nord-Ouest Production v Dailymotion*), ibid. See also recital 44 of the ECD.

[200] Jondet 2008, p. 7. Differentiating Julia-Barcelo and Koelman 2000, pointing out that the relationship between recital 48 and Art. 15 of the ECD is unclear, p. ...

[201] Rücker 2005, p. 347, 353.

[202] Assemblée Nationale 2008, p. 23

[203] Principle 3 of the User Created Content Principles. See e.g. Brussels Court of First Instance (the 'President'), 29 June 2007 (*Sabam v Tiscali*). See also Schellekens 2001, p. 225.

[204] Julià-Barceló 1998, 459-461; T. Zarsky, "Law and Online Social Networks: Mapping the Challenges and Promises of User-Generated Information Flows", 18 Fordham Intellectual Property, Media & Entertainment Law Journal 2008, p. 741, 778 subsq. Available at SSRN: http://ssrn.com/abstract=1098036

[205] Council of Europe, Recommendation CM/Rec(2008)6 of the Committee of Ministers to member states on measures to propose the respect for freedom of expression and information with regard to Internet filters, adopted by the Committee of Ministers on 26 March 2008. OECD 2007, p. 90. See also the critical discussion in Julià-Barceló, p. 460-461.

[206] Examples include Dailymotion's or MySpace's voluntary implementation of filtering, finger printing technologies or other technologies to detect unauthorized content, the signing of licensing and revenue sharing agreements, as well as the development of collaborative principles regarding UCC and copyright protection (e.g. the deal between Microsoft, Veoh, MySpace and DailyMoton and CBS, NBC Universal, Fox Eterntainment, Viacom and Walt Disney).

[207] Füllbier 2007, p. 519, 520. Jondet 2008, p. 13 subsq., Assemblée Nationale 2008, p. 30 subsq.

4.4. Analysis and conclusions

It is unclear under which conditions a UCC platform qualifies as hosting service in the sense of Art. 14 ECD. Equally unclear is what obligations UCC platforms have a) against parties that claim that their interests are being infringed and b) against users who have uploaded content. Reportedly, only few member states have followed the invitation of the ECD to adopt more detailed rules that would specify notice-and-takedown procedures as well as procedures to prevent abuse and conflicts with the legitimate interests and rights of authors of contested content.[208] While the ECD stresses the role of co- and self- regulatory measure in this field, we found that of the relevant existing measures examined most if not all fail to lay down detailed procedures for notice-and-take-down and counter notifications. Moreover, no concise self- or co-regulatory guidelines exist that would protect original authors of contested content against unjustified automated removal. Summing up, we conclude that UCC platforms, users and third parties operate under considerable legal uncertainty regarding the application of the liability exemption for hosting services in the ECD.

The legal "rope pulling" between those who would like to see UCC platforms treated as "publishers" and those who argue in favour of a liability exemption points to another, more fundamental dilemma. This dilemma has two dimensions. The first dimension of the dilemma is that information law burdens traditional publishers/broadcasters with extensive duties of care for own and third party content. To the extent that the Internet is gaining in importance, the traditional "publisher" concept is being extended to online media, as has recently been the case for audiovisual media services. Unlike the traditional publisher model, in case of UCC the majority of content is being supplied upon initiative of third parties, the users, making the traditional model of a publisher who is fully responsible for the content that he disseminates unattractive and difficult to handle, particularly for smaller, amateur and non-commercial platforms.

The second dimension of the dilemma is the principle of a strict distinction between content and infrastructure regulation, which at present characterises European information law.[209] For both levels, different regulatory principles apply. Services that are active at the content level are fully responsible for the content of their publications, even if it originates from third parties. As opposed, technical service operators, such as ISPs or the operators of web servers for Internet hosting are largely freed from any liability of the content that they disseminate. The distinction is motivated by the wish to, on the one hand, guarantee the quality and legitimacy of media content, while, on the other hand, not to burden technical facility operators with monitoring duties that to perform they lack the capacities, knowledge and interest. Protection of communications privacy is another important consideration. Having said this, many if not most UCC platforms merge aspects of a technical service with more content-related activities. They are not easily sorted into the existing legal categories of content service or technical service (Internet host), which makes their legal qualification and treatment complicate. The situation of UCC platforms is symptomatic for the situation of many intermediary services on the Internet, such as search engines, EPGs, online forums, online auction services, etc. that operate at the interface between technical transmission service and content service.

This regulatory dilemma has a number of important consequences, legal uncertainty being just one of them: on the one hand, the existing legal situation discourages UCC platforms from assuming more responsibility and editorial control for UCC. The less editorial responsibility they assume the more likely they are to benefit from the liability exceptions. On the other hand, the "neutrality" of UCC platforms, as of hosting services in general, is under increasing pressure from right holders, politics and even courts. In response to the perceived mismatch of the benefits that UCC platforms reap from the content produced by "their" users, and the lack of responsibility to make sure that such contents respect the rights of third parties, and the public order in general,[210] courts have begun to expand the

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[208] European Commission 2003, p. 14.

[209] European Commission, *Towards a new framework for electronic communications infrastructure and associated services, The 1999 Communications Review*, Brussels, 10 November 1999, COM(1999) 539 final, pp. vi-vii.

[210] Tribunal de Grande Instance de Paris, 13 July 2007 (*Nord-Ouest Production v Dailymotion*), ibid. See also Assemblée Nationale 2008, p. 20.

responsibilities of UCC platforms in their function as hosting services, and to impose them with publisher-like duties of care for the lawfulness of the content on their platforms.

It is important to remember that the original liability exemptions in the e-commerce directive were written with merely technical services in the mind. The objectives of Arts. 12-14 ECD were to make sure that certain technical services, which are indispensable for the free flow of information, remain economically viable and practically feasible.[211] As the second chamber of the French Parliament remarked in its report about the application of the French E-commerce law:

"the status of host was … the cornerstone of the current development of the Internet as far as the provision of information to private persons is concerned. If hosting sites were to be aware of everything they hosted, they would have to go through everything that is put online on their sites. … the task would be so complex that the host-turned publisher would in reality not make possible the availability online of that which currently makes the wealth and life of the Internet."

Broadening, on the one hand, the scope of hosting services to also cover services whose business model is (also) directed at the dissemination of content, while extending, on the other hand, their duties to care, undermines the original purpose Art. 14 of the ECD. This approach could eventually set an ambiguous precedent for the regulatory treatment of other hosting services, and render the existing liability exemptions factually meaningless. Blurring the delineation between hosting services and publishers could, moreover, lead to the bizarre situation that UCC platforms are subject to complementary, eventually contradictory duties.[212]

Vice versa, treating UCC platforms as hosting services while comparable video on demand services are subjected to the extended scope of the AVMSD and the strict obligations that the AVMSD foresees for audiovisual media services (see chapter 3), could again create disparities and send the wrong policy signals in favour of less editorial involvement and quality control. All in all, these are arguments in favour of interpreting Art. 14 of the ECD in a narrow, strictly technical sense. Note that even if a UCC platform would not qualify as hosting service, the consequence must not necessarily be full publisher-style liability, depending on the national law in question. Section 3.6 of Part III has demonstrated that courts and regulatory bodies had already earlier to deal with the situation of "user created content" and the need to modify the traditional full-responsibility approach accordingly. The way that court and regulators dealt with traditional UCC, readers letters, community broadcasting, etc. might proof a useful case study also for digital UCC.

An interesting question is what role users, as producers and users of UCC could play in monitoring and removing illegal content. Taking the spirit of Web 2.0 seriously, one could argue that users should not only play a larger role as producers, editors and distributors of digital content, but that they also could share in some of the responsibilities that come with the publication and production of content. Existing research suggests that user executed control could be potentially very powerful,[213] though probably more effective in some areas (child pornography, hate speech) than in others (notably areas that involve more complex legal analyses such as defamation, violation of IP rights or tax fraud). However, user executed policing also bears considerable risks for individual rights and the public order, including wrongful accusations, disproportionate punishing and lasting damage to a person's reputation, business or profession.[214]

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[211] European Commission 2003, p. 13.

[212] See Assemblée Nationale 2008, p. 22-23. For example, while publishers are generally entitled to keep the identity of their sources anonymous, hosting providers can be held on the basis of national laws to disclose individual identities.

[213] See e.g. the studies of M.F. Schultz, "Fear and Norms and Rock & Roll: what Jambands Can Teach Us about Persuading People to Observe Copyright Law", 21 *Berkeley Technology Law Journal* 2006, p. 651, online available at http://papers.ssrn.com/sol3/papers.cfm?abstract_id=864624; B. Baázs, *The Club model of cultural consumption and distribution*, Working Paper, Draft April 7 2007, online available at: http://www.warsystems.hu/wp-content/uploads_bodo/club_model_proposal.pdf ; E. Fauchart and E.A. von Hippel, *Norms-Based Intellectual Property Systems: The Case of French Chefs* , MIT Sloan Research Paper No. 4576-06, January 2006, online available at http://ssrn.com/abstract=881781 ; L. Strahilevitz, "Charismatic Code, Social Norms, and the Emergence of Cooperation on the File-Swapping Networks", 89 *Virginia Law Review* 2003, online available at http://ssrn.com/abstract=329700

[214] See e.g. D. J. Solove, *The future of reputation, gossip, rumor, and privacy on the Internet*, Yale University Press, 2007, online available at http://docs.law.gwu.edu/facweb/dsolove/Future-of-Reputation/text.htm , p. 76

As a matter of fact, most platforms already experiment in one form or another with user executed monitoring and controlling. Involving users in the process of monitoring the content they/other users submit could be a very effective form of "grass-root-policing" and profiting from the "wisdom of masses". Giving user executed control a place in the legal system, however, requires appropriate, unified procedures that guarantee that UCC platforms receive the information needed to handle complaints, and that the (un) lawfulness of the content in question is firmly established either by the UCC platform itself or by courts and the appropriate law enforcement institutions. Finally, effective procedures to prevent abuse or misuse of notice and take down procedures are needed. At the moment, neither European law nor the self- and co-regulatory measures examined provide for appropriate solutions.

Finally, the Council of Europe, as many commentators before him, is correct in emphasising that automated solutions may not override individual rights and constitutionally protected freedoms.[215] It is important to realize that the protection of fundamental rights and freedoms, such as freedom of expression or the right to privacy, apply in the first place in the relationship between citizens and states, not between citizens and private services, and far less in the relation citizens and machines. This is why the use of automated solutions needs to be accompanied by laws that specify the requirements technical solutions have to fulfil, prescribe transparency in the usage of technology and, last but not least, formulate rights and procedures of those who are affected by automated decisions.[216] Again, neither European law nor the relevant co- and self-regulatory initiatives that exist so far address this issue. In its recommendation, the Council of Europe makes a number of important recommendations that could serve as a basis for further discussions.

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[215] Council of Europe, Recommendation Rec(2008)6 of the Committee of Ministers to member states *on measures to promote the respect for freedom of expression and information with regard to Internet filters*, adopted by the Committee of Ministers on 26 March 2008.

[216] Compare with e.g. Art. 15 (1) of Directive 95/46/EC of the European Parliament and of the Council of 24 October 1995 on the protection of individuals with regard to the processing of personal data and on the free movement of such data, 1995, OJ L 281/31 (Data Protection Directive), which reads: " Member States shall grant the right to every person not to be subject to a decision which produces legal effects concerning him or significantly affects him and which is based solely on automated processing of data intended to evaluate certain personal aspects relating to him, such as his performance at work, creditworthiness, reliability, conduct, etc."

5. UCC and European Data Protection Law

5.1. Introduction

Many UCC services combine user created content with social networking elements. Social Networks (often referred to as SN or SNS for Social Network Sites)[217] can be defined as "informal but all-embracing identity management tools, defining access to user-created content via social relationships".[218] Social networking applications are an exciting feature of Web 2.0. They allow for entirely new dimensions of inter-personal communication, making friends and letting others participate in one's life. Social networks allow their users to find and connect with each other, exchange user created and "professional" content, send each other gifts, invitations and instant messages, plaster each others "walls" with comments, etc. The social network element in UCC platforms raises, however, also a number of problems. Probably the most pressing and most widely discussed problem in this context is privacy concerns.[219]

Users share a wealth of personal information via social networks, and they often do so very truthfully. Much of the content that they upload is personal UCC, such as baby pictures, holiday videos, pictures from a party, etc.. When personalizing their profiles, users tend to give real names, addresses, photos, brand preferences, partners, religion, drug use, names and addresses of friends and family.[220] This openness may be puzzling at times. It is more understandable if one considers what social networking is all about: connecting to other people, making friends, expressing one's self, increasing reputation and popularity and finding "birds of the same feather".[221] Other factors that lead users to reveal more personal information than may be good for them, are social pressure, but also the lack of awareness. An Ofcom study found that by not revealing sensitive personal information, users can risk exclusion: particularly younger users indicated that [t]hey wonder, "when the whole purpose is to find people and communicate, why anyone would hide personal details, and [that they] are suspicious of what such a person has to hide."[222] Also, if all one's friends reveal personal information, one does not want to be the one who lags behind. In many instances, however, users may also simply not be aware of the possible (long term) consequences of publishing their personal life on the Internet. Possible sources of unawareness can be the lack of technical understanding and lacking imagination of what is all possible on the Internet. Even for experts it is still very challenging to gasp the possibilities, risks and implications of Web 2.0 for our concept of privacy.[223] How much more difficult must it be for users! Another source of unawareness can be a false sense of security and trust in the integrity of the "community" and "friends".[224] Having said this, studies also found that even if users do understand the potential risks of

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[217] In the following, we will use the notions UCC platforms and SNS synonymously, operating on the understanding that we only discuss in this section UCC platforms with SNS elements and vice versa, SNS that encourage users to upload and share UCC.

[218] ENISA, *Security Issues and Recommendations for Online Social Networks*, October 2007, Position Paper No. 1, online available at: http://www.enisa.europa.eu/doc/pdf/deliverables/enisa_pp_social_networks.pdf, p. 6. ENISA 2007 lists as defining SNS tools: tools for posting personal data and user created content into a personal profile; personalised communication tools and tools for defining social relationships (e.g. access control, forming of groups, etc.).

[219] While the uploading of content on user created content sites might also raise certain privacy issues, so far research has concentrated on privacy risks associated with social networking, Ofcom, *Social Networking. A quantitative and qualitative research report into attitudes, behaviours and use*, Research document, 2 April 2008, online available at: http://www.ofcom.org.uk/advice/media_literacy/medlitpub/medlitpubrss/socialnetworking/ , p. 57.

[220] Get Safe Online, 'Social Networkers and wireless networks users provide "rich pickings" for criminals', *Get Safe Online Week*, 12th November, 2007, online available at: http://www.getsafeonline.org/nqcontent.cfm?a_id=1469. See also S. Hinduja and J. Patchin, "Personal Information of Adolescents on the Internet: A Quantitative Content Analysis of MySpace", 31 *Journal of Adolescence* 2008, p. 125-146.

[221] See e.g. Nicole B. Ellison, Charles Steinfield, Cliff Lampe, " The Benefits of Facebook "Friends:" Social Capital and College Students' Use of Online Social Network Sites", 12 Journal of Computer-Mediated Communication 2008, p. 1143–1168; D. Boyd and J. Heer, *Profiles as Conversation: Networked Identity and Performance on Friendster,* presented at International Conference on System Science, Kauia, Hawaii, January 4-7, 2006, IEEE Computer Society, online available at: http://www.danah.org/papers/HICSS2006.pdf. J.L. Goldie, "Virtual Communities and the Social Dimension of Privacy", 3 *University of Ottawa Law & Technology Journal* 2006, p. 133, 165.

[222] Ofcom, 2008, p. 53.

[223] One example are the (yet widely unexplored) possibilities offered through Content Based Image Retrieval (CIR) which allows to identify and locate users e.g. on the basis of a picture in which they are depicted, see ENISA 2007, p. Another yet widely unexplored issue is the activity of certain search engines to search for and combine personal data in order to develop individual user profiles, Rome Memorandum, p. 3.

[224] International Working Group on Data Protection in Telecommunications, Report and Guidance on Privacy in Social Network Services, " Rome Memorandum", 4 March 2008, Rome, p. 2. ENISA 2007, p. 3.

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revealing so much personal information, they do not always act upon them.[225] A recent Euro barometer study found that 82% of Internet users felt that data transmission over the Web in general was not secure, but only a minority of Internet users (22%) said that they used tools and technologies to protect their personal data on the Net.[226]

Why is it then risky to publish personal user created content and personal details on UCC platforms? One obvious problem is that users often do not know who their audience is. Some platforms allow users to install certain privacy settings and pre-define the circle of persons who are entitled to access a personal profile. Others platforms do not. Even if platforms do offer privacy settings, many users decline to use them.[227] As a consequence, personal data, including sensitive data such as information about drug use, work place criticism, criminal activities, sexual preferences, etc., can be viewed not only by friends, but also by potential employers and head hunters; public authorities, such as secret services, law enforcement agencies and tax authorities; commercial parties, including marketing agencies and advertisers, or private users with criminal intentions (fraudsters, paedophiles, etc). In most cases, users will have no idea of who watches their personal information, neither who uses them.

Social networks as personal information bonanzas attract not only friends. Personal data can be used in ways unintended by users. It can be re-published by other users without knowledge of the "owner". For example, the GetSafeOnline survey revealed that 27% of 18-24 year-olds UK SNS users admitted that they have posted information and photos of other people without their consent online.[228] Stories of potential or actual employers screening SNSs when making employment decisions make frequently headlines. The Dutch tax authority admitted screening SNSs in order to find out if users were honest in their tax declaration. SNS users are also exposed to undesirable, harmful or damaging abuse of their personal data, e.g. in form of cyber bulling, spear pishing, social spam, cyber stalking and profile squatting. A particularly serious problem are adults that use personal data of children and minors in order to seek contact, molest them or worse. Finally, the personal data of SNS users are also an increasingly valuable commodity for platform providers. As a consequence, data mining, profiling and targeted or "behavioural" advertising, often with the help of cookies, are controversial issues when it comes to monetizing Web 2.0 applications.[229] An example of the arising tensions between users' interests in their personal data and their exploitation was the Facebook Beacon incident. Facebook launched the so-called "Facebook Beacon" in November 2007. The application allowed incorporating personal data from external websites into individual user profiles on Facebook to allow targeted advertising ("your friend … has recently bought … from …"). Only upon massive protests,[230] Facebook decided not to activate Facebook Beacon for users unless they decided to opt-in.[231]

The Facebook Beacon incident also demonstrated how little control users have over their personal data once disseminated, and how personal data can be used and combined beyond the limits of one particular network. Personal data can start leading its own life, and the life span of data on the Internet is in principle infinite. One well-known feature of digital technologies is the ease of copying and distributing digital content. This is, of course, also true for personal UCC and data. It is notoriously difficult to locate and effectively remove content once it has been published online.

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[225] Ofcom 2008, p. 57, 61. P. Norberg and D. Horne, "The Privacy Paradox: Personal Information Disclosure Intentions versus Behaviours", 41 *Journal of consumer affairs* 2007, p. 100 and the same in : " Privacy attitudes and privacy-related behaviour, 24 *Psychology and Marketing* 2007, p. 829 subsq. (observing that many people may have negative attitudes toward the provision of personal information and yet will disclose the very same information for no apparent benefit).

[226] Flash Eurobarometer, *Data Protection in the European Union: Citizens' perceptions*, Analytical report, February 2008, online available at: http://ec.europa.eu/public_opinion/flash/fl_225_en.pdf

[227] Compare Ofcom 2008, p. 53 subsq.

[228] Get Safe Online 2007.

[229] See e.g. US Federal Trade Commission (FTC), *Behavioural Advertising: tracking, Targeting, and Technology, workshop*, Washington, 1 and 2 November 2007, more information and speaker presentations available at: http://www.ftc.gov/bcp/workshops/ehavioral/index.shtml; Foundation for information policy research (fipr), *Open Letter to the [UK] Information Commissioner*, 17 March 2008, online available at: http://www.fipr.org/080317icoletter.html . T. Gray, T. Zeggane and W. Maxwell, "US and EU Authorities Review Privacy Threats on Social Networking Sites", 4 *Entertainment Law Review* 2008, p. 69 subsq.

[230] See e.g. MoveOn.org, *Facebook must respect privacy,* petition, online available at: http://civ.moveon.org/facebookprivacy/?rc=fb.privacysuccesspage

[231] Mark Zuckerberg, *Thoughts on Beacon,* 5 December 2007, online available at: http://blog.facebook.com/blog.php?post=7584397130

What is the role of privacy and data protection law in all this? The objective of the following section is to give a cursory overview of some of the issues raised when applying existing European data protection law to UCC platforms, and particularly UCC platforms with SNS elements. More specifically, we will focus on the Data Protection Directive[232] and, where relevant, the Directive on Privacy and Electronic Communications ("ePrivacy Directive").[233] Some caveats are in place. For a comprehensive discussion of the application of data protection law to UCC platforms, comparative research is necessary on how member states interpret the, often broad, notions in these directives. A comparative analysis of national laws, however, goes beyond the scope of this study. The same is true for an analysis of US law. Note that online services that operate from the US may transfer personal data to their servers to the US, where different standards for data protection apply.[234]Second, European data protection law addresses only selected privacy interests, notably the interest in fair processing of personal data. UCC raises a range of other important privacy issues that call for discussion but that to discuss would exceed the scope of this study. The scope of this study is restricted to the analysis of European data protection regulation. Also in context with data protection law, we can only address selected issues, and others not (e.g. issues such as data retention, transfer of data outside the European Union, etc. will not be discussed). Again, we will point out major lines and questions, instead of analyzing legal problems around UCC and data protection in detail. Note that some of the issues that UCC raises in the context of data protection regulation are not specific to UCC, but relate to the more general questions about the successes and failures of data protection regulation in general and the protection of personal data online in specific. We will try to restrict our analysis as much as possible to UCC related aspects.

The following section (section 5.2) will give a brief introduction into European data protection laws. The subsequent sections will deal with selected aspects of UCC and privacy under European data protection law, what European data protection law has to say about the use of personal data in ways not intended by users (section 5.3), data protection law and the protection of minors (section 5.4) as well as some notes about crimes related to personal data (section 5.5). We will then provide a final analysis and conclusions (section 5.6).

5.2. Brief Overview of European Data Protection Law

The core of European data protection law and the protection of personal data are Art. 8 of the Charter of Fundamental Rights of the European Union and two directives: the Data Protection Directive and the ePrivacy Directive. European data protection law aims at harmonizing the national rules on data processing, and thereby laying down the conditions so that personal data can flow freely within the Internal Market. The directives seek to realize a high level of protection of fundamental freedoms of Europe's citizens, including the right to privacy.[235]

The Data Protection Directive regulates the automated processing of personal data. This includes data processing via the Internet.[236] The main principles of the Data Protection Directive are

- Data collection and processing must be bound to a specified purpose, and data may be processed only if the user (data subject) has either given his consent or the processing is legitimate for other reasons described in the directive.

- Personal data must be adequate, relevant and not excessive in relation to the purposes for which it is collected and/or processed.

- The user has certain rights with regard to his personal data, including the right to access to his data that has been collected, the right to have it rectified and the right to object to the processing.

- The user must be adequately informed, including information who processes his data, for which purpose.

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[232] Directive 95/46/EC of the European Parliament and of the Council of 24 October 1995 on the protection of individuals with regard to the processing of personal data and on the free movement of such data, OJ L 281, 23/11/1995 p. 31-50.

[233] Directive 2002/58/EC of the European Parliament and of the Council of 12 July 2002 concerning the processing of personal data and the protection of privacy in the electronic communications sector
OJ L 201, 31/07/2002, p. 37-47.

[234] For example, when registering with MySpace, users agree that their personal data will be transferred to the MySpace server in the US and that US data protection laws apply.

[235] See Art. 1 and Recitals 9 and 10 of the Data Protection Directive.

[236] See European Court of Justice, Case C-101/01 (*Lindqvist*), 6 November 2003, Rec.2003, p.I-12971 paragraph 25.

- The data controller must take appropriate technical and organizational measures to protect the confidentiality and safety of a users' personal data.

- The processing of personal data is subject to supervision by specialized data protection authorities.[237]

Seven years after the adoption of the general directive on data protection, the ePrivacy Directive was adopted. This is sector specific regulation that deals specifically with data protection in the electronic communications sector. The ePrivacy Directive "particularizes and complements" the provisions in the Data Protection Directive.[238] In addition, it includes provisions with regard to data security, confidentiality of communication, spam, the use of cookies and data retention. It contains specific rules for the processing of traffic data and location data by electronic communication services. Note that the processing of personal data not collected/processed in context with the provision of an electronic communication service (e.g. UCC that a user has added himself to his personal profile) might not fall under the Directive on Privacy and Electronic Communications.[239] It may, however, still fall under the general Data Protection Directive. The ePrivacy Directive is currently under review.[240] In the light of the existing uncertainty if SNSs fall under the ePrivacy Directive, the European Parliament has suggested to clarify this point and make clear that also private communications networks and publicly accessible private networks fall under the scope of the directive.[241]

The ePrivacy Directive applies to the processing of personal data in connection with the provision of publicly available electronic communication services[242] in public communication networks. Excluded from the scope of the ePrivacy Directive are broadcasting services and information society services that "do not consist wholly or mainly in the conveyance of signals on electronic communication networks".[243] The question of whether UCC platforms fall under the ePrivacy Directive must be decided on a case-by-case basis. As discussed elsewhere, many UCC platforms combine transport and content related activities, making it difficult to determine if, and to what extent they fall under the ePrivacy Directive. This situation is part of a more fundamental problem, namely that many intermediary services, including UCC platforms, fit not well into the idea that content and infrastructure related aspects can be regulated separately (see also Part III, section 4.4). It is important to note here that certain rules in the ePrivacy Directive, e.g. Article 5(3) on cookies and spyware and Article 13 on unsolicited communications (spam), are general provisions which are applicable not only to electronic communication services but also to any other service.

The following analysis departs from the regulations of the Data Protection Directive and mentions, where relevant, provisions of the ePrivacy Directive.

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[237] See Art. 8 of the Charter of Fundamental Rights of the European Union and the Privacy Directive. See also C. Kuner, *European Privacy Law and Online Business*, Oxford University Press 2003, p. 17.

[238] Art. 29 Working Party, *Privacy on the Internet: A Comprehensive EU Approach to Online Data Protection*, 21 November 2000, DG MARKT 5063/00, online available at: http://ec.europa.eu/justice_home/fsj/privacy/docs/wpdocs/2000/wp37en.pdf, p. 22. Recital 12 of the Directive on Privacy and Electronic Communications;

[239] Art. 29 Working Party 2000, p. 22.

[240] For more information visit http://ec.europa.eu/information_society/policy/ecomm/tomorrow/index_en.htm

[241] European Parliament legislative resolution of 24 September 2008 on the proposal for a directive of the European Parliament and of the Council amending Directive 2002/22/EC on universal service and users" rights relating to electronic communications networks, Directive 2002/58/EC concerning the processing of personal data and the protection of privacy in the electronic communications sector and Regulation (EC) No 2006/2004 on consumer protection cooperation (COM(2007)0698 – C6-0420/2007 – 2007/0248(COD)), Brussels, 24 September 2008, Amendments 29 and 121.

[242] The European Framework Directive defines electronic communication services as "a service normally provided for remuneration which consists wholly or mainly in the conveyance of signals on electronic communications networks, including telecommunications services and transmission services in networks used for broadcasting, but exclude services providing, or exercising editorial control over, content transmitted using electronic communications networks and services; it does not include information society services, as defined in Article 1 of Directive 98/34/EC, which do not consist wholly or mainly in the conveyance of signals on electronic communications networks" (Art. 2 c of the Directive 2002/21/EC of the European Parliament and of the Council of 7 March 2002 on a common regulatory framework for electronic communications networks and services (Framework Directive), OJ L 108/33, 24.04.2002).

[243] Art. 2 (c), recitals 5, 9 and 10 of the Framework Directive.

5.3. Using personal data in ways not intended by users

This section will look closer into the question of how European data protection law protects users against the use of their personal data in ways that they did not intend or imagined. To what extent and under which conditions may personal data be used for targeted (behavioural) advertising? Is it lawful if public authorities or employers systematically analyze personal profiles and user created content for useful information? And may users share the pictures and personal data of other users with all their friends?

5.3.1. Scope of European data protection law

European data protection law applies in all instances that operators of UCC platforms/SSN networks or third parties[244] process personal data of users by automatic means.[245] Note that some sites might process personal user data in countries outside the EU, without having an establishment in the EU and without the use of equipment in the EU, in which case European data protection law would not apply.[246]

European data protection law does not apply if national data has been processed "in the course of a purely personal or household activity" (Art. 3 (2) of the Data Protection Directive). A relevant question in the UCC context is if users that process personal data of other users, for instance by adding their pictures to his profile or sharing it with other friends, do fall under the household exception. The answer depends on whether the activity is purely personal. The directive itself refers to "domestic" activities and gives the example of private correspondence.[247] The European Court of Justice has found that the publishing of personal data on the Internet in a way that this data is accessible for an infinite number of people does not fall under the exception for personal or household activities.[248] Another, yet open question is of whether something different applies in a situation that a user uses effective technical or other arrangements to restrict access to/use of that data to a pre-defined circle of friends.[249] Of course the UCC platform operator has to build the possibility of making such arrangements into his service. Arguably the platform operator cannot assert the personal or household activity exception for its part in the processing of personal data as long as the platform engages in processing data in the context of a commercial service, often at a large scale.

Furthermore, European data protection law does not apply in situations where law enforcement agencies surf individual profiles for activities in the area of criminal law enforcement (Art. 3 (2) of the Data Protection Directive). Note that these activities can be subject to specific national data protection rules.

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[244] Commercial entities as well as public authorities and natural or legal persons.

[245] The European notion of "processing" is fairly broad: "the collection, recording, organization, storage, adaptation, alteration, retrieval, consultation, use, disclosure, dissemination or otherwise making available, alignment or combination, blocking, erasure or destruction of personal data", Art. 2 of the Data Protection Directive.

[246] See Art. 4 of the Data Protection Directive on applicable law. A more detailed discussion of aspects of applicable law goes beyond the scope of this study, see instead Kuner 2003, p. 119 subsq.

[247] According to Recital 12 of the Data Protection Directive, excluded from the scope of the directive is "the processing of data carried out by a natural person in the exercise of activities which are exclusively personal or domestic, such as correspondence and the holding of records of addresses".

[248] European Court of Justice, *Lindqvist*, paragraph 47.

[249] Note that the notion of "friends" can have another, broader meaning in the context of social networks, while the application of Art. 3 (2) of the Data Protection Directive might call for a narrow interpretation.

5.3.2.   The concept of personal data

One of the key notions that define the scope of European data protection law is the notion of "personal data".[250] The definition of personal data is as vague as it is controversial. A factor that adds to the controversy is that European data protection law and United States laws about data protection interpret the notion of personal data differently,[251] as do UCC platforms that operate in the different jurisdictions. For example, MySpace distinguishes, seemingly basing itself on US notions, between personal data (email address, first and last name, postal code, gender, and date of birth), non-personal information (IP address,[252] aggregate user data, and browser type) and profile information.[253]

The Data Protection Directive defines personal data as

"any information relating to an identified or identifiable natural person ("data subject"); an identifiable person is one who can be identified directly or indirectly, particularly by reference to an identification number or to one or more factors specific to his physical, psychological, mental, economic, cultural or social identity" (Art. 2 (a) of the Data Protection Directive).[254]

The notion of personal data is not static, and it expands with the improvement of identification technologies.[255] Examples are facial recognition technologies that make it possible to search pictures for faces and Content Based Image Retrieval (CBIR), allowing e.g. the search of the content of pictures in order to identify a person. A difficult question in this context is to what extent it can be expected from the data controller to anticipate the future evolution of identification techniques, and thus, the scope of personal data protection in, say, ten years (see also Part III, paragraph 5.3.4).[256]

It is not the character of the data (professional, personal, economic, economically valuable) that is relevant when defining personal data, but whether data can be used to identify a natural person.[257] Also a combination of personal data can be protected (even if individual data cannot be used to identify a person) if the aggregated data can be used to identify a person.[258] This aspect is important e.g. in context of so-called mash-ups, the collection of individual pieces of information from different sources in order to make a profile of a person. For example, Yahoo! reserves the right to combine personal data already in Flickr's possession with data that Yahoo obtains from business partners or other companies.

"Any information" can also cover secondary data collections (e.g. sites visited, contacts and communication with other members, time spend on a platform, etc.). As the European Network and Information Security Agency (ENISA) points out, while secondary data collection may not be a problem specific to SNS, the negative implications of secondary data collection in an SNS context can

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[250] Note that the directive further distinguishes between "personal data" and "sensitive personal data", a distinction that this study will not further discuss in greater detail. Note that Art. 7 (1) of the Data Protection Directive prohibits, in principle, the processing of senstitive data (e.g. data about race, religion, political opinions, etc.), but that in situations where a data subject publishes such information voluntarily, the prohibition is probably void, see the Dutch College Bescherming Persoonsgegevens (Data protection Authority), *Publication of Personal Data on the Internet*, December 2007, online available at: http://www.dutchdpa.nl/downloads_overig/en_20071108_richtsnoeren_internet.pdf?refer=true&theme=purple , p. 15.

[251] E.g. on the question of whether the IP address constitutes personal data or not. See for a comparative discussion Gray, Zeggane & Maxwell 2008, p. 69, 73. The question of whether the IP address is personal data or not can be relevant for example when assessing the legitimacy of targeting advertising based not on an individuals name or email address but on her IP address. In Europe, arguments are being brought forward that that IP addresses should usually be considered to fall within the definition of personal data with the consequence that data protection law also applies to these kinds of targeted advertising, see e.g. Art. 29 Working Party, Opinion 4/2007 on the concept of personal data, 20 June 2007, WP 136, online available at: http://ec.europa.eu/justice_home/fsj/privacy/docs/wpdocs/2007/wp136_en.pdf , p. 16-17.

[252] Note that there is an ongoing controversy whether IP addresses are personal data or not.

[253] The later refers to information that users provide voluntarily as part of their profile (schools, companies, videos and/or pictures, private messages, bulletins or personal statements).

[254] The directive further distinguishes between "personal data" and "sensitive personal data", a distinction that this study does not further discuss. Note that Art. 7 (1) of the Data Protection Directive prohibits, in principle, the processing of sensitive data (e.g. data about race, religion, political opinions, etc.), but that in situations where a data subjects publishes such information voluntarily, the prohibition is probably void, see College Bescherming Persoonsgegevens 2007, p. 15.

[255] Critical about this development Kuner 2003, p. 50, 55.

[256] See Art. 29 Working Party 2007, p. 15.

[257] Art. 29 Working Party 2007, p. 6. Kuner 2003, p. 50.

[258] Kuner 2003, p. 51.

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be particularly grave. As all the data are often being held in one hand, SNSs would function as "one-stop communication hubs for messaging services, interest groups, video content and more".[259]

It is important to realize that whether data is held private and shielded from others or published freely on the Internet is not relevant for the definition of what is "personal data" in the sense of the Data Protection Directive. Under existing European data protection law, users who publish their personal data on the Internet are entitled to the same level of fair processing and data protection than users that take care to keep their personal data private. Of course, in the latter case, users themselves might prevent their data from being further processed in the first place. The Art. 29 Working Party argued (for the case of Internet publications and fora) that:

"[t]he fundamental question raised by this disclosure of information is the application of privacy principles to data publicly available on the Web. Contrary to a wide spread opinion, the protection of the data protection legislation still applies to data made public."[260]

To the extent that the protection of a data subject's privacy is the primary consideration underlying existing data protection law, the lack of any reference to the public/private character of personal data is in the best case puzzling. In the worst case it can lead to overbroad protection and practical difficulties in applying existing data protection law. The conceptual origin of the right to privacy is the protection of the personal sphere of an individual.[261] A controversial question in the context of UCC platforms is whether users have a "reasonable expectation of privacy"[262] when they publish their personal information on a publicly accessible platform, for example as part of their personal profile.[263] The European Court of Human Rights held on several occasions that a person can be entitled to a reasonable expectation of privacy even when moving in the public sphere (e.g. walking on a street)[264] or using the Internet.[265] Having said this, in his decision in the Copland case, the European Court of Human Rights found that Ms. Copland had a reasonable expectation of privacy as to her personal usage of the Internet because she has not been given a warning that she was being monitored.[266] As opposed, when users deliberately place personal data on UCC platforms, they are usually aware that others can take notice. Arguably, in such situations users can expect a lesser degree of privacy. In other words, they should be to a larger degree responsible for the safety, quality and availability of their personal information on public profiles. This is a consideration that so far has not been reflected in existing data protection law, notably in the definition of personal data.

Another question is if users can claim protection under data protection law for all personal UCC that they publish on YouTube or as part of their profiles. Much of the videos, photos, texts, etc. that users upload could be used to identify them or others. Someone who adopts a broad interpretation of "personal data" could argue that all the personal videos, photos and texts from users fall under the ambit of European data protection law. And there are good reasons to argue this way. Users can have very valid privacy interests that such content is not processed against their will. Apart from concerns about informational privacy,[267] privacy concerns regarding UCC can also have a more moral component to it. Because such content is a form of personal expression, users can also have a protection worthy interest that such content is not used without their consent, not used in a different context or commercialized without their permission.[268]

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[259] ENISA 2007, p. 8.

[260] Art. 29 Working Party 2000, p. 54. In this sense also College Bescherming Persoonsgegevens 2007, p. 9. See also the critical discussion of Blok and Vedder 2002, p. 18-20, with further references.

[261] Blok and Vedder 2002, p. 7 subsq. with further references.

[262] European Court of Human Rights, *Case of Halford v United Kingdom*, 25 June 1997, Reports of Judgements and Decisions 1997-III paragraph 45; European Court of Human Rights, *Case of P.G. & J.H v. United Kingdom*, 25 September 2001, Reports of Judgements and Decisions 2001-IX, paragraph 57.

[263] Blok and Vedder 2002, p. 18-20, with further references.

[264] European Court of Human Rights, *P.G. and J.H. v United Kingdom*, paragraph 57; European Court of Human Rights, Peck, 28 January 2003, Reports of Judgements and Decisions 2003-I, paragraphs 59-63.

[265] European Court of Human Rights, *Case of Copland v. The United Kingdom*, 3 April 2007, Application No. 62617/00, paragraphs 41 and 42.

[266] European Court of Human Rights, *Copland*, paragraph 42.

[267] See J. Wagner DeCew, *In Pursuit of Privacy: Law, Ehtics & the Rise of Technology*, Cornell University Press, Ithaca, 1997. Wagner DeCew distinguishes privacy in informational privacy (the right to control the use of ones data), accessibility privacy (the ability to say who has access to personal data) and expressive privacy (the right to personal self-deployment and definition of one's person and social relationships). See also Goldie 2006, p. 138-142.

[268] Goldie 2006, p. 133, 165. Goldie summarises these interests under the heading " expressive privacy.

There are, however, again a number of problems attached to such a broad reading of "personal data". Considering all personal videos and photos personal data can turn the existing principles in data protection law ad absurdum. For example, according to Art. 6 (d) of the DataProtection Directive, data controllers are under the obligation to ensure that the data collected and processed are accurate and up to date. Data controllers must, moreover, make sure that data that are inaccurate or incomplete are erased or rectified. How far does this obligation go with respect to UCC? Must controllers ensure that photos submitted are up-to-date, and that personal information about hobbies, relationships, favourite dinner, etc. stays correct over time? This would impose almost publisher-like responsibilities for the quality and accuracy of UCC on data controllers. Finally, the obligation to actively monitor the accuracy of the content of personal UCC might be at odds with the provisions in the E-Commerce Directive, which prohibit general monitoring obligations (see Part III, paragraph 4.3.4).

Another complication is the following: tying special legal protection to all UCC "with a personal touch" would de facto result in a quasi-property right in UCC, even if the content as such does not have the necessary level of originality to qualify as protection-worthy "work" in the sense of copyright law (see see Part III, paragraph 2.1.1).[269] On the basis of data protection law, users could then control the use and distribution of their "personal" content and even require UCC platforms to protect that content from unauthorized access and use by others (see Art. 17 of the Data Protection Directive). Protecting all personal UCC as personal data would probably stretch the boundaries of existing European data protection law too far. Somewhere a line would need to be drawn, and more discussion is needed to determine where. A relevant consideration in this context is that the primary objective behind the data protection directives is to protect data subjects in their relationship to data controllers, not to give them any absolute rights against anyone. Moreover, European data protection law is aimed at safeguarding the fair processing of personal data, not users' interests in self-expression in general. Finally, other, more effective means might be in place to address the concerns of users, including contractual and technical solutions.[270]

5.3.3.   When is an individual user a data controller

The obligations in the Data Protection Directive are directed at the "data controller". "Data controller" is anyone who "determines the purposes and means of the processing of personal data", "alone or jointly with others" (Art. 2 (d) of the Data Protection Directive).[271] Operators of a UCC platform who collect and process personal data in the course of the registration, operation and marketing of the platform are data controllers. The question of whether the data controller is a commercial or non-profit entity does not matter for the application of European data protection law.

A relevant question in the UCC context is if, and under which conditions, individual users are also data controllers, with the consequence that the Data Protection Directive applies. Users are natural persons and as such they can fall in principle under the definition of data controller. Necessary precondition is that they alone or jointly with others determine the purpose and means of the processing of personal data of other users.[272] Arguably, a user who adds to his profile personal data or personal UCC of other users determines the purpose and means of uploading personal data on his profile.[273] As a consequence, he must inform the other users and ask for their consent before including their pictures, names, comments, etc. in his profile, and either collect their consent (which they can give e.g. by adding comments or content in own initiative) or have another legitimate ground for processing these data. Other provisions of the Data Protection Directive fit less easily the situation of individual (non-professional) users. Examples are the obligation to notify supervisory authorities or to guarantee the security of processing. Partly, these are obligations that are not in the power of individual users to apply. This can be, for instance, the case in situations where the operator of that platform does not provide for any privacy settings so that users can protect their profiles from third party access. Also, users will have only very little factual control on how commercial partners of that platform treat

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[269] Some academics even suggested that intellectual property law could be successfully employed to protect user privacy. The data subject could then issue licenses to use her personal data, R. Clarke, "Internet Privacy Concerns Confirm the Case for Intervention, 42 *Communications of the ACM* 1999, p. 60, 63.

[270] See e.g. S. Preibusch, B. Hoser, S. Gürses and B. Berendt, *Ubiquitous social networks – opportunities and challenges for privacy-aware user modelling,* online available at: http://vasarely.wiwi.hu-berlin.de/DM.UM07/Proceedings/05-Preibusch.pdf

[271] As to the question of when the ePrivacy Directive applies see above section 5.2.

[272] Unless they do fall under the household exception, see section 5.3.1.

[273] In this sense College Bescherming Persoonsgegevens 2007, p. 7, 9.

personal data on their profile.[274] Another, still open question is what the legal obligations of underage "data controllers" are. Also on this question, the directive is yet silent.

This leads to another question, namely to what extent the operator of a UCC platform is jointly responsible (together with the user) for personal content on users' profiles. If the individual user is a data controller for the data in his profile, does this mean that the platform has no longer any responsibilities concerning these data? Strictly speaking, this is data that the operator of that platform does not collect, but that users provide voluntarily for their own purposes (e.g. to make a profile site attractive, to communicate with others, etc.). On the basis of this argument, some platforms do not consider themselves to be data controller for content in personal profiles. For example, MySpace determines:

"Because the Member, not MySpace, determines the purposes for which Profile Information is collected, used and disclosed, MySpace is not the data controller of Profile Information that Members provide on their profile."

Having said this, the entire business model of MySpace is built on users placing personal content in each other's profiles. Accordingly, one could argue that MySpace is jointly responsible as data controller and should at least in parts be responsible for the safety of such content, and that it is processed fairly (for example by MySpace's business partners). The problem is that the Data Protection Directive does not give guidance on how joint responsibility for personal data in users' profiles could be given form, especially in relationship to the operator of that platform.[275]

Even if individual users do qualify as data controllers in the sense of the directive, this still leaves open the question if the provisions of the directive fit the situation of individual (amateur) users. The directive has been written with professional, commercial undertakings in mind that often process personal data of users on a larger scale and as part of a commercial business. Such provisions do not necessarily fit the situation of individual users. In addition, the balancing of the interests of professional undertakings who process personal data in the course of the operation of their business, and data subjects could lead to different results than the balancing of the interests of individual users (e.g. freedom of expression) and the interests of data subjects.[276]

5.3.4. Theory and practice of the "purpose-limitation-model"

In principle, a lot is possible under European data protection law (including targeted advertising, profiling, aggregation of individual profiles from different sources, sharing (speak: selling), etc.).[277] Necessary precondition is that the data subject has unambiguously given his consent, or the processing is necessary for reasons outlined in Art. 7 (b) – (f) of the Data Protection Directive. Data controllers must, moreover, comply with the requirement in Art. 6 about the fairness, lawfulness and adequacy of processing. Of particular importance for the given context is the "purpose limitation principle" in Art. 6 (1)(b) of the Data Protection Directive: data must be collected for a specific, explicit and legitimate purpose and may be not processed in a way incompatible with that purpose. Compliance with this condition requires that users are a) specifically informed of the purpose data is collected for and b) once collected, data may not be used for any purpose incompatible with the original purpose.[278]

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[274] In this sense e.g. Gray, Zeggane & Maxwell 2008, p. 69, 74, arguing that users could be data controllers where the platform operator provides them with tools to control e.g. targeted advertising by third parties.

[275] See also College Bescherming Persoonsgegevens 2007, p. 8, arguing in favour of a joint-responsibility model.

[276] See also European Court of Justice, *Lindquist*, para. 90.

[277] Note that certain activities might be unlawful on the basis of other laws, e.g. penal law. Note also that abuse of the knowledge of certain personal data, e.g. in context with an employment decision or in order to commit a crime, is not a matter of data protection law, but see sections 3.6 and 5.5. In addition, the Directive on Privacy and Electronic Communications has specific rules for the use of personal data for spam, automatic call forwarding, subscriber directories, itemised billing, line identification, etc.

[278] About the question of consent needs to be explicit, or if opt-in and opt-out models suffice, see Kuner 2003, p. 68. In specific cases, EU data protection law may require explicit consent (e.g. Art. 8 (2)(a) of the Data Protection Directive) or refer explicitly to opt-out models, see Art. 13 (2) of the Directive on Privacy and Electronic Communications and Art. 14 (b) of the Data Protection Directive. The question of when consent is generally valid under contract law see section 6.1-6.3 of this study.

Art. 10 and 11 of the Data Protection Directive impose extensive information duties on data controllers.[279] This requirement is at odds with the privacy policies of some UCC sites. Privacy policies can remain rather vague on the purpose personal information is used for. "targeted marketing and advertising" (HabboHotel), "enabling communication with other users" (HabboHotel), "maintaining information as a reference tool or general resource" (HabboHotel), "fine tuning and personalizing services" (Last.fm), "operation of the website" (Dailymotion). What does this really mean in a web 2.0 environment? Does targeted advertising refer to the occasional newsletter, or does the user consent to applications such as Facebook's Beacon? "Fine tuning and personalizing services" could be a personal welcome once a user logs in. "Fine tuning" can, however, also refer to applications such as Facebook's highly controversial "Newsfeed",[280] or innovations along the line of Yahoo's OpenStrategy. OpenStrategy is aimed at creating a Single Social Platform (a "single social" connective tissue "across all Yahoo! Experiences")[281] and at providing third party developers with

"ways to query for a user's profile data and connections data (our Social API), ways to update a user's presence across the network (Presence API), and an activity stream with an API for reading/writing a user's activity (we call this "Updates")."[282]

It is questionable whether a user who consents that his personal data is used to "customize the content you see" (Yahoo Privacy Policy) has any realistic idea of the data processing dimension such customization might entail.

Clearly, overly vague terms are not in line with the aforementioned Art. 6 (b) of the Data Protection Directive. Personal data must be collected for "specified, explicit and legitimate purposes". Having said this, the development of social networking technologies is in full swing, and platforms are constantly working on how to make their services even better, more "social" and interconnected. Also, many UCC platforms that started off as non-profit experiments are seeking now for (new) ways to generate profits and monetize the wealth of "social information" on their networks. As Facebook's experiment with the Facebook Beacon demonstrates, keeping up with developments and changes is in fact one of the primary challenges users face when starting to use such services. Data policies that are presented to the user at a certain moment in time might be not much more than a snapshot of a constantly evolving process of building a platform. Most sites recommend users globally that their policy might change and that it is the responsibility of the user to regularly check their privacy policies (which is unlikely that they do). From the perspective of user protection this policy is probably not enough.

Finally, privacy policies can be both difficult to find, and long and cumbersome to read. Arguably, users that are confronted with illegible privacy policies will not know what they are consenting to, with the effect that data processing becomes unlawful.[283] UCC platforms are working on ways of how to address this problem. For example, Google and Flickr offer in addition to their privacy policies a Q & A section, links to a discussion of selected privacy topics, contact address in case of more questions, etc.[284] Google is moreover experimenting with innovative ways of explaining privacy issues and policies to users (e.g. in form of privacy videos).[285] Others try to keep it short and concise, such as Dailymotion.[286] Some sites also offer two versions of their privacy policy – a long, legal version and a short user-friendly version (e.g. Last.fm). These are useful attempts that might also take the edge out of another problem of users: users, as Internet users in general, are often confronted on a daily basis not only with one but with many privacy policies. The "purpose-limitation-principle" can only work if platforms develop ways to present privacy policies in a clear, user-friendly and, ideally, standardized ways. This also presupposes that users have some kind of idea of the information and protection they are entitled to.

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[279] Including information about the identify of the controller, the purpose of the processing, the (categories) of recipients of the data, and the rights of the data subject.

[280] This is an application that communicates any alteration of one's personal profile immediately to all one's friends. See Heise Online, "Facebook-Community rebelliert gegen neues Feature", 07.09.2006, online available at: http://www.heise.de/newsticker/Facebook-Community-rebelliert-gegen-neues-Feature--/meldung/77886

[281] Yahoo, "Introducing the Yahoo! Open Strategy", 24 April 2008, online available at: http://developer.yahoo.net/blog/archives/2008/04/introducing_the_1.html.

[282] Ibid.

[283] Note that illegible privacy policies might also be held invalid on the basis of national consumer protection laws, Kuner 2003, p. 194.

[284] http://info.yahoo.com/privacy/us/yahoo/ysmt/details.html ; http://www.google.nl/privacy.html

[285] Google, "Google Search Privacy: Plain and Simple", online available at: http://nl.YouTube.com/watch?v=kLgJYBRzUXY

[286] http://www.Dailymotion.com/legal/privacy

5.3.5.   Responsibility for third party data processing

Social networking is not only about users networking with other users, but also and importantly, about UCC platforms networking with other UCC platforms and e-commerce services. For example, MySpace has recently announced a partnership with Yahoo, Twitter and eBay to make public profiles, photos, videos and friend networks available to each other.[287] The plan is to add more sites over time. This move can be seen as part of a more general trend to support profile portability.[288] MySpace together with e.g. Yahoo have also joined Google's "OpenSocial" initiative. OpenSocial develops a common Application Programme Interface ("API") for social applications so that developers can "access a social network's friends and update feeds" in order to build applications across networks.[289] The "ultimate goal" of Open Social is "for any social website to be able to implement the API and host 3rd party social applications". In case of e.g. MySpace, MySpace has opened its platform so far to hundreds of third party widgets (small social applications) developers.[290] Having said this, incidents like the Facebook Beacon case also demonstrate that external cooperation between UCC platforms and other commercial parties is not always greeted with similar enthusiasm on the side of users.

Profile portability, third party applications and third party targeted advertising are all examples of situations in which one platform shares users' personal data with third parties. According to Art. 10, 14 (b) of the Data Protection Directive, a UCC platform has to inform users about all recipients or categories of recipients of users' personal data. The right of users not to have their data transferred to third parties is limited. On the basis of Art. 14 (b) of the Data Protection Directive, users can object to the transfer of data for the purpose of direct marketing (which includes behavioural advertising), but not for the purpose of e.g. general profiling, keeping "friends" up to date about the actions of other "friends", or selling personal data in general.[291] Art. 14 (b) of the Data Protection Directive is, moreover, an opt-out provision. Finally, although UCC platforms need to inform users on the (categories of) third parties with whom the platform operators shares users' personal data, in practice, the information given is often vague. Sentences such as "MySpace also may share your PII with Affiliated Companies if it has a business reason to do so" or "Please be aware our Website may have advertisements and links to websites and services that may collect personal information about you" (HabboHotel) do not enlighten users. An example to the better is Yahoo's Flickr, which provides users with a list and links to the external advertisement partners. [292] Flickr also expressly offers users the opportunity to opt out from targeted advertising using personal data (not: from advertising in general).[293] However, in order to opt out of cookies that third parties affiliates are allowed to install on Flickr pages, a user would have to visit the websites of all the affiliated partners.

UCC platforms generally consider it the responsibility of users to check the privacy policies of the third party. Having said this, for users it is not always easy to find their privacy policies. For example, MySpace does provide a link to the MySpace profile of widget developers, but here users often do not find a link to their privacy policies or company website. What is worse, some developers require users to become a friend first[294] before users can access the profile in search for a data policy. Moreover, when "pimping" their personal profiles users may get in touch with ten or more external developers, all with different privacy policies. It is likely that users will not read all these privacy policies, but instead trust that the platform has done what is necessary to protect their personal data also in relation to third parties. The question that then arises is to what extent platforms have a duty to make sure that

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[287] M Arrington, MySpace embraces DataPortability, Partners with Yahoo, Ebay and Twitter, Techcrunch, 8 May 2008, online available at: http://www.techcrunch.com/2008/05/08/myspace-embraces-data-portability-partners-with-yahoo-ebay-and-twitter/

[288] International Working Group on Data Protection in Telecommunications, *Report and Guidance on Privacy in Social Networks*, Rome Memorandum, Rome, 4 March 2008, p. 4, online available at: http://www.datenschutz-berlin.de/attachments/461/WP_social_network_services.pdf

[289] Open Social, The Web is better when it's social, http://code.google.com/apis/opensocial/ .

[290]http://www.widgetslab.com/customizing-myspace-layouts-widgets-and-more/ ; http://www.rateitall.com/t-21910-myspace-widgets.aspx?age=&zipcode=&gender=&sort=0&pagesize=all

[291] Note that according to Art. 5 (3) of the ePrivacy Directive, users can also object against the use of invisible data controlling tools such as cookies, spyware and web bugs.

[292] http://info.yahoo.com/privacy/us/yahoo/thirdparties/

[293] See at https://login31.marketingsolutions.yahoo.com/adui/signin/loadOptOut.do?status=OPT_OUT&l=en_US The ability is not all encompassing. As Yahoo informs its users: "[t]his opt-out applies to a specific browser rather than a specific user. Therefore you will need to opt-out separately from each computer or browser that you use. Additionally, the opt-out only applies to cookies used by perf.overture.com and not all cookies set by overture.com." http://info.yahoo.com/privacy/us/yahoo/ysmt/details.html

[294] With the effect that the "developer friend" has access to the users' profile and personal network.

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personal data is being shared only with reliable third parties with adequate privacy policies, that these parties comply with existing data protection laws and policies, and that users can actually find and access their privacy policies.

To give some examples of the present practice, MySpace gives third parties access to profile information and not personal information for targeted advertising. It, however, informs users that it does not take responsibility for what third parties do with that data.[295] Though it does

"prohibit […] these companies from sharing your Related Data, non-PII and/or Profile Information with any third party or from using it for any other purpose"

it is unclear how and if MySpace enforces this condition. Moreover, it is unclear to what extent its definition of non-PII is in accordance with the definition of personal data in the Data Protection Directive. Flickr assures users that it only shares information with trusted parties, but again, it is unclear what criteria Flickr applies when choosing business partners, and to what extent it seeks to ensure that third parties do not engage in unlawful processing. Statements like the following from HabboHotels privacy rules are not reassuring either:

"the business partners, strategic partners, purchasers of our business and suppliers may gather information for their own purposes and for that reason we cannot exercise control over the uses to which they apply your personal information. It is, however, our belief that when we supply your details to them, they will keep your details secure and not pass them on to third parties and only use your details to market their own products to you" (HabboHotel).

Arguably, a duty of care for the interests of users when selecting third parties to share data could be deduced from Art. 6 (1) of the Data Protection Directive. Article 6 (1) of the Data Protection Directive requires that personal data must be processed lawfully and fairly. One could argue that simply relying on the integrity of the third party is not sufficient to comply with this obligation. More clarity in this respect would benefit users and UCC platforms.[296] Note that the Data Protection Directive has a broadly drafted liability provision. Anyone who has suffered damages as a result of unlawful processing is entitled to claim a compensation for the damage suffered, unless the data controller can demonstrate that he complied with all his duties under the law and cannot held be responsible (Art. 23 Data Protection Directive). The risk of being held liable is another argument why more clarity regarding their duties would benefit UCC platforms as well as users.

Finally, the directive is quite clear in that it requires data controllers to implement appropriate, state-of-the-art technical and organizational measures to protect personal data also against third parties (Art. 17 of the Data Protection Directive, Art. 4 of the ePrivacy Directive). Measures in place must prevent the unlawful and even accidental destruction or loss, alteration, unauthorized disclosure and access and all other forms of unlawful processing (Art. 17 (1) of the Data Protection Directive). Arguably, this also includes the responsibility to weed out security flaws in a UCC platforms own system.[297] In addition, UCC platforms that fall under the ePrivacy Directive must also inform users in the event of eventual security breaches, including risks that lay outside the control of the platform operator (Art. 4 (2) of the ePrivacy Directive).

Some national Data Protection Authorities have chosen to specify these latter duties again rather broad duties of data controllers, and to give some guidance. For example, in its recent publication the Dutch DPA specifies that controllers must comply with the following five security obligations: to avoid unnecessary publication of personal data, to instruct search engines not to crawl, cache or archive specific pages with personal data, to use passwords or other appropriate measures that can limit the

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[295] "MySpace is not responsible for the privacy practices of websites or other services operated by third parties that are linked to or integrated with the MySpace Services or for the privacy practices of third party Internet advertising companies. Once you leave MySpace Services via such a link, access a third party application (such as widgets) or click on an advertisement, you should check the applicable privacy policy of the third party or advertiser site to determine, among other things, how they will handle any PII they collect from you."

[296] Compare, for example, with Arts. 17 (2) - (4) of the Data Protection Directive that lay down specific duties of care of the data controller when choosing and instructing a data processor who processes personal data on behalf of the controller.

[297] See ENISA 2007, p. 18. Interesting in this context the analysis by A. Felt, D*efacing Facebook: A Security Case Study*, University of Virginia, online available at: http://www.cs.virginia.edu/felt/fbook/facebook-xss.pdf (finding that the Facebook API that allows third party developers to write applications for Facebook can be breached).

target group, to ensure the safety of data transfer by means of the SSL protocol[298] and to secure machines and databases against unauthorized access by third parties.[299] Additional measures that have been suggested in the ongoing discussion about UCC and privacy are: stronger authentication and access control, countermeasures against corporate espionage, SNS spam, SNS pishing, restrict spidering and bulk downloads, image-anonymisation techniques.[300]

5.3.6.   Rights of users, notably the right to delete unlawful data

One major problem with regard to the dissemination of personal data on UCC platforms, as on the Internet in general, is the difficulty of removing the same data for whatever reason. European data protection law addresses this problem only in parts. Under the Data Protection Directive, users do have a right to have their personal data rectified or deleted, however, this right is limited in some ways. Users may require from a data controller

"as appropriate the rectification, erasure or blocking of data the processing of which does not comply with the provisions of this Directive, in particular because of the incomplete or inaccurate nature of the data" (Art. 12 (b) of the Data Protection Directive).

Notably, the information obligation on data controllers includes an obligation to inform data subjects about their rights to access and rectify their data (Article 10 of the Data Protection Directive).

Unclear is, for example, when it is "appropriate" to have one's data deleted. Many platforms are simply silent on the question of what happens to personal data once an account has been terminated. Other UCC platforms find it not appropriate to remove the content once and forever, but keep it in a (non-public) back-up file.[301] A frequently cited reason for this practice is that users would often change their mind, wanting their account to be re-activated. Other platforms use arguments of consumer protection or technical reasons, such as in the privacy policy of Yahoo (Flickr):

"If you ask Yahoo! to delete your Yahoo! account, in most cases your account will be deactivated and then deleted from our user registration database in approximately 90 days. This delay is necessary to discourage users from engaging in fraudulent activity. Please note that any information that we have copied may remain in back-up storage for some period of time after your deletion request. This may be the case even though no information about your account remains in our active user databases."

Equally unclear is whether users can require a platform operator to also effect the deletion of e.g. public comments or personal data that users have left on other user's profiles. To the extent that the other user can be seen as data controller of that profile, he can be requested to delete that personal information.[302] Arguably, users should also be able to contact the operator of the UCC platform with a request for deletion, in particular if the other user cannot be reached or does not comply with the request, but again, the law is not clear in this respect.

In sum, when talking about data protection in the context of UCC platforms and SNSs in particular, it is important to determine where the personal responsibility of individual users for their personal information stops, and where the responsibility of service providers that host and process personal data begins. European data protection law is not very clear in this respect. Its provisions could be stretched almost ad absurdum to cover all kinds of processing of user created content. Although data protection law's vagueness is its strength (it can be applied to all kinds of new situations), it is just as much its weakness: too broad an interpretation of notions such as "personal data" or "processing" and "controller" and the lack of restrictions of its scope risk that data protection law is not an effective tool to protect the core interests of data protection legislation, namely that personal data is processed fairly and the privacy of data subjects is protected.

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[298] Secure Sockets Layer: a standard protocol with public-key-encryption.

[299] Dutch DPA 2007, p. 32-36, with further explanation. For an overview of the guidelines of other DPA's see Kuner 2007, p. 200.

[300] See ENISA 2007, p. 20-23; International Working Group on Data Protection in Telecommunications 2008, p. 4-7.

[301] ENISA 2007, p. 11.

[302] In this sense College Bescherming Persoonsgegevens 2007, p. 40..

In situations where UCC platform users need protection, this study found that theory and practice of European data protection law do not always match. Often users are informed only in very general terms about the different ways in which their personal information is processed, with whom it is shared and how it is deleted. This makes it difficult for consumers to understand to which kinds of processing of their personal data they actually consent. At the same time, there is a limit to what should be expected from "informed users" and the benefit of extra information about data processing in privacy policies. Other problems in this area are the lack of guidance on the responsibilities of data controllers when sharing personal data with third parties, and to guaranteeing the security of personal data. Having said this, a factor that adds to the present level of legal uncertainty is the lack of awareness of and experience with existing data protection law on the side of data controllers. A recent Euro barometer study found that a large share of service providers in Europe are not or only marginally aware of their rights and duties under existing data protection law.

Often overlooked is the fact that users, too, can be subject to data protection laws. Where users publish, collect, share the personal information of other users via UCC platforms, they are considered data controllers, and must observe the same rules that apply to traditional, "professional" data controllers. Having said this, European data protection law has been written with professional data controllers in mind, with the consequence that some of the existing data protection rules might not very well fit the case of individual users or small scale operators of UCC platforms, or fail to balance the rights and freedoms of users (e.g. freedom of expression) and data subjects appropriately (protection of personal life).

5.4. The protection of personal data of children

The emergence of social networking sites has offered children many opportunities to communicate and share information with friends. However, children are often unaware of the risks of publishing their personal data and even if they are aware of the risks, they do not always act that way.[303] The Council of Europe has pointed to the particular vulnerability of children on the Internet. One aspect that the Council of Europe mentioned was the fact that what children publish today on the Internet could be used against them tomorrow, for example by (educational) institutions and prospective employers.[304] Moreover, the Council warned that the traceability of children's activities via the Internet might expose them to criminal activities.[305] Equally, on the World Summit on the Information Society the participants recognized the potential risks that the dissemination of personal information of children on the Internet in general poses, and reaffirmed already existing commitments to incorporate regulatory, self-regulatory, and other effective policies and frameworks to protect children.[306]

The Data Protection Directive and the ePrivacy Directive apply to all natural persons, including children. The directives do not, however, contain any specific provisions about children. Note that the Article 29 Working Party has adopted an Opinion on the protection of children's personal data.[307]

In the following section, we will touch upon a number of issues that arise when existing data protection law is applied to the situation of children on UCC platforms. More specifically, we will focus out of the many possible issues on three: problems relating to children's consent in the processing of their personal data, the question of how children are adequately informed about the processing and sharing of their personal data on UCC platforms as well as the risks, and finally, arguments in favour of a limited duration of storing personal data of children.

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[303] Ofcom 2008, p. 53 subsq. See also G. Davies, "Data Protection Topline Report", report prepared for Tri Media Harrison Cowley, 31 October 2007, online available at: http://www.ico.gov.uk/upload/documents/library/data_protection/detailed_specialist_guides/research_results_topline_report.pdf (last visited on 15 November 2008).

[304] Council of Europe, *Declaration of the Committee of Ministers on protecting the dignity, security and privacy of children on the Internet*. Adopted by the Committee of Ministers on 20 February 2008 at the 1018th meeting of the Ministers' Deputies.

[305] The Council mentions in this respect the solicitation of children for sexual purposes, or otherwise illegal or harmful activities, such as discrimination, bullying, stalking and other forms of harassment, by others, Council of Europe 2008, ibid.

[306] See the Tunis Agenda for the Information society, section 90 q.

[307] Working Document 1/2008 *on the protection of Children's Personal Data*, 18 February 2008, WP147.

5.4.1.   Consent and children

According to Art. 7 (a) of the Data Protection Directive, the lawful processing of personal data requires that the data subject has given its "unambiguous consent"[308] (unless one of the other grounds for processing personal data in Art. 7 (b) – (f) of the Data Protection Directive applies). "Consent" in this context refers to any freely given specific and informed indication of his wishes by which the data subject signifies his agreement to personal data relating to him being processed. [309] Having said this, with regard to children's consent, the legal requirements for such consent vary between Member States. For example, the Dutch Data Protection Act explicitly requires that until the child reaches the age of sixteen, consent of his legal representative is necessary. As opposed, the German Data Protection Act does not have any corresponding provisions. It does, however, require written consent.[310] National civil laws, too, can have requirements for children's consent to be effective. Yet unsolved is the question of how the civil law rules about the validity of children's consent relate to "consent" in the sense of data protection laws (see also Part III, Chapter 6).[311] For example, Dutch civil law stipulates that an explicit parental consent is not needed in situations for which it is widely accepted that minors can perform the act independently, like simple day-to-day activities.[312] The Dutch Data Protection Act has no corresponding provisions, and the question is if the aforementioned exception from the explicit consent requirement in Dutch civil law is relevant, too, in data protection law. Unlike Dutch civil law, German civil law requires always parental consent, unless the act is exclusively advantageous for the child and no act in return is required.[313] Having said this, the German provision has been interpreted in a way that already a very general parental consent might suffice (for example consent to use a computer, irrespective of what the child does with the computer).[314]

In this context, it is interesting to note that the US Children's Online Privacy Protection Act of 1998 (henceforth COPPA) is more precise about parental consent. The Act requires that data controllers need "verifiable parental consent". This implies that data controllers have to undertake any reasonable effort to ensure that a parent receives notice of the operator's collection practices, and authorizes the collection before that information is collected from the child.[315] The guidelines of the Federal Trade Commission[316] clarify that if personal data is only processed internally, it will be sufficient to receive the parent's consent by e-mail. However, in situations that personal data of children are processed to third parties, stricter requirements are in place: parents have to sign a form which has to be send either by post, fax or by a digitally encoded signature by email. The parent can provide its credit card number for verification or he can also call a free number that is handled by the site owner's personnel who have been trained in the mandates of the statute and policies. Only in a few instances no consent is required, like in the case that data is being processed for security reasons.[317]

In practice, privacy policies of existing UCC platforms are very incoherent on the question of children using their sites. Some platforms are silent on that question.[318] Others operate an age limit.[319] Some have different age limits for each country. For example, HabboHotel requires Dutch children to be 12, French children to be 18, and English children to be 16 years old, before they can use the site without consent of their parents/guardian. [320] The wording differs as well. Some websites "ask you to check with your parents",[321] some "encourage" children to get the consent, [322] and others clearly do "not

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[308] Art. 7 Directive 46/95/EC.

[309] In this respect it is worth mentioning that during the first evaluation of the Data Protection Directive a lot of submissions complained about the lack of consistency in the transposition of 'umambigious content' in general. See Analysis and impact study on the implementation of Directive EC 95/46 in Member States, p 44.

[310] Par. 4a Bundesdatenschutzgesetz (German Data Protection law).

[311] See J. Nouwt, *"Kinderen, Internet en privacy"* , 2 *Privacy & informatie* 2003, p. 63.

[312] Article 1:234 para. 3 Burgerlijk Wetboek (Dutch Civil Code).

[313] This requirement is applied very strictly, see M. Fiege, *De autonomie van de minderjarige in het recht*, Gouda Quint, Arnhem, 1993 (diss. Amsterdam).

[314] par. 107 Bürgerliches Gesetzbuch (BGB, German civil code) and see its clarification in: *Münchener Kommentar, Bürgerliches Gesetzbuch*, Allgemeiner Teil 4, Auflage 2001. See also the case BGH FamRZ 1977, 44.

[315] Section 1302 (9) of the COPPA.

[316] www.ftc.gov

[317] Section 1303 (b) (2) of the COPPA.

[318] Privacy statements Flickr and Mobango.

[319] Privacy Statement MySpaces.

[320] Privcay Statement Hotel Habbo.

[321] Privacy statement Hotel Habbo (in dutch: 'verzoeken', in french: 'nous pensons qu'il serait préférable que').

[322] Privacy Statement Fast.FM.

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permit you"[323] to register on the site. Having said this, apparently most UCC platforms do only little to safeguard that age limits are observed and verified.

Arguably, some existing co-regulatory initiatives in this field could set a new, higher standard for the protection of personal data of children. In the Key Principles of Social Networking sites,[324] two major UCC sites, MySpace and Facebook, have committed to adapt website design and default setting in order to afford a high level of protection to children. For example, according to the Key Principles, on MySpace users under 16 are automatically assigned a private profile. If users under 16 override their privacy settings, they are still only viewable by other users under 18. Moreover, users over 18 years cannot search for users under 18 years (for a more detailed overview see Annexes).

5.4.2. Informing children on how their personal data will be collected and processed

We already mentioned the obligation of data controllers to inform the data subject about his identity, the purposes of the processing, the transfer of the data to third parties and about the data subject's right of access and right to rectify.[325] Obviously, children would need to be informed in a way that responds to their mental capabilities, experience and situation. The Article 29 Working Party recommends that special emphasis should be put on giving layered notices based on the use of simple, concise and educational language that can be easily understood.[326] First, a shorter notice should contain basic information to be provided when collecting personal data either directly from the data subject or from a third party. This should be accompanied by a more detailed notice, perhaps via a hyperlink, where all the relevant details are provided. The right time and place are important, the notices should be shown directly on the screen, prior to collecting the information.[327]

It is interesting to note that similar, though more specific requirements have made their way into the law in the United States. The COPPA requires that websites place the link to their privacy policy in a "clear and prominent place" on the home page and at every area on the website where children are asked to provide information as well. Moreover, to be "clear and prominent" the link has to be noticeable by children through the use of different type sizes, different fonts, different colours, or contrasting backgrounds.

5.4.3. Limited storage of personal data of children

Personal data of children can quickly become outdated or change their meaning. Formerly "innocent" data can also get a new meaning once children grow older. Having said this, the relevant provisions in the Data Protection Directive about data retention[328] and data accuracy[329] have not been written with children in mind. In order to remedy this omission, it has been argued that data controllers should be obliged to exercise more extensive duties of care with regard to personal data of children.[330] In particular, the period for which personal data is stored should be shorter, and ideally, have an automatic expiry date that takes into account the interests of children. The Committee of Ministers of the Council of Europe invites the Contracting States to explore the possibilities to delete data processed by websites within a reasonably short period of time. The Committee has also declared that there should be no lasting or permanently accessible record of the content created by children on the Internet, which challenges their dignity, security and privacy.

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[323] Privacy Statement Dailymotion.

[324] Joint Statement on Key Principles of Social Networking Sites Safety, online available at: http://www.ncdoj.com/DocumentStreamerClient?directory=PressReleases/&file=AG%20Cooper%20MySpace%20agreement.pdf (MySpace) and http://www.iowa.gov/government/ag/latest_news/releases/may_2008/Facebook_all_STMNT.pdf (Facebook).

[325] Article 10 of the Data Protection Directive.

[326] Working Document 1/2008 *on the protection of Children's Personal Data*, 18 February 2008, WP 147.

[327] See also Article 29 Working Party, Recommendation 2/2001 *on certain minimum requirements for collecting personal data on-line in the European Union*, WP 43 (adopted 17 May 2001) which gives clear guidance.

[328] Art. 6 par. 1 e) Directive of the Data Protection Directive.

[329] Art. 6 par. 1 d) Directive of the Data Protection Directive.

[330] See e.g. Article 29 Working Party 2008, p. 8.

In sum, the European Data Protection Directive does not mention children at all, though it leaves room to interpret obligations for platform operators in a child-friendly way. Part of an effective safety strategy to protect children on the Internet is to make parents aware of what happens to their children's personal data. Therefore it is important that platform operators obtain parental consent before children use their services. In the absence of relevant rules, there is a high level of disparity of how platforms deal with children using their platforms, and parental consent, and member states have developed differing approaches. Other provisions in the Data Protection Directive, too, do not explicitly take into account the interests of children. Examples are the information duties and provisions with respect to data quality and the period of data retention. In this respect, European law could learn from the United States, where platform operators are required by law to exercise special duties of care to protect this most vulnerable group of Internet users, and of users of UCC in specific.

5.5. Personal data and criminal conduct

Users on user created platforms, like users on the Internet in general, can also be victim to a range of unlawful activity with regards to personal data. UCC platform users experience more and more incidents of identify theft, online stalking,[331] spear phishing,[332] "zombification" of SNS accounts,[333] infiltration,[334] profile squatting,[335] reputation slander,[336] cyber bullying,[337] espionage, social spam,[338] to name but some examples.[339] As ENISA points out, many of these activities can be encountered not only on UCC platforms. However, UCC platforms, and here in particular the SN element, can add new dimensions to these forms of abuse of personal data (e.g. spear pishing), make the victim of the attack particularly vulnerable (cyber bullying) or aggravate the consequences (e.g. in case of defamation or reputation slander).[340]

From a legal point of view, the most pressing question is if the existing legal framework is apt to deal with these issues. This question is the more pressing as in practice, many conflicts around users' privacy will take place outside data protection law, and within the rules on defamation, libel, fraud, blackmail, etc. More research is needed how effective national criminal and civil laws are in dealing with the abuse of personal data in the UCC context. A difficulty is that national penal laws are not harmonized, and that how they may deal or not deal with these issues can differ from member state to member state. More research is needed also regarding the question under which conditions UCC platforms risk liability according to national duties of care under national tort law. Finally, more research is needed in appropriate ways of sanctioning personal data related crime. For example, where the infringing activity consists of publishing false or offensive information about the victim, this information is available on the Web even after the infringer has been punished. Requiring the infringer (also) to painstakingly remove that information could be more in the interest of the victim and the public than e.g. financial compensation or fines alone.

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[331] The attacker can see when the user is online and contacts the victim via SNS, email, instant messenger, eventually he also can get access to the victim's friends' lists and engage in reputation slander, etc.

[332] Individually targeted phishing attacks making use of self-created profiles, see also T. Jagatic, N. Johnson, M. Jakobsson, F. Menczer, *Social Phishing*, ACM, October 2007, online available at: http://portal.acm.org/citation.cfm?doid=1290958.1290968

[333] Abuse of personal profiles for e.g. XSS attacks or advertising, see ENISA 2007, p. 12.

[334] Invading into " private space", that is space of closely restricted friends.

[335] The creation of fake profiles, mostly under the names of well-known people or popular brands.

[336] Using SNS to make false or malicious claims that harm someone's reputation.

[337] When minors threaten, humiliate, embarrass or torment other minors using Internet technologies, see a more elaborate explanation at: http://www.stopcyberbullying.org/what_is_cyberbullying_exactly.html

[338] Spamming "friends" using SNS as a communication channel, instead of email.

ENISA 2007, p. 11. As ENISA points out, apart from the "usual" problems of spam, such as traffic overload and lost of trust, social spam can also reduce the very value of a social network to its users if the network becomes "diluted" by fake profiles, ENISA 2007, p. 12.

[339] For an excellent insight in SNS related threats and risks, see ENISA 2007.

[340] ENISA 2007, p. 8-15.

5.6. Analysis and Conclusions

European data protection law has been conceived before the processing of personal data became a core element of certain services operating on the Internet (instead of being merely an operational side aspect). As a consequence, users and the industry lack guidance regarding their rights and duties when personal data is shared with large numbers of third parties whose goal it is to monetise personal data. At the same time, the study found that the privacy policies of UCC platforms do not always reflect the high level of data protection that European law aspires to. The situation is rendered more difficult, of course, in situations where privacy policies are modelled according to United States law rather than European law.

A recurring issue with the application of European data protection law to UCC is the unclear allocation of responsibilities for privacy and data protection across UCC platforms and their users. As a consequence of the user-driven nature of UCC platforms, many privacy issues that arise on UCC platforms are user-driven as well. Existing data protection law is only to a very limited extent prepared to respond to this dilemma. Existing data protection laws are fully applicable to individual, "private" data controllers, but some of its rules do better fit large-scale professional operators than amateur users. This is because existing data protection law has been designed to address (large) commercial entities and public authorities that process personal data as part of their business routine. It is not prepared for a situation in which individual users assume massively activities that, so far, have been reserved to professional data controllers.[341]

Is there a need to adapt the law? More research would need to be done into European and national data protection laws to answer that question. More research is also needed into the effect of self- and co-regulatory measures in this field, as well as the potential of technical solutions that can allow users to exercise greater control over their personal data, such as anonymisation techniques (and the pros and cons), privacy enhancing technologies,[342] techniques that restrict spam, phising, bulk downloads and other practices that endanger users' privacy and the functioning of UCC platforms, and the Internet in general.

Having said this, this analysis has identified a number of considerations that should be taken into account in future research and policy discussions:

1) To the extent that users themselves add to the risk by publishing personal information on the Internet without taking appropriate security measures, awareness raising measures and the proliferation of technical privacy solutions might be better responses than changing the law.

2) The data processing practices of many UCC platforms are very dynamic; platforms are evolving in their constant search for new business models. The consens-based, purpose-limitation based model behind the Data Protection Directive is not particularly well suited for these dynamic developments. Having said this, it is important that users and other interested parties such as regulators are sufficiently aware of new data processing practices, and that user information and transparency are effectively safeguarded.

3) Some issues around the protection of personal information on UCC platforms are probably better addressed in other fields of law than data protection law, for example tort law, contract law, consumer protection law, intellectual property law, criminal law.

4) Other issues need to be discussed more intensively (also) in the context of privacy and data protection law. One aspect is the protection of personal data of minors, and how existing law could be adapted to reflect a higher level of protection. In this context, it is important to take into account the experience, situation and behaviour of minors on the Internet. Another aspect is behavioural advertising, and whether the combination of commercial speech and social interaction calls for more pro-active rules, comparable to the already existing rules for spam and cookies. An area that this study has not looked into in more detail, but that might become very relevant is the competition law dimension of data collection and processing, including aspects of market dominance and possible lock-in effects due to the lack of portability of personal profiles.

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[341] See also Recital 2 of the Data Protection Directive: " Whereas data-processing systems are designed to serve man; whereas they must… contribute to economic and social progress, trade expansion and the well-being of individuals".
[342] See e.g. the Prime Life Project, for more information see http://www.primelife.eu .

5) Some of the existing data protection rules, such as the notification duties or the duty to guarantee the security of personal data do not fit particularly well the situation of individual users. Insofar, adaptations of existing data protection laws might be needed.

6) In the ongoing discussion about privacy in social networks and on UCC platforms a broad range of interesting solutions to address privacy issues in a UCC/SNS context has been suggested. When discussing these solutions it is important to keep in mind the practical feasibility in a UCC context, also bearing in mind that in many instances the addressees will be individual users who act as data controllers.

7) Solutions must be coherent with other fields of law, such as intellectual property law or e-commerce law. Last but not least, solutions must be coherent in themselves.

As a final remark, it is important to be aware of the fact that many issues UCC raises in relation to data protection law are not specific to the UCC context, but are more generally symptomatic of problems with data protection on the Internet. Not only UCC platforms, but many aspects of our information economy are increasingly thriving on personalized products, services and marketing strategies. Equally important is it to be aware of the full range of privacy problems in this context. They go far beyond the issues that the existing data protection directives (and this study) address.

6. UCC and contract law

As mentioned above in the section on copyright law, a constellation of three possible contractual relations may play a role in the production and dissemination of UCC: i) between the platform owner and its users; ii) between users themselves; and iii) with respect to the use of third party content. The contractual relationship between the platform owner and the users actually has the potential of raising the most concerns, primarily because such contracts purport to regulate all aspects of the user's participation to the creation and distribution of UCC, including intellectual property rights, privacy, warranties and liability disclaimers. The first uncertainty relates to the binding character of the licenses. In view of the varying ways in which the licenses are brought to the user's attention, the question arises whether the agreement concluded at a distance has been validly formed between the parties. Are licenses concluded with minors also valid? Are systematic warranty disclaimers and limitations of liability admissible under European private law? Does the fact that UCC is distributed free of charge change anything to the validity of such stipulations? Though probably less problematic than the exclusion of warranty and liability, the clause pertaining to the unilateral modification or termination of the agreement may raise problems. For the purposes of this chapter, we shall focus on the licenses between UCC platform owners and their users and disregard the contractual relationship between users themselves and with respect to third party content.

It is important to point out at the outset that contract law remains largely unharmonized across the Member States, mainly because it is generally considered as a matter not falling under the competence of the European Union. Nevertheless important efforts have been deployed over the past decade to approximate the laws of the Member States in the field of contract law. The European Community has so far been only indirectly involved in the process.[343] The initiative has been limited to rationalizing and tidying up the *acquis* in the field of consumer protection and to producing optional standard contract terms and conditions. Besides the scattered European legislation in the area[344], an independent body of experts known as the Commission on European Contract Law has elaborated Principles of European Contract Law[345], which cover the core rules of contract, formation, authority of agents, validity, interpretation, contents, performance, non-performance (breach) and remedies. The main consequence of this is that although there is a common core of rules on contract law, these are very likely to be interpreted differently at national level. In the following pages, we shall consider the issue of the contract formation, disclaimer of warranties, limitation of liability and termination clause in the light of the European directives. Any reference to national law is only indicative and is not meant to be exhaustive.

6.1. Formation of contract

The terms of use put up by UCC platform operators may appear in various ways on the user's computer-screen display. In some cases, like MyVideo or Flickr, the user can access the site or up- or download content only once he has registered for the site or once he has given assent to the terms of the on-line screen license, by clicking with the mouse in the appropriate dialogue box. In most cases, however, the contract terms are simply made available via a hyperlink located somewhere on the site's home page. For example, the following notice may appear on a page that is accessible via hyperlink posted at the bottom of the homepage: "this Terms of Use Agreement ("Agreement") sets forth the legally binding terms for your use of the MySpace Services. By using the MySpace Services, you agree to be bound by this Agreement". Two questions arise in respect of such terms: did the user have sufficient opportunity to review the terms of the license prior to the completion of the transaction and did his conduct constitute a manifestation of intention on his part to be bound by the contract?

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[343] European Parliament, Committee on Legal Affairs and the Internal Market, European Parliament resolution on European contract law and the revision of the acquis: the way forward (2005/2022(INI)), Brussels, 23 March 2006.

[344] For example: Directive 2000/31/EC of the European Parliament and of the Council of 8 June 2000 on Certain Legal Aspects of Information Society Services, in Particular Electronic Commerce, in the Internal Market (Directive on electronic commerce), 17 July 2000, OJ L 178/1, art. 9 and ff. (hereinafter 'E-Commerce Directive'); Directive 97/7/EC of the European Parliament and of the Council of 20 May 1997 on the Protection of Consumers in Respect of Distance Contracts, OJ L 144, 4 June 1997, p. 19-27, art. 2.

[345] See: http://ec.europa.eu/internal_market/contractlaw/links_en.htm

6.1.1. Standard form contract

Virtually all terms of use of UCC platform owners take the form of a non-negotiated contract. Like any contract, standard form contracts are defined as a juridical act formed by the exchange of an offer and its acceptance, which can take place in any form, unless the parties have agreed otherwise[346]. As such, the requirement of an offer and acceptance disqualifies as binding contracts the policies, guidelines, and disclaimers posted by Wikipedia. Indeed, the notices published by Wikipedia are labelled "Policy" rather than "agreement" or "contract", for which there are no rules on acceptance or presumption of agreement on the part of the user. Wikipedia further refers to the GNU Free Documentation License (GFDL) for the licensing of the copyright on the content of the encyclopaedia, but nowhere is there a rule on acceptance associated with the use of the license or is there a mention that the Wikipedia user is presumed to have agreed to the terms. In view of the lack of a proper offer and acceptance, neither the Disclaimers, the Policies nor the GFDL constitute a binding contract on the parties, and therefore no enforceable right and obligation ensues on the parties. By contrast, the ToU of MySpace and other platforms indicate the platform operator's intention to conclude a binding contract with the user, by specifying that:

"Users agree with the Terms of Use by using the MySpace website whether they are just a visitor or a registered member. Users are only authorized to use the Services if they agree to abide by all applicable laws and the Terms of Use. When registering as a member a user has to accept the Terms by clicking on a box. There is a link to the Terms".

Online standard form contracts are generally held valid in Europe, provided that the purchaser of the good or service is given the opportunity to review the terms of the license and to give assent before completing the purchase[347]. Does the mere act by a user of up- or downloading his work onto his computer, like putting a video on YouTube or a photograph on Flickr, constitute a valid manifestation of intention on his part to be bound by the license agreement? The answer to this question actually depends on the circumstances of each case. Several factors may influence if and how the user has manifested his acceptance to the terms, for example if he was asked or not to click "I agree" in a dialog box before downloading or installing the software required for the use of the UCC platform. Of course, according to the law, acceptance may take any form; it may also be inferred from conduct.[348] Thus, even if the user does not get the opportunity to click "I agree" in the box, he may still be binding himself to the terms of the license by the sheer act of up- or downloading content unto or from the UCC platform. More and more national courts are ready to uphold the validity of a contract formed by using of a hyperlink to refer to general conditions. Placing a visible link to the terms of use on a webpage nowadays constitutes a customary practice on the Internet that is considered as giving the consumer sufficient opportunity to review the terms of the license prior to the completion of the transaction.[349]

Moreover, the law of some Member States, the intention to enter into contract no longer needs to be directed to the content of the general conditions, but rather to the applicability of the set of conditions as a whole to the actual transaction. When the applicability of a set of standard terms is accepted, the other party cannot invoke the fact that he was not aware of the content of the terms.[350] To protect the consumer against abuse, Directive 93/13/EEC of 5 April 1993 on unfair terms in consumer contract provides that a clause in general conditions may be annulled if it is unreasonably onerous because of its content.[351] Moreover, the general conditions may also be annulled if the user has not given the other party a reasonable opportunity to take notice of the general conditions.

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[346] Principles of European Contract Law, art. 2:101.

[347] The enforceability of click-wrap licenses is confirmed by Article 9 (1) of E-Commerce Directive. See also: BGH, 14. June 2006, No. I ZR 75/03 (Einbeziehung von AGB bei Bestellung im Internet JurPC) Web-Dok. 104/2006, Abs. 1 – 27.

[348] B. Trompenaars, 'Legal Support for Online Contracts', in P.B. Hugenholtz (ed.), Copyright and Electronic Commerce, The Hague, Kluwer Law International 2000, pp. 267-307, p. 272.

[349] In Germany: German Federal High Court of Justice, 14. June 2006, No. I ZR 75/03 (Einbeziehung von AGB bei Bestellung im Internet JurPC) Web-Dok. 104/2006, Abs. 1 – 27, where the Court wrote: ,Für die Möglichkeit der Kenntnisverschaffung i.S. des § 2 Abs. 1 Nr. 2 AGBG (§ 305 Abs. 2 Nr. 2 BGB) genügt es daher, wenn die Allgemeinen Geschäftsbedingungen wie im vorliegenden Fall über einen auf der Bestellseite gut sichtbaren Link aufgerufen und ausgedruckt werden können'. In the Netherlands: Sector kanton Rechtbank 's-Hertogenbosch, 30 November 2006, LJN: AZ4622.

[350] Explanatory Memorandum, Parliamentary History, No., p. 1573.

[351] Council Directive 93/13/EEC of 5 April 1993 on unfair terms in consumer contracts, OJ L 95, 21 April 1993, p. 29–34.

In addition to the requirements on the formation of standard form contracts, the users of non-negotiated contracts concluded at a distance must comply with a number of obligations when dealing with consumers. The provisions of the EC Directive on distance contracts[352] apply to "any contract concerning goods or services concluded between a supplier and a consumer under an organized distance sales or service-provision scheme run by the supplier, who, for the purpose of the contract, makes exclusive use of one or more means of distance communication up to and including the moment at which the contract is concluded". At the pre-contractual stage, these provisions mainly impose an obligation of information on the user of standard terms regarding, amongst other things, the supplier's name, the main characteristics of the goods or services and the total price. In addition, the consumer must receive written confirmation or confirmation in another durable medium available and accessible to him of the information in good time during the performance of the contract, and at the latest at the time of delivery where goods not for delivery to third parties are concerned, unless the information has already been given to the consumer prior to conclusion of the contract in writing or on another durable medium available and accessible to him.

To summarize on the applicability of the terms of use of UCC, we believe that most licenses will be binding for the licensee if, by his or her actions, the licensee has manifested his or her intention to be bound by the set of terms. Since the licensee is generally a consumer, the terms will be applicable provided that the latter has been given a reasonable opportunity to take notice of the license terms before or during the registration process. Moreover, the UCC operator is required to provide certain information to the consumer prior to the conclusion of the transaction. Again, whether this has occurred in practice will be a question of fact that the courts will have to decide. The consequence of a not properly formed contract is that the parties may not take any advantage of the respective rights and obligations under the contract.

6.1.2. Contracts with minors

UCC platforms primarily attract a young public, including an important proportion of participants in the age segment of 10-18 years. Arguably, most sites examined in the context of this study have put an age limit for participation in their network. However, as far as one can tell, there a little or no technical means to verify the accuracy of the age entered upon registration. In case of websites where no registration is necessary, no control can be effectuated. This leaves the question of the validity of a license concluded with a minor entirely open. Although the circumstances at hand were entirely different than those that are the subject of this study, recent case law in Germany has recognized a certain responsibility on the part of the provider to verify the age of his contractual partner, especially where the content of the website is for adult eyes only.[353]

Be that as it may, the fact that these participants are minors in front of the law may raise difficulties since persons under the age of eighteen years are normally considered to lack capacity to undergo a contractual obligation. In principle, contracts concluded by incapable persons are to be declared null and void. However, to preserve the confidence of market players, the law usually does make some accommodations with respect to the validity of contracts concluded in the context of daily transactions. A first question arises in this respect as to whether the acceptance of the terms of use of a UCC platform indeed constitutes a daily matter. A corollary question is whether by registering onto a site or by clicking "I Agree" in a dialogue box, the minor indeed intends to manifest his assent to the terms. The answer to the first question would probably depend on the provisions of the law or the findings of the jurisprudence in the different member states. If the transaction cannot be qualified as a "daily matter" than the minor must be represented by his legal guardian in order to conclude a valid and binding contract. The answer to the second question would primarily be a matter of fact to be assessed taking account for example of the age of the user, his familiarity with the site and with the licensing practice. Again, because these rules are not harmonized, Member States have adopted varying solutions in this respect.

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[352] Directive 97/7/EC of the European Parliament and of the Council of 20 May 1997 on the Protection of Consumers in Respect of Distance Contracts, OJ, L 144, 4 June 1997, p. 19-27, art. 2.
[353] German Federal High Court of Justice, 18 October 2007, NO. I ZR 102/05 (ueber18.de).

In the Netherlands for instance, this situation is expressly covered by article 1:234 paragraph 3 of the Civil Code, which states that "authorization is presumed to have been granted to the minor, where it concerns a juridical act that a person of his age can usually be expected to accomplish independently taking the social norms into account".[354] In Belgium, the rule would be sensibly the same, while in Germany only juridical acts that are favourable to the minor will be accepted as valid. This rule is interpreted restrictively, however, so it remains unclear whether the acceptance of UCC terms of use falls under the qualification of "acts favourable to the minor"[355]. In the United Kingdom, the law recognizes a criterion of necessity, which can also be applied to beneficial services. According to the rules of common law, it appears that this criterion does not concern luxury goods or services. The fact is that the terms of use of a UCC platform are to be qualified neither as a luxury good or service nor as a necessity. Consequently, these contracts will not necessarily be binding on the minor.

In sum, it is unclear whether the terms of use of a UCC platform are binding at all on a minor. The general rule in this matter is that contracts concluded by minors are null and void. However, an exception is sometimes made in certain jurisdictions for contracts concluded in relation to daily matters. It is a question of law and fact whether the acceptance of the terms of use of a UCC platform can be qualified as a daily matter. If the transaction cannot be qualified as a "daily matter" than the minor must be presented by his legal guardian in order to conclude a valid and binding contract. If it can be qualified as a "daily matter", the minor user must, however, intend to manifest his assent to the terms by registering onto a site or by clicking "I Agree" in a dialogue box. If there is no intention to manifest assent to the terms, then there is no binding contract.

6.2. Warranty Disclaimer

Following the example of software licenses, it has become common practice for the terms of use of UCC platform operators to contain a stipulation according to which the licensor disclaims any warranty for the content and the software. This is normally achieved by stating that the program or content is provided "as is".

"sulake UK Ltd (HabboHotel) gives no warranty that the contents of the Website and the Software and other services available from the Website are free from error, interruption of the Service, infection by viruses or anything else that has contaminating or destructive properties and Sulake UK Ltd accepts no liability in respect thereof".

Are such broad warranty disclaimers valid? Can the licensor disclaim any warranty on the service without any limit? What does the concept of warranty exactly entail? Does it relate only to the functionality or conformity of a product or service or does the concept of warranty also cover the possible harm caused by the seller or supplier's software to the user's property?

The issue of warranty disclaimers is, again, not harmonized throughout the European Union to the exception of Directive 1999/44/EC on certain aspects of the sale of consumer goods and associated guarantees.[356] This Directive defines the term "guarantee" as any undertaking by a seller or producer to the consumer, given without extra charge, to reimburse the price paid or to replace, repair or handle consumer goods in any way if they do not meet the specifications set out in the guarantee statement or in the relevant advertising. The Directive on Sale of Consumer Goods provides that the seller must deliver goods which are in conformity with the sales contract. However, it does not define the notion of delivery. This is unfortunate, since the moment of delivery is the starting point for time limits for the exercise of fundamental consumer rights, e.g. remedies for non-conformity. The concept of delivery is also important for the passing of the risk.

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[354] M. Fiege 1993.

[355] *Münchener Kommentar*, Bürgerliches Gesetzbuch, Allgemeiner Teil, 4. edition, 2001. See: Amtsgericht Düsseldorf, 2 August 2006 Nr. 52 C 17756/05 in which the court annulled a contract passed by a minor for the on-line purchase of ringtones in the amount of 38,87 Euro.

[356] Directive 1999/44/EC of the European Parliament and of the Council of 25 May 1999 on certain aspects of the sale of consumer goods and associated guarantees, OJ L 171 , 07/07/1999, p. 12 – 16.

The purpose of this Directive is the approximation of the laws, regulations and administrative provisions of the Member States on certain aspects of the sale of consumer goods and associated guarantees in order to ensure a uniform minimum level of consumer protection in the context of the internal market. Directive 1999/44/EC is only applicable to the sale of tangible consumer goods, however. While it is not entirely clear whether software, as such, can be qualified as a tangible good, whereby the supplier would have to live-up to the standard of usability and functionality set by the Directive[357], it is clear that user created content would most likely not qualify as a tangible good. As a result, since the supply of digital content is not covered by the Directive in its present form, a consumer who downloads music from the Internet or who incurs damages from the use of software provided on a UCC platform is not protected. An extension of the coverage of consumer protection rules to such situations would allow consumers to make use of remedies for nonconformity and obtain damages.

The provisions of Directive 93/13/EEC of 5 April 1993 on unfair terms in consumer contract may provide some additional relief against unfair warranty disclaimers. Although the clause does not specifically address the issue of warranty disclaimers, a claimant would probably be able to rely on the fact that in the list of "presumably unfair" terms appearing in Annex to the Directive includes the act of:

"inappropriately excluding or limiting the legal rights of the consumer vis-à-vis the seller or supplier or another party in the event of total or partial non-performance or inadequate performance by the seller or supplier of any of the contractual obligations, including the option of offsetting a debt owed to the seller or supplier against any claim which the consumer may have against him".

In addition, the "unfair" character of a warranty disclaimer could also lead to its invalidation pursuant to the general provisions of the Directive. Article 1 of the Directive states that "a contractual term which has not been individually negotiated shall be regarded as unfair if, contrary to the requirement of good faith, it causes a significant imbalance in the parties" rights and obligations arising under the contract, to the detriment of the consumer. According to the Directive, "unfairness" is to be assessed taking into account the nature of the goods or services for which the contract was concluded and by referring, at the time of conclusion of the contract, to all the circumstances attending the conclusion of the contract and to all other terms of the contract or of another contract on which it is dependent. Be that as it may, the law applicable to warranty disclaimers throughout the Member States varies considerably, ranging from a qualified tolerance to a prohibition.[358]

With regard to UCC terms of use, it remains unclear to what extent a warranty disclaimer attached to a free service can be qualified as unfair. It could be argued that, since the access to and use of UCC platform is licensed free of charge, there is no warranty in favour of the user and the owner cannot be compelled to deliver other goods, repair or replace defective goods, rescind the contract or pay damages[359]. It is true, however, that the fairness of a warranty clause is usually assessed by taking into account the price paid in Euro for a good or service. What if the price paid by users was not to be evaluated in money, but rather in the disclosure and preservation of personal information? It could then be argued that the broad disclaimer of warranty put forward by most UCC platform does cause a significant imbalance in the parties' rights and obligations arising under the contract, to the detriment of the consumer, since the latter gives up a significant amount of personal information in exchange for which he receives no guarantee of conformity of the goods or services.

In sum, the issue of warranty disclaimers is, again, not harmonized throughout the European Union. Unfair disclaimers could probably be attacked pursuant to the provisions of the Directive on unfair contract terms in consumer contracts, but the question remains to what extent a warranty disclaimer attached to a "free" service can be qualified as unfair.

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[357] This issue is currently under review by the European Commission *Green Paper on the Review of the Consumer Acquis*, Brussels, 8 February 2007, COM (2006) 744 final.

[358] See: M. Kurer et al., Warranties and disclaimers : limitation of liability in consumer-related transactions, The Hague, Kluwer Law International, 2002, p. 28 et seq.

[359] L. Guibault and O. van Daalen, Unravelling the Myth around Open Source Licenses, The Hague, TMC Asser Press, 2006, p. 80.

6.3. Limitation of liability

Most, if not all, UCC terms of use contain a stipulation according to which the licensor limits all liability for damages resulting, directly or indirectly, from the use of the program or the content made available on the website. For example, the Terms of Use of the MySpace site provide that:

"in no event shall MySpace be liable to you or any third party for any indirect, consequential, exemplary, incidental, special or punitive damages, including lost profit damages arising from your use of the MySpace services, even if MySpace has been advised of the possibility of such damages. notwithstanding anything to the contrary contained herein, MySpace's liability to you for any cause whatsoever and regardless of the form of the action, will at all times be limited to the amount paid, if any, by you to MySpace for the MySpace services during the term of membership."

In principle, a restriction or disclaimer of one's liability is permitted under civil law. This flows from the principle of the freedom of contract, according to which the parties to an agreement are free to determine the content of that agreement. However, the law does place some restrictions upon the parties' freedom of contract, although such restrictions are subject to the provisions of national law, for this area of the law is not harmonized either.

One important remark to make at the outset is that, in application of the principle of privity of contracts, any limitation of liability addressed to "third parties" is null and void. Indeed, UCC platform operators like MySpace and others cannot validly exclude their liability towards persons who are not a party to the agreement. Moreover, as seen in the chapter 4 of the third part, a UCC platform will not be exempted from liability under the E-Commerce Directive, if it had actual knowledge of illegal activities taking place on its website – including the posting of unlawful content by its users – and did nothing to put a stop to it.

The disclaimer of liability could itself be void as contrary to the general principle of good faith, common decency or equity and fairness. In the case of restrictions of liability, it is generally accepted that an agreement, which restricts a person's liability for damages, which were caused by his own deliberate behaviour, is void. Depending on the law of the Member State, liability for damages that result from a person's own gross negligence can be restricted or not. Again the provisions of Directive 93/13/EEC of 5 April 1993 on unfair terms in consumer contract may provide some additional relief against unfair limitation of liability. It follows from the above that, a stipulation limiting the licensor's liability could be annulled, if contrary to the requirement of good faith, it caused significant imbalance in the parties' rights and obligations arising under the contract, to the detriment of the consumer. This applies of course to any form of direct liability. However, it could also be argued that a UCC platform operator would probably not be able to limit his (indirect) liability, if he knew or had reason to know that a contracting partner would use a user's content or personal data in an improper manner. In such circumstances, an exoneration of liability could be interpreted as contrary to the requirement of good faith.

The indicative list of "presumably unfair" terms included in the Annex to the Directive on unfair contract terms expressly mentions the clause "excluding or limiting the legal liability of a seller or supplier in the event of the death of a consumer or personal injury to the latter resulting from an act or omission of that seller or supplier". In the context of UCC, such an exoneration of liability would only play a role in the rare instances where it could be demonstrated that the use of software or other content has resulted in the death or physical injury of its user. While it is not all together excluded, the occurrence of such circumstances would, in our opinion, be very exceptional. Whether the exoneration of liability would be held valid would, of course, depend on the circumstances[360].

The fact that most UCC works are distributed for free probably also tends to exclude any product liability on the part of the licensor, at least in some Member States (But also see the discussion in Part III, section 6.4). The fact that most UCC software and content is distributed for free constitutes one factor to take into consideration when evaluating the onerous character of the limitation of liability. Nevertheless, there may be circumstances where the limitation of liability should not be upheld.

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[360] HR 9 October 1992, NJ 1994 Nos., 286-289 (Maassluis).

In sum, clauses limiting the licensor's liability are acceptable, as long as they do not conflict with the principle of good faith, reasonableness and equity. In certain circumstances, a limitation of liability could be deemed unfair if it caused significant imbalance in the parties' rights and obligations arising under the contract, to the detriment of the consumer.

6.4. Modification of terms and termination of contract

A somewhat less pressing issue, but one which still deserves some attention is the question of the unilateral modification of terms and the unilateral termination of contract. It is generally accepted in contract law that, unless the parties have stipulated otherwise, contracts that are concluded for a fixed period of time may only be terminated at the end of their term. For contracts that are concluded for an undetermined period of time, the termination by one of the parties is possible, if done according to the principle of good faith[361]. However, a party is entitled to ask for the termination of the agreement if the other party has substantially violated his obligations under the contract.

The conditions under which termination may be invoked by the user vary from one provider to the other. Actually, not all terms of use examined here expressly regulate the circumstances in which the license may be terminated nor do they all specify that the terms may be modified from time to time without express notification to the user. MySpace UK is one example of a provider that makes use of both possibilities:

"MySpace can modify this agreement from time up to time. Such modifications are valid as from the moment that they are posted on MySpace-website. When you continue to use MySpace-services after MySpace has posted a revised agreement, this means that you agree with the revised agreement. For this reason it is important that you read through this agreement regularly in order to be informed of all modifications".

"this Agreement, and any posted revision to this Agreement, shall remain in full force and effect while you use the MySpace Services or are a Member. You may terminate your Membership at any time, for any reason, by following the instructions on the Member's Account Settings page. MySpace may terminate your Membership at any time, for any or no reason, with or without prior notice or explanation, and without liability. Even after Membership is terminated, this Agreement will remain in effect, including Sections 5-17."

At first glance the terms of use of MySpace appear excessive, most of all because they place the burden on the user to keep informed of any changes and because most clauses persist even after termination of the agreement. Among the surviving conditions of use are those relating to the preservation and use of personal data and profiles.

The provisions of the Directive on unfair terms in consumer contracts, as implemented at the national level, could provide legal recourse against clauses such as those used by MySpace. Among the clauses that are listed in Annex to the Directive as "presumably unfair" are those that have the effect of:

1) "enabling the seller or supplier362 to terminate a contract of indeterminate duration without reasonable notice except where there are serious grounds for doing so";

2) "enabling the seller or supplier to alter the terms of the contract unilaterally without a valid reason which is specified in the contract;"

Since the list of terms appearing in the Annex to the Directive are merely indicative and non-exhaustive, these clauses may or may not have been expressly implemented at national level. It is possible that the Member States apply a more or less strict interpretation of comparable clauses, depending also on the circumstances of each case. It is safe to say however that if a clause pertaining to the unilateral modification of terms or the termination of the contract that causes significant

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[361] HR 21 April 1995, RvdW 1995/98 (Kakkenberg/Kakkenberg).

[362] The terms 'seller or supplier' are defined in article 2c) of Council Directive 93/13/EEC of 5 April 1993 on unfair terms in consumer contracts. OJ L 95, 21 April 1993, p. 29–34] as 'any natural or legal person who, in contracts covered by this Directive, is acting for purposes relating to his trade, business or profession, whether publicly owned or privately owned'.

imbalance in the parties' rights and obligations arising under the contract to the detriment of the consumer, it could be invalidated on the ground of unfairness, for example if it places the burden on the consumer to keep informed of any changes. Apple's terms of use in respect of its iTunes service were deemed unfair pursuant to Nordic law, partly on the ground that Apple unilaterally reserved the right to modify the conditions of use without notifying the user.[363] That unilateral modifications to terms of use can be notified to the user is demonstrated by the conditions of Myvideo:

"Myvideo reserves the right to modify the ToU. Myvideo notifies users in advance of any modifications of the ToU and the offer by means of a message sent to the personal inbox of users. The user has the occasion within 4 weeks of making a note of objection against the modifications in the ToU. If a user does not take advantage of this possibility or as soon as he uses the service again, he is considered to have agreed with these modifications. Myvideo is also entitled to bring modifications to the ToU or other matters to the attention of the user by placing a reference or a link on the website of Myvideo".

In sum, a clause through which the provider reserves the right to modify the terms of use would appear to be generally acceptable if such modifications are duly notified beforehand to the user. The unilateral termination of the contract should be based on a serious motive and be notified to the user before taking effect. Moreover, the agreement should provide that only those clauses that need to remain in effect will survive the termination of the agreement. Modification and termination clauses could be deemed unfair if it caused significant imbalance in the parties' rights and obligations arising under the contract, to the detriment of the consumer.

6.5. Analysis and Conclusions

This chapter aimed at examining the legal issues arising from the contractual relationship between the UCC platform owner and its users. More specifically, we analyzed the contract formation process, including the validity of contracts concluded with minors. Also we considered the validity of clauses containing warranty disclaimers, limitations of liability, a unilateral modification of terms and a termination of the agreement. Most of these questions remain largely unanswered, however. Two reasons can be advanced for this observation: 1) the general principles of contract law and their interpretation have yet to be harmonized across the Member States; and 2) the assessment of the validity of a specific clause is a combined matter of law and fact. A single clause used in a specific factual situation may therefore be acceptable in one Member State but not in another: what is unfair in one country may not necessarily be unfair in another. Nevertheless, the European legislation in the field of consumer protection does provide a solid backbone for keeping contractual provisions in line. For the purposes of the issues treated in this chapter, the Directive on unfair terms in consumer contracts gives the best guarantee against the use of abusive clauses in terms of use.

One issue that remains problematic is whether the terms of use of a UCC platform are binding at all on a minor. The uncertainty may be more acute in some jurisdictions than others and it may affect some terms of use more than others, especially if the terms of use are restrictive or if the contract is presumed formed without explicit consent from the user. The general rule in this matter is that contracts concluded by minors are null and void. However, an exception is sometimes made in certain jurisdictions for contracts concluded in relation to daily matters. It is a question of law and fact whether the acceptance of the terms of use of a UCC platform can be qualified as a daily matter. If the transaction cannot be qualified as a "daily matter", then the minor must be presented by his legal guardian in order to conclude a valid and binding contract. If it can be qualified as a "daily matter", the minor user must, however, intend to manifest his assent to the terms by registering onto a site or by clicking "I Agree" in a dialogue box. If there is no intention to manifest assent to the terms, then there is no binding contract.

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[363] *Apple's iTunes Terms of Service under scrutiny from the Nordic countries*, Consumer Ombudsmen 20-11-06 Henrik Nilsson and Jill Hagberg, see : http://www.twobirds.com/english/publications/articles/iTunes_Terms_Service_scrutiny_Nordic_Consumer_Ombudsmen.cfm

7. Final Analysis and Conclusions

In this chapter, we analyzed some of the legal issues that the application of existing European audiovisual law, e-commerce law, copyright law and data protection law to amateur creators and UCC platforms raises. In particularly, we focused on selected problems of UCC and copyright law, the applicability of audiovisual law to UCC platforms as well as the role of users in audiovisual law, the liability of UCC platforms for user created content, and selected issues in the context of UCC and European contract and data protection law. When analyzing the legal issues at stake, we looked in particular into the question to what extent amateur creators and UCC platforms fit into the framework of existing information law. To inform our analysis, we examined the terms of use of a selected number of UCC platforms. Finally, we studied co- and self-regulatory measures in this field. Based on our analysis we identified a number of challenges to European information law. The problems identified can be roughly distinguished in three clusters of topics: how information law deals with the active user, the legal situation of UCC platforms, and, more principally, challenges to regulation in an UCC environment.

7.1. Information law and the changing role of users

The changing role of users from passive receivers to active and productive participants in information markets raises questions with regard to scope and application of existing information law, particularly where users take over functions that have been traditionally reserved to established, professional suppliers.

Users as broadcasters, publishers and data controllers

Empowered by modern web technologies and new business models, individual amateur users produce their own video shows and "broadcasting" channels, publish personal information as well as news reports on the internet and administer considerable amounts of their personal data and data of their friends. As such, they can contribute considerably to the media landscape and to a richer and more diverse content offer. They can complement or even compete with traditional media offers. Yet, our study found that information law and policies, so far, take little account of the active user or amateur creator of content.

Information law was clearly not written with UCC in mind and a situation in which the division of tasks between "broadcasters", "publishers", "hosts", "data controllers" and users is no longer self-evident. Many rules in current information law operate from the assumption that the roles of traditional, professional suppliers and users as amateurs can be clearly distinguished, and that the production and dissemination of content and the provision of information society services is reserved to professional suppliers. The focus on professional suppliers is particularly evident in broadcasting law. Here, users were for a long time considered passive receivers, and had no other role to play but to "pay attention" to the program. Only recently, audiovisual law has been amended to respond to a more active role of users, namely in the context of on-demand services. Still, the new Audiovisual Media Service Directive assumes that the activities of users are private in nature and of no relevancy in terms of the public audiovisual offer. The provisions of the E-Commerce Directive, too, are specifically and even explicitly aimed at professional providers of information society services. Users who act outside their profession are considered consumers, with the consequence that the obligations of the E-Commerce Directive do not apply to them. Similar is true for the provisions of the European data protection directives. Again, these directives were written with professional suppliers in mind that process personal data of users in the course of their business operations.

As a result, some rules in information law seem ill fitted when applied to active users, others might create un-proportional burdens. Note that unlike (large-scale) professional suppliers, amateur users can lack the scale, organization, permanency, financial resources and knowledge to comply with all the rules that apply to professional suppliers. This is, of course, particularly true for underage-amateurs. Examples of rules that do not seem to fit particularly well the situation of most users are the requirement in the data protection directives to inform authorities about the processing of personal data, or the extensive information duties in the E-Commerce and the Audiovisual Media Service

Directive. Other examples are the provisions on the promotion of European works or the transparency obligations in the Audiovisual Media Service Directive, or the obligations to implement technical and organizational measures to protect personal data.

Having said this, it is often equally unclear if, and to what extent, users can invoke the privileges and rights conferred by information law. Information law is not only about obligations and responsibilities, it is also about privileges and rules that are designed to promote and facilitate the activities of the actors in information markets. The study has demonstrated that, under existing law, there is little legal certainty to what extent users who exercise similar functions as professional actors, e.g. citizen journalists, can also invoke similar privileges. Much depends on whether the respective national laws take an institutional approach to grant privileges to certain professions or employers at professional media companies, or a more functional approach. This can differ from member state to member state. The functional approach is more open to the amateur creator. This approach rather looks at the actual functions performed by the user and would allow anyone who adheres to certain professional principles to also benefit from professional privileges.

One conclusion of this study is that more discussion is needed on the question of a) when, and to what extent users who perform functions that were so far reserved to professional broadcasters, information society service providers or data controller, become broadcasters etc. themselves and b) under which conditions they should fall under the obligations and privileges that apply to professional providers. Relevant considerations in this context can be e.g. public policy considerations (consumer protection, protection of minors, privacy, protection of intellectual property rights, impact on public opinion, freedom of speech, etc.) and competition policy considerations (amateur and professional users competing for the same market, advertisement revenues, etc.). Most importantly, however, rules must (also) reflect the particular situation of amateur users in order to be effective and fair.

As opposed to audiovisual law, e-commerce law and data protection law, copyright law is more "democratic" insofar as it does not distinguish between amateur and professional authors. Amateur creators are in principle entitled to the same level of protection for their creations as professional creators or right holders. Whether they will enjoy, in practive, the same rights depends to a large degree on the contractual settings in relation to UCC platforms. We found that the design of existing terms of use can be very disadvantageous for the amateur creator. The argument that "users have no commercial interests when creating UCC" cannot justified these practices. The situation of amateur users is rendered even more difficult by the fact that the lawfulness of certain types of amateur creations under copyright law is not always clear, particularly with regard to creations that build on existing creations (mash-ups, remixes, and transformative works by users). We moreover demonstrated that the way the licensing of intellectual property rights is presently organized is not particularly amateur-friendly, and that it can be very difficult or even impossible for individual users to obtain the licenses that are necessary to creating legitimate UCC. In this context, we pointed to the potential benefits of alternative licensing schemes, such Creative Commons or industry-led solutions such as YouTube's "AudioSwap".[364]

Policy recommendations: Amateur creators can provide valuable contributions to the existing media offer, and enrich it with artistic creations, critical news analysis, entertainment and discussion. As such, amateur creators deserve full support. This requires also a supportive legal environment. Policy makers should provide for more legal certainty regarding the rules that apply to amateur users. The applicable legal framework mustrespond to the function and capabilities of amateur users. Accordingly, the active user should play a greater role in ongoing policy consultations, such as the implementation of the Audiovisual Media Service Directive into national laws, the review of European consumer law and data protection law as well as the ongoing consultation on copyright law. In particular, it should not lead to overregulation. Insofar, it might be necessary to formulate treshholds or introduce other differentiating criteria. On the other hand, where amateur users perform similar functions and have a similar impact than professional users, policy makers must also consider to what extent reasons of fairness, free competition and protection of the interests of thirds parties or the pubic require treating such amateurs similar than professional suppliers, both with regards to their obligations and privileges.

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[364] AudioSwap enables users to illustrate their original videos with music that YouTube licenses from music publishers and record labels.

Having said this, under certain conditions there is also the need to protect and support amateur users in their relationship to professional suppliers. In particular, there is a need to develop guidelines and best practices regarding the extent to which users should be required by contract to transfer their copyright in favour of UCC platforms. To this end, on-going legislative developments at Member State level that aim at increasing the legal protection of authors in their contractual relations with producers should be closely followed. Also, new solutions that would favour the making of transformative or derivative works might prove necessary and beneficial so that users can build upon existing works. At present, however, there is still considerable uncertainty of how this objective should be best achieved. The on-going consultations on the European Green Paper on Copyright in the Knowledge Economy may provide valuable insight on the issue and may pave the way to a new solution.

"Prosumer" protection, and in particular the protection of minors

The changing role of users can also create new vulnerabilities. To the extent that users participate more actively on the Internet, and step out of the private sphere, they also become more vulnerable. This is particularly true for minors. One of the findings of this study is that existing European data protection law does not sufficiently take into account the situation of minors. Among the areas of uncertainty in existing data protection law are the way in which minors or their parents must be informed about data processing, the validity of a minor's consent in the processing of his personal data and the (duration of) storage of personal data of minors. Another area of potential conflicts that we identified is the validity of terms of use in relation to minors. Again, this is an area that European contract law does not mention. In the laws of the member states, provisions regarding the validity of contracts concluded by minors do exist. However, a first cursory review showed that there seem to be considerable differences between the member states as to the substance and interpretation of these rules. A topic that European law does address is the protection of minors from harmful content. As a result of the recent expansion of the Audiovisual Media Service Directive, rules on the protection of minors from harmful content now also extend to certain online services (namely audiovisual on demand services). For all other services and media, European law and the existing European initiatives rely to a considerable extent on self-and co-regulatory initiatives. Our analysis of self- and co-regulatory measures indicated that a number of initiatives exist that address the protection of minors from harmful content. Much will depend, however, on how effective these measures are in practice. Possible general problems in this context could be the lack of compliance mechanisms, the lack of transparency of the existing solutions, as well as the lack of standardization and a common approach.

Adult users of UCC platforms, too, are exposed to all kinds of "old" and new forms of digital harmful or disturbing behavior. Users are particularly vulnerable when they publish personal data or content online and, in so doing, invite incidents such as identify theft, online stalking, spear phishing, "zombification" of SNS accounts, infiltration, profile squatting, reputation slander, cyber bullying, espionage, social spam, and others. Yet an open question is to what extent national civil and criminal laws are prepared to deal with these issues.

Another question that merits regulatory attention is to what extent users deserve more protection with regard to the commercial exploitation of their personal data and content, for example against personalized, targeted advertising ("behavioural targeting") with or without the knowledge and consent of users. Our analysis suggests that the rights of users in this respect under existing data protection law are limited and should be re-considered. Also, clearer rules regarding the responsibility of UCC platforms when exploiting and sharing personal data of users with third parties for commercial purposes will benefit the situation of users.

Policy recommendations: A major share of users and creators of UCC and participants in social networks are underage users. They deserve particular protection, while taking into account their rights to freedom of expression and privacy. The European legislator should take greater account of the situation of underage users. Two concrete examples of current gaps of protection in European law are the protection of personal data of minors, and the lack of harmonization of rules of contract law regarding the formation and validity of contracts concluded with minors. Policy makers should also clarify that the Council's Recommendation on the Protection of Minors and Human Dignity also applies to UCC platforms, and monitor closely compliance.

More generally, the adequacy of existing data protection law to respond to the needs and expectations of users in a web 2.0 environment should be examined. Issues that deserve particular attention in this context are the obligation to adequately inform users, and how it is being realized in practice, the viability of the present consent model and the question of whether in certain situation opt-in or opt-out solutions might provide for better protection, for example in context with behavioural advertising. Policy makers should also consider clearer rules or duties of care in situations where platforms share personal data with third parties and business associates, or make them otherwise available to third parties (e.g. applications writers). The use of technical solutions and design models (e.g. default settings) might alleviate some of the privacy concerns of users, though more research in the effectiveness and legitimacy of such solutions is needed.

Having said this, threats to users' privacy do not always arise from a UCC platform or SNS site operator, but can also be the result of the way how users deal with personal data of other users. Insofar, it is necessary to clarify the (shared) responsibilities for profile information of users and platforms. Because data protection law was not written with amateur data controllers in mind, more clarity is needed which provisions in the data protection directives apply also to individual data controllers, which obligations would impose unreasonable burdens on them and therefore should not be applied and to what extent UCC platforms are (also) responsible for profile information.

7.2. Information law and user created content platforms

Another cluster of challenges that this study has identified revolves around the role of UCC platforms in the eye of information law. UCC platforms take a central position in the aggregation and dissemination of user created content. Having said this, it is not always clear how UCC platforms fit into existing information law.

UCC platforms as audiovisual media services

The recent expansion of the Audiovisual Media Services Directive has paved the way for treating some UCC platforms as audiovisual media services. The consequence is that some UCC platforms can fall under regulations that were originally designed for the broadcasting sector. Having said this, at present there is little experience yet with applying the rules of the Audiovisual Media Service Directive to the online sector. The same is, of course, true with respect to their application to UCC platforms. This is a question that will need to be addressed by member states when implementing the Audiovisual Media Service Directive. It is important to notice that the situation of UCC platforms is only partly comparable to the situation of broadcasters, with major differences between the platforms as well. Some UCC platforms seem to move into the direction of multi-content portals and platforms for the commercial dissemination of user created as well as professional content. On the other hand, there are also a number of important differences between the business models of traditional audiovisual services and UCC platforms. A major difference between most UCC platforms and conventional audiovisual services is the active role of users. They initiative the production of (UCC) content and decide if and where it is published. Another major difference is that the business model of many UCC platforms depends to a far lesser degree upon editorial control over the content that is disseminated.

Policy recommendations: Policy makers should define clear guidelines or treshholds of when UCC platforms qualify as audiovisual media service, this also with view to the ongoing implementation of the Audiovisual Media Service Directive in member states. Possible criteria in this context could be the number of streams, the amount of professional content, the business model of a platform and to what extent the service (can) exercise editorial control, or the degree of competition with established platforms.

Liability and responsibility for user created content

An important question in the context of UCC platforms is to what extent these platforms can be held responsible for the lawfulness of user created content and the activities of users on their platforms (e.g. that users observe copyright law, data protection law or the rules on harmful content). Information

law has originally developed two different concepts for liability and responsibility for third party content: one is the concept of full liability of publishers for the content that they disseminate. The other is a model of liability exemption for certain technical services (including hosting services). Unlike in the publisher-model, liability for third party content in the hosting-model is the exception, not the rule. Both models stem from different legal environments, and they are the result of different policy considerations. The publisher-model originates in media-law; its primary goal is to protect the public's interest in the quality and lawfulness of media content. The hosting-model relates to telecommunications law, here the seemingless functioning of communications networks, net neutrality, universal carrier obligations and protection of users' privacy and communications secrecy are paramount.[365]

UCC platforms do not fit well into either of the two models. The majority of UCC platforms act in a grey zone between the provision of technical and content-related activities. Their intermediary position gives rise to difficult questions regarding their responsibility for third party content. These questions are part of an ongoing broader discussion of the rights and obligations of information intermediaries, such as ISPs, search engines, EPGs, webfora, etc. More generally, this is a discussion about how to deal with different kinds of information intermediaries: should we a) subject them to full publisher-style prior-publication monitoring obligations, b) to neutrality with regard to the content transmitted, with limited post-publication policing duties or is there c) a need for a new, specifically tailored approach? This study argued in favour of the last option. An important question in this context is whether it makes a difference if UCC platforms actively stimulate users to submit certain kinds of content in order to benefit commercially from such content. Another important question in this context concerns editorial responsibility and responsibility for contributions of users that are not subject to editorial control.

The study concluded that stretching the existing liability exemptions for hosting services to cover all categories of UCC platforms risks undermining the general principles and constitutional values that have led to the development of these rules in the first place. Presumably, an erosion of the existing liability exemptions will not only affect UCC platforms but hosting services in general, including such technical hosting services for which the exemptions were written in the first place. Burdening technical services with publisher-like duties, moreover, seeks to mix two very different regulatory concepts, which can lead to inconsistencies and incompatibilities. Having said this, as our analysis of the applicability of audiovisual law to UCC platforms demonstrated, the publisher model does not fit the situation of many UCC platforms either.

Policy recommendations: The liability for the lawfulness of amateur content and the existing legal uncertainty are considerable risk factors for UCC platforms, and can threaten the viability of certain business models. Clear guidelines are needed of when a UCC platform qualifies as "host" in the sense of Art. 14 of the E-Commerce Directive. Having said this, the existing hosting rules should not be overstretched to cover all kinds of services whose focus is not the provision of predominantly technical services. Instead, a new approach towards the liability of certain information intermediaries for third party content is needed. Such an approach must respond to the respective business model and to what extent it is based on the commercialisation and dissemination of content, to the degree of effective control such an intermediary can reasonably excercise, to the state of supporting technology, as well as to the legitimate interests of third parties in the lawfulness and qualify of content. Possible inspiration could be derived from existing national solutions, in e.g. media law, that already deal with UCC, albeit in traditional media.

As far as Article 14 of the E-Commerce Directive is concerned, clearer formal legal guidance is needed as regards notice-and-take-down procedures, taking in particularly into account a more active role of users in monitoring and reporting unlawful or harmful content but also the rights of content producers (put back procedures). This is an area that should not be left to self-regulation.

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[365] While under the publisher model user anonymity is an established principle, hosting services are often required by law to collect and store identification data. Under the publisher model, service providers are entitled and even required to screen and "censor" user submitted material, hosts are generally expected not to discriminate on the basis of the message of a content.

The relationship between UCC platforms and users

Apart from the responsibility of UCC platforms to respect the rights and legitimate interests of third parties, UCC platforms also have responsibilities and duties of care in relation to users of their platforms. Finding an adequate balance between the interests of UCC platforms and users is important for the production and dissemination of UCC. The extent to which users will be willing to make their creations available to third parties, e.g. via commercial platforms, also depends on the extent to which their rights and legitimate interests in relation to the operator of the platform are respected.

We demonstrated that the existing rules in copyright law, data protection law or e-commerce law also apply, in principle, between UCC platforms and users, and that these rules afford users a certain level of protection. Having said this, the application of existing information law to the relationship between UCC platforms and users is rendered more difficult by the fact that users step out of their traditional role as "consumers", "audience" or mere "data subjects", and that they take over functions that, so far, were reserved to professional players. Accordingly, it is unclear to what extent users who produce and distribute content still qualify as "consumers" in the sense of the E-Commerce Directive. Equally unclear is it often where the responsibility of a platform end, and where the responsibility of individual users begins. An example that this study discussed is a UCC platform's responsibility for personal data that users themselves publish and administer (profile information). The law is unclear on the question of whether in such situations UCC platforms are completely freed from responsibility for the protection of personal data, or if they share responsibilities with users. Vice versa, the law says little about the obligations of users in relation to UCC platforms, e.g. in the context of avoiding and identifying unlawful content on UCC platforms or in the context of the protection of their own personal data.

To the extent that UCC and personal content of users is gaining in commercial importance, guaranteeing a fair balance between the interests of users and platform operators is another important factor to promote a participative Information Society. This study identified a number of areas where the interests of users in relationship to UCC platforms are possibly at stake and should receive further scrutiny (though the list is certainly not exhaustive). One example is the protection of personal data of users. Another example is respect of users' intellectual property rights. Content submitted by users, too, can have commercial value, and also in this respect it is important to guarantee that the interests of users in their relationship with UCC platforms are guaranteed. Yet an open question is to what extent users have an interest or even right to participate in the profits if platforms commercialize user created content. The case studies in the beginning of this report demonstrated that at present UCC platforms handle differing models. Finally, we found gaps in the way how present notice and takedown procedures are regulated, and that there is a lack of legal guidance on design and practice of safeguarding the rights and interests of users as producers and disseminators of content (e.g. so-called put-back procedures).

Many of the conditions under which user created content is being produced and made available is subject to private ordering, in form of contracts between the operators of such platforms and users (so called "terms of use" or "guidelines"). These guidelines specify but also modify the legal obligations of users. Sometimes, the provisions in the terms of use also fill gaps in the existing regulatory framework. Terms of use can specify, for example, to what extent users retain the rights in their creations, to what extent they are liable for unlawful content and whether they can claim remuneration for the case that the operator of the platform makes commercial use of their creations. In this relationship, users usually have the weaker bargaining power. As a result, user guidelines and terms of use can be one-sided, unbalanced and disadvantageous to users. Because each platform uses its own terms of use or guidelines, the relationship between users and UCC platforms differs from platform to platform. For users it can be accordingly very difficult to oversee what their rights and obligations are in relation to the different platforms that they use. Identifying the lawfulness of such contractual modifications alone is a major legal challenge, not only for users. As our analysis demonstrated, users can not always rely on the fact that certain terms of use and/or guidelines of individual platforms are in accordance with the law (e.g. with view to the broad transfer of rights from users to the platform, certain rules on the modification and termination of the terms of use, certain warranty disclaimers and limitations of liability, contracts concluded with minors). Having said this, as our chapter on contract law has demonstrated, the scrutiny of individual contractual provisions has to

be decided on a case-by-case basis and can lead to different results, depending on the law of each member state.

Policy recommendations: To the extent that users take over more active roles in the production and dissemination of content and personal information, also the relationship between users and professional media producers or suppliers is changing. Policy makers should further investigate to what extent these developments call for an adaptation of existing laws, e.g. data protection law, e-commerce law or copyright law. At the same time, further initiatives might be needed to prevent that professional suppliers abuse the inexperience and weaker negotiation position of amateur users.

7.3. Regulating in an UCC environment

A third cluster of issues identified evolves around the question of what the optimal approach is to regulating selected aspects in an UCC environment. Obviously, it is far too early for drawing any general conclusions, and accordingly it was not the task of this study to make any concrete legal proposals. Instead, we concentrated on three more general aspects that should be kept in mind when discussing possible interventions in this field. These aspects concern the possible role of users, of self- and co-regulation and, last but not least, of technological solutions to address some of the legal problems UCC raises.

Users as part of the solution

Considering the active role of users and how technology enables user participation and interaction, it is a legitimate question to ask if and how users could be not only part of the challenges but also of the solutions to legal problems and policy issues in an UCC environment. At present, much of the discussion of how users could actively contribute to e.g. the protection of minors from harmful content, to the fight against illegal and unauthorised content or to the fairness of contractual relationships concentrates on the promotion of media literacy. In its Communication on media literacy,[366] the European Commission explained its goal that users must henceforth not only be able to use modern forms of audiovisual and other electronic services, but must also be able to assess informational content in terms of quality and accuracy, and be able to recognize advertising as such as well as the safety of contents or illegal activities that are harmful to minors. Moreover, future viewers are expected to understand issues as complex as "the economy of the media and the difference between pluralism and media ownership", human rights and copyright law.[367]

Although media literacy is most certainly an important aspect of user empowerment, its potential should be assessed realistically. For example, when publishing information on the Internet, users are suddenly confronted with an entire new set of legal rules and obligations, notably rules in general and civil laws, in copyright law, in audiovisual law, e-commerce law and data protection law. Some notable initiatives seek to explain in plain words individual UCC creators their legal rights and obligations.[368] Many of these initiatives focus on US law, though, and here in particular on the situation of bloggers as citizen journalists. Having said this, many legal issues that UCC raises are even for legal experts difficult to judge. This is also why media literacy can only to a limited extend be expected to address legal conflicts on the internet. It can only work where the legal situation is clear and simple. Moreover, user awareness and media literacy should in general not be an excuse for governments and stakeholders to shift in the future the regulatory burden away from governments and other stakeholders to media literate users.

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[366] European Commission, *Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions, A European approach to media literacy in the digital environment*, Brussels, 20 December 2007, COM(2007) 833 final (European Commission 2007).

[367] European Commission 2007, p. 4-6.

[368] See e.g. DailyBlogTips, *Ten Essential Legal Points for Bloggers*, online available at: http://www.dailyblogtips.com/10-essential-legal-points-for-bloggers/ ; Reporters without Borders, *Handbook for Bloggers and Cyber-Dissidents*, online available at http://www.rsf.org/IMG/pdf/Bloggers_Handbook2.pdf ; Directory Aviva, *Twelf Important US laws every blogger needs to know*; online available at: http://www.avivadirectory.com/blogger-law/ ; Electronic Frontiers Foundation, *Legal Guide for Bloggers*, online available at: http://w2.eff.org/bloggers/lg/ and Creative Commons, *Podcasting Legal Guide: Rules for the Revolution*, online available at http://wiki.creativecommons.org/Podcasting_Legal_Guide , to name but some examples. See also http://www.citmedialaw.org/legal-guide .

Apart from making informed decisions, users can also in other respects contribute to the solution of regulatory problems. One example we discussed is the possible role of users in detecting and reporting unlawful or harmful content. We concluded, however, that the effective participation of users in monitoring unlawful or harmful content demands considerable attention for the way report-abuse and notice-and-take-down procedures are organised. On the one hand, procedures must reflect the need for specific enough information about alleged infringements, while taking into account the lack of expertise and experience in users. On the other hand, procedures must respect the rights of original authors and posters of such content, and avoid large-scale abuse. We found that these are considerations that neither existing law nor most of the existing co- and self-regulatory measures in this field take sufficiently into account. Similar is true for user-executed sanctioning of unlawful or harmful behaviour (e.g. flagging, banishing, internet shaming). The scarce existing research suggests that user executed control and sanctioning could be potentially very powerful, though probably more effective in some areas (child pornography, hate speech) than in others (notably areas that that involve more complex legal analysis such as defamation, violation of IP rights or tax fraud). However, user executed policing also bears considerable risks for individual rights and the public order, including wrongful accusations, disproportionate punishing and lasting damage to a person's reputation, business or profession.[369]

To the extent that users participate more actively in the production and dissemination of media content, they could also play a more active role in the realization of a number of public policy objectives for information markets.[370] Traditionally, information policy relied on professional suppliers to make media content accessible and to generate a diverse offer of content for the benefit of Europe's citizens. In a situation where users themselves create and distribute media content of acceptable quality, they could, and often already do, play a role in enhancing diversity of online content.[371] Moreover, the proliferation of UCC, respectively UCC platforms could generate competition with established players, which again could result in more choice for end-users. Users are also already now active in the selection, rating and peer-review of content, or in making content findable and accessible. Finally, users could also have a role to play in informing other users and in enhancing media literacy.[372]

The role of self- and co-regulation

European law promotes self- and co-regulatory solutions as useful and important alternatives for formal regulation for several of the areas studied here. In this study we focused in particular on two aspects: the protection of minors from harmful content and the organization of effective notice and take down procedures. At the outset, it should be noted that UCC as the basis for a range of new business models is a relatively new and still evolving sector, which may explain to some extent the scarcity of specialized self-regulatory measures. Having said this, an analysis of existing self- and co-regulatory measures in the UCC field resulted in a somewhat ambiguous picture. While the protection of minors from harmful content has been subject to a number of detailed co- and self-regulatory initiatives,[373] notice and takedown procedures were often only addressed, if at all, in very general terms and failed to provide for more detailed procedures, unlike what the E-Commerce Directive envisaged. Also, the majority of self-regulatory measures that we examined lacked adequate compliance mechanisms, which raises questions as to their efficacy. A more general problem that we encountered in the course of our study is the difficulty of actually identifying all the relevant measures. This already points to a fundamental transparency problem. If co- and self-regulatory solutions are to be effective, they must be easily findable and accessible for everyone.

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[369] See e.g. D. J. Solove 2007, p. 76

[370] See early explorations in the potential of UCC for "conventional" challenges in information law, e.g. Y. Benkler, *The Wealth of Networks*, Yale University Press, New Haven, 2006, p. 41 subsbq; D. Mabillot, "User Generated Content: Web 2.0 Taking the Video Sector By Storm, 65 *Communications & Strategies* 2007, p. 39, 46, pp. ; Zarsky 2008, p. 757. J. Kolbitsch and H. Maurer, "The transformation of the Web: How Emerging Communities Shape the Information we Consume", 12 *Journal for Universal Computer Science* 2006, p. 187-213. Also OECD 2007, p. 91.

[371] It is important to realise that the notion of UCC is very broad and covers vacation videos, personal text messages to friends, but also citizen journalism, documentaries on YouTube or amateur music on the channels of Last.fm.

[372] See e.g. DailyBlogTips, *Ten Essential Legal Points for Bloggers*, online available at: http://www.dailyblogtips.com/10-essential-legal-points-for-bloggers/ ; Electronic Frontiers Foundation, *Legal Guide for Bloggers*, online available at: http://w2.eff.org/bloggers/lg/ and Creative Commons, *Podcasting Legal Guide: Rules for the Revolution,* online available at http://wiki.creativecommons.org/Podcasting_Legal_Guide, to name but some examples.

[373] Note that it was beyond the scope of the study to evaluate the suitability and efficacy of these measures in practice.

Another critical issue that we encountered in our analysis of existing co- and self-regulatory measures is the lacking involvement of users. To the extent that users become more actively involved in information markets, their involvement in the making of the rules that govern these markets becomes even more critical. For example, Art. 16 (1) of the E-Commerce calls on Member States and the European Commission to encourage the drawing up of codes of conduct at Community level, and in so doing also include consumer associations or organizations in this process. Having said this, our analysis of co- and self-regulatory initiatives with respect to UCC gives reason to doubt whether users or their representatives were involved to a significant extent in the drawing of the existing codes. Again, the problem of adequate representation of users in law and policy making at the national and European level is part of a larger problem of "better regulation" for the information economy.

Technology and law

Some concluding remarks are also in place about the role of technology. Arguably, many legal problems around UCC point not so much to flaws and lacunae in existing information law or the need for new rules, but rather to difficulties in enforcing existing laws. Obstacles to the effective enforcement of existing law are the massive scale of operations, the fact that much content is submitted anonymously, the global character of the Internet, the lack of central responsibility, etc. Much of these problems are general problems of the Internet, and not easy to solve. Not surprisingly, technical solutions have been suggested for all kinds of problems on the internet (and in context with UCC): technology to make content findable, to prevent access to it, to identify the author or to protect minors and user privacy.

As attractive as technical solutions might seem in the first place, some caveats are in place. Obviously, some legal norms can more easily be translated into machine-readable code than others. Secondly, the automatic identification and removal of allegedly unlawful content cannot replace expert decisions on whether this action was lawful in itself, nor can they replace legal rules that guarantee the legitimacy of technical code. Most importantly, technology needs to respect fundamental rights and other established rights and interests. Finally, with the democratization of media production and dissemination, also the number of users of technological solutions are likely to increase. One challenge for information law is maintaining control over the many different, sometimes incompatible or even conflicting technologies that soon users, UCC platforms, rightholders, parents, etc. will use at a large scale.

Policy recommendations: When considering solutions or adequate policy responses for challenges that UCC poses, policy makers should keep in mind that legal solutions are not always and not necessarily the best possible answers. One aspect that is remarkable about web 2.0 is that it also paves the way for new policy instruments. One example is the more active involvement of users or their representatives in the process of monitoring, enforcing and even making rules. Another example is the integration of active users in the realisation of important public policy goals, such as enhancing diversity, promoting innovation and the free flow of information, raising the level of media literacy, protecting consumers and particularly vulnerable user groups such as minors, etc. Having said this, for users to be part of solutions to legal and policy challenges, some of the traditional professional-supplier-centered rules we described earlier might require rethinking. Obviously, a legal framework that takes into account a potentially more pro-active role of users would need to acknowledge the relevancy of amateur activities also outside the purely private sphere. Moreover, it would need to be, on the one hand, supportive of "active" users, while, on the other hand, achieving a fair balance between the interests of amateur and professional players in information markets.

Useful inspiration could be derived from the way how private parties "pioneer" in areas that are not yet subject to appropriate legal regulation, for example in context with the protection of minors or users' privacy. There exists a range of interesting self- and co-regulatory measures as well as of contractual solutions that merit further study. Eventually, some of the existing co- and self-regulatory measures might even alleviate the need for further regulatory involvement, although such measures should be first closely scrutinized as to their adequacy, balance and effectiveness. Having said this, there is a need for more transparency and effective monitoring of self-regulatory solutions. Formalised notification procedures could be an interesting solution in this context.

Regarding technical solutions, policy makers should formulate rights and procedures of those who are affected by automated decisions, and make sure that technical solutions comply with the fundamental rights of users and third parties before recommending technical solutions. Policy makers should also take care to realize the transparency and lawfulness of such solutions and to actively avoid a "Mad-Max-meets-Matrix"-like situation in which law becomes a matter of the strongest or most persistent technology.

7.4. Some final remarks

Due to time constraints and the breadth of the topic, we had to limit our analysis to a number of selected aspects and fields of law. The democratisation of media production, new collaborative business models and individual media participation raise a range of additional, often fundamental issues that require further research. Examples are:

- The legal and policy implications of the changing role of users for pluralism, cultural diversity and access to information.

- The implications of UCC and social networks for our existing concept of privacy, and users' reasonable expectation in the protection of their private sphere.

- The legal and policy implications of the changing role of users for established definitions such as "broadcaster", "information service provider", "data controller", "consumer", etc., and the way existing information law defines rights and obligations for these groups. Is it possible to define thresholds or other criteria that indicate when amateur users and professional suppliers should be treated alike before the law?

- The implications of UCC for competition within information markets, notably between new and established players, and what is the role of law in this context.

- The regulatory treatment of information intermediaries, and how a new approach for certain information intermediaries, such as UCC platforms, could look like.

- The conditions under which co- and self-regulatory mechanisms can effectively address UCC related problems, and the role of users, respectively their representatives.

- Service personalization and behavioural targeting.

- Comparative research to identify possible needs for more harmonization. And how does the relationship between EC law and the European Convention on Human Rights affect the process of harmonization for rights and obligations that are also subject to fundamental rights?

- The role of technology in the regulation of legal problems related to UCC, as well as the role for governments, lawmakers and standardization bodies in this context.

Note that many of the issues that UCC raises are part of larger problems and ongoing consultations, and should be discussed in this larger context. This is true, for example, of the changing role of users, the extension of traditional media concepts to the Internet, the protection of users as citizens and consumers, the rights and responsibilities of information intermediaries such as ISPs, search engines, Electronic Programme Guides, webfora, the validity of waiver of liability and disclaimer of guarantee or unilateral modification or termination of the contract, the lack of harmonisation of the rules on authorship and ownership of rights on works created by multiple authors or by employees in the course of their employment or the uncertainty regarding the scope of the exclusive rights of reproduction and making available in the digital environment, as well as the protection of personal data and privacy of users online.

PART IV – Final analysis and Recommendations

This chapter synthesises the main findings of the overall analysis conducted on the basis of 50 case studies, of around 55 interviews with stakeholders and of an in-depth desk research. The extensive analysis is presented throughout the rest of the report.

The chapter provides a comprehensive and integrated analysis of the different work packages that were performed by IDATE, IViR and TNO, namely:

- a market analysis, including a classification of User-Created Content categories, an analysis of the available market and usage data and a description of the current business models and value-chains (IDATE)

- an identification of drivers of and obstacles to the development of User-Created Content and an assessment of the economic, social/cultural, technical and legal/policy implications of the developments taking place in the field of UCC (TNO)

- a legal and policy analysis of the EU legal framework affecting the creation and distribution of the different types of user-created content (in particular copyright law, data protection law, contract law, obligations from general and sector specific law regarding content and its presentation, liability exemptions for UCC platforms, existing co- and self-regulatory measures) (IViR)

It examines future developments of UCC services, the obstacles to and drivers of the wide adoption of UCC by European citizens and professional operators, and the implications for the European goal of attaining a participative Information Society.

This chapter also proposes some recommendations for the European Commission and policy makers which could serve to favour the sustainable development of UCC platforms in a safe environment.

In the context of this study, the definition used for UCC is largely based on the definition proposed by the OECD. User-Created Content thus refers to content made publicly available through telecommunication networks, which reflects a certain amount of creative efforts and is created outside of professional routines and practices. The definition used by the European Commission does differ from that of the OECD in the following aspect: it deals not only with content made publicly available on the Internet but also with content made available through any telecommunication network and platform.

1. Final analysis

1.1. Introduction

1.1.1. User-Created Content is not just a fashion, it is a long-term phenomenon

The data gathered in this report gives a clear indication of the extent to which UCC is being created and consumed, despite some remaining uncertainties The interviews with stakeholders and the case studies show that the UCC phenomenon will undoubtedly develop and spread in the future.

Amateur content appears in different forms (in terms of nature and types of content but also in terms of level of professionalism) and can be found on generalist UCC platforms, targeted UCC platforms, social networking sites, traditional media Websites or even on regular media (in TV programmes or in newspapers, for example). In addition, amateur content extends far beyond entertainment and leisure aspects and starts reaching e-government and professional applications (Cf. Part IV, paragraph 1.1.4).

UCC services are part of a more comprehensive trend in which online platforms and tools are used to actively participate in the virtual world. They provide a platform for the ever-present need for self-expression, communication, exchange, and creation of links, either with one's "natural" family or with one's "chosen" family through social networks and communities. UCC platforms give individuals a new platform for creativity and social interaction and extend their reach beyond physical and territorial borders.

If a great part of amateur content which is shared online corresponds to a growing need of being creative and keeping in touch with one's community, another part of amateur content is being developed by authors with more continuous and serious aspirations whose aim is to achieve a reputation. It is in particular this last group that contributes directly to the increase of global knowledge, culture and creation. In other words, depending on the type of UCC, it can have predominantly personal value for those who share it, or can generate value in a broader sense, in the form of monetary profit or cultural, social, or scientific gain.

It is important to note that, so far, the use of UCC has grown massively in a rather short period of time, despite some apparent obstacles, including the apparent lack of viable business models, relative low numbers of creators and lack of quality of the creations, and uncertainty regarding regulation. However, once the initial phase has passed, these obstacles will have be overcome to ensure the sustainable growth of UCC, and to avoid their being an impediment to the further development of this nascent sector. In this framework, policy makers will obviously have a major role to play in creating the conditions for this sustainable growth, in terms of such issues as safe legal environment, technical skills, broadband access and economic certainty.

1.1.2. Rich diversity of content and platforms

From both the interviews and the case studies, it becomes apparent that there is a wide variety of UCC platforms and content available to users.

In terms of nature of content, UCC consists in video, photo, image, drawing, painting, music, audio (other than music), texts, games (such as video games) and virtual objects mainly (but not exclusively). Moreover, UCC is starting to contribute to domains that are beyond personal or entertainment content such as medical information, political issues and development aid (Cf. Part IV, paragraph 1.1.4 and Part IV, paragraph 1.1.6).

In terms of platforms, amateur content is available different kinds of platforms, including:

- Platforms which have developed specific tools designed for easily sharing certain kinds of content (such as photo or video games) and which only play the role of intermediary;

- Platforms which aim at discovering and promoting new talents (whatever the sector, literature or music for example);

- Services which integrate UCC with professional content or with official/formal content (either in the media field – newspaper Websites for example – or on the Website of a company or public service);
- Social networking sites, or knowledge sharing sites (either open to the public or available for a targeted audience such as doctors, for example).

UCC is not only available online, but is also increasingly present on more traditional offline supports (in particular on TV channels).

Diversity is also wide in terms of editorial choices, from the picture illustrating one's profile on a social network to the short film on the "motion maker" programme of a video sharing site; from a post on a forum to a professional blog; from ranking to a full article on a citizen journalism Website. The range of possibilities is large.

For any purpose or interest - however small they might be - a platform or community can be available. This makes for one of the success factors of UCC; it can cater to any interest people might have and provide them with a large – be it only – potential target audience for sharing that interest.

1.1.3. Social and cultural implications of UCC

The rich diversity of content available gives users more choice in terms of the number of sources they consult for their information, thereby increasing diversity. Communities can be set up for any topic, making it easier for people to share their interest with others. Moreover, the accessibility of platforms and tools enables people to be part of multiple communities and take part in multiple interests, thereby enabling them to create their own (digital) identity.

The positive contribution of UCC to a rich diversity will further be spurred by the availability of effective content search tools (and the skills of using them). Equally significant will be the sophisticated solutions that help users to determine the "value" of information (whether it is true, accurate and reliable), particularly where traditional media do not any longer act as filters. In addition, a privacy-sensitive design of UCC platforms and search tools will help users to reap the maximal benefit from UCC.

In a recent study by TNO and DTI[374] to be published in 2009, a number of potential social and cultural impacts of social computing and UCC were identified. First, these technologies have an impact on *online identity production*. Social networks and online communities provide people with the means to express themselves through language, images and media. This opens up new ways of producing and sharing identities. Moreover, due to this online presence and its importance in setting the (online) identity, the *attitude of people towards personal privacy and the perception of privacy* are changing. Depending on the type of media used, such as social networks or blogs, people seem aware of the risk associated with sharing personal information and take themselves appropriate measures to protect their privacy, for example by keeping particular categories of information private (comments, favourite brands, profile photo, political and sexual orientation are considered the least sensitive information categories) (Kool and Frissen, 2008)[375].

The research by Kool and Frissen also shows that users of social networks, in particular, are rather indifferent to the personal information that others publish about them. Another impact is that personal *behaviours, attitudes, values and lifestyles* are increasingly being influenced. Various opportunities for mutual online influencing exist, for example by sharing political views, recommending books, music and movies, and by enabling users to organise themselves around specific interests of political issues. There also seems to be evidence of an impact on *social cohesion*. Social networks enable people to maintain friendships that would be much more difficult to maintain in person (for example, due to geography) and makes it easier to be found by others with similar interests. This impact is even more prevalent in communities with special interests, such as medical communities, which are quite often set up by individuals rather than professionals or institutions and lead to an increase in social cohesion among the people participating. This implies that the communities can contribute to *social inclusion* as well as *social exclusion*, depending on who will profit from these new technologies. This then depends on access to the Internet and the skills and interest of people to participate online. However, groups that might be considered as profiting less from these new developments, such as people in the higher

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[374] TNO (2008) *Social computing and its implications for future public services: WP5 - Key areas of social computing impact in the public service clusters*. report commissioned by IPTS.
[375] Kool. L. and V. Frissen (2008). *Rethinking privacy in online environments*, paper for ITS 2008, in press.

age categories ("silver surfers"), are showing increased participation, while examples exist of communities aimed at other groups that might run the risk of exclusion, such as immigrants[376]. It should be kept in mind that these specialised communities can lead to integration as well as social segregation as it might limit groups to only those that have similar interests[377]. A last identified impact can be felt on the perceived *quality of life* of individuals: people are able to use communities and networks to find online support, for example regarding health or emotional issues. By being able to find information and share experiences online, patients might perceive their quality of life to improve.

1.1.4. E-government and professional applications

As the skills of users increase and UCC platforms enter the next stage of their development, these will be used for more "serious" applications (such as company wikis or exchanging medical information). The sharing of content will then go beyond holiday pictures and funny videos. Organisations (public as well as private) are increasingly starting to integrate UCC into their activities, pointing out growing opportunities for users to contribute "informative" content, as well as the need for users to develop the skills that are required to actively participate in social discussions and use the skills in such professional settings as business. In that sense, having the ability to "play" with UCC in open environments has the added bonus of providing a fertile "learning-by-doing" platform where users help themselves online and share knowledge and skills.

In the private domain, studies and cases illustrate an impact on new, networked forms of organisation, where particularly social software is increasingly being used for knowledge development, cultural interchange and networking between professionals of different organisations and users (TNO, 2008). Studies suggest that there is value in, for example, wikis for enhancing efficiency, effectiveness and quality of service.

An area in which the importance of these skills for participation and its potential impact is starting to become clear is in online communities which provide public value that used to be the domain of public organisations and government agencies (TNO, 2008). Examples are peer counselling, educational communities and health communities. In these examples, users create public value instead of public institutions. In the online community "My language exchange"[378] over one million members from 133 countries learn languages from each other. Moreover, in the healthcare sector there are numerous self-support communities where patients conduct peer counselling of which most communities have been set up by individuals rather than healthcare professionals (TNO, 2008). An effect of the availability of these communities is the availability of information, not only on well-known topics, but also on topics for which there used to be relatively little information (such as rare and uncommon medical disorders). Also users can provide services that traditionally were provided for by government agencies. An example in the social security domain is Zopa, a social lending and borrowing marketplace[379].

Another impact in the public domain is the increase in transparency. Although this might not always be regarded as positive by the institutions that are being made more transparent, it can be regarded as a positive development for users and particular citizens. There are numerous examples of Websites that aim to make healthcare, education and law enforcement more transparent. Examples are sites such as ratemyteacher.com, ratemyprofessors.com, ratemycop.com and ratemydoctor.net on which students, citizens or patients can give their opinion on the performance of teachers, professors, policemen and doctors (TNO, 2008). These types of sites are available in the US and several European countries.

1.1.5. Creativity and innovation

The platforms, communities and tools that are available to users lower the barriers to creation and creativity. To some extent this has led to a democratisation of the creation and creative process where tools are no longer restricted to professionals, for example due to costs or difficulty of use, and any user with access to a computer and the Internet is able to use low cost tools that are available online for creating and sharing content. This process is spurred by access to computers and mobile devices,

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[376] The communities Magreb.nl and Marokko.nl are aimed at immigrants in the Netherlands

[377] Frissen, V, (2008). *De digitale diaspora: de virtuele realiteit van de multiculturele samenleving*, Forum jaarlezing, Utrecht.

[378] www.mylanguageexchange.com

[379] http://uk.zopa.com/zopaweb/

the availability and affordability of broadband Internet and the development of tools that can be used easily by even the most inexperienced users. Not every attempt to create and to be creative will be seen as good, for example by traditional media which are used to professional standards and which may expect the same level of professionalism. All the same, having a significant population which is creative will at least lead to a new set of skills in users (broader than mere UCC) that will also be beneficial in their professional environments. In particular, younger generations have incorporated the use of UCC in their everyday life, thereby creating a generation that will be able to develop these skills quite easily and apply them later in professional contexts. This is important since public and private organisations are testing or already using UCC in their activities and they will increasingly address users/consumers familiar with an UCC environment.

Innovation can be stimulated further as there is a large online audience available for testing new tools and for contributing to improving them. Moreover, this large audience can be used to come up with new innovations, for example by addressing them directly for help, a process known as "crowdsourcing". Having this large group of online users can also mean that innovation takes place that was not expected or purposely sought after. In particular the availability of open source tools has given rise to new sources of innovation and new revenue-models also provide a financial stimulus for "amateurs" to come up with new tools, as seen with the financial models used by such companies such as Apple for distributing and sharing applications for the iPhone.

Similarly, even the use of UCC platforms is becoming more creative thanks to their users. For example, video sharing sites are not only used for sharing holiday videos with one's family or funny videos with one's friends or community but they are also emerging as the new place to be for job seekers. The traditional paper CV is being replaced by the video CV.

Creativity and innovation will thus not only be in the content itself but also in other ways such as how the content can be used for communication purposes.

1.1.6.   UCC and political participation

Through UCC, people can be mobilised quite quickly around specific political issues. Within online communities all kinds of advocacy and issue groups instantly emerge and disappear. UCC can enable new forms of fundraising, candidate exposure and mobilisation, using social networks for networking, video platforms for campaigning and several platforms for fundraising. Moreover, there are early signs that blogs can not only play an important role in providing information on politics[380] but also in providing platforms for public debate and opinion forming.

"Wright (2003) and Bloom (2005) for instance found that blogs have played a major role in the fall of Senator Trent Lott in 2002 in the U.S. Whereas the traditional press ignored a politically sensitive comment of Senator Trent Lott, weblogs made Lott's comment becomes a major story and even caused the resignation of Trent Lott." (TNO, 2008)[381]

Another way in which UCC can influence politics is by means of online community activism (TNO, 2008). Although European evidence on online activism is still lacking, studies in the US show a substantial growth in the use of UCC (particularly by means of social networks) to advocate specific political interests. Examples include giving commentary or analysis, exchanging political commentary, going online for donations and helping defining political debates (particularly by young voters)[382]. The latter provides early clues as to the new ways in which young people can engage in the political process and use new technologies and platforms to renew their interest in politics.

Moreover, politics can become more transparent by means of UCC and the speed at which it can be shared and thereby generating great and acute attention to a political subject or event. Political incidents can be viewed by millions of citizens turning the incident into a considerable phenomenon that impacts the image of politicians or their party. There are many online communities and mashups on which information and politics, policy and political process is collected and made accessible (TNO, 2008). Examples of these communities are OpenCongress[383], providing news related to a bill, vote or

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[380] TNO (2008) *Social computing and its implications for future public services: WP5 - Key areas of social computing impact in the public service clusters*. report commissioned by IPTS.
[381] For further analysis of this particular case see TNO (2008).
[382] Pew Internet Center (2008). The Internet and the 2008 Election. found at
http://www.pewinternet.org/PPF/r/252/report_display.asp
[383] www.opencongress.org

a Member of Congress, and OpenSecrets[384] which provides a searchable database for campaign financing data of all federally elected politicians since 1989.

"Types of social computing seem to erode the traditional political structures. New forms of party financing arise and the political process seems increasingly organised as a grid rather than by committee spokes around a hub … Mashups and crowdsourcing websites enforce the cognitive surplus; the political knowledge of citizens. Herewith, citizens are increasingly empowered to hold politicians accountable for their promises, statements and actions." (TNO, 2008)

1.1.7. Economic implications: commercial UCC services are still in their infancy, with a potential to grow

Broad variety of different business models

UCC platforms – such as the vast majority of Web 2.0 sites – are still experimenting with viable business models, suited to a Web 2.0 audience and not merely replicating existing business models from the offline world.

Monetisation of User-Created Content includes the two following aspects:

- *Direct monetisation*: when the amateur content is directly sold to users such as Lulu or Le Manuscrit, or through sales of by-products using this amateur content, such as happens with tee-shirts on Threadless;

- *Indirect monetisation* through the monetisation of audience to advertisers, which implies to gather both a large enough and qualified enough audience to be attractive to advertisers.

The analysis of the case studies has shown a broad variety of business models, depending on the type of platform, on the nature of the content and on the part played by amateur content and in relation to whether UCC is the core business of the service or only a minor share of it). When UCC is at the heart of the service, then most strategies consist of monetising the content, the audience or the traffic. Currently, a vast number of UCC platforms heavily rely on advertising revenues.

Complementary strategies have also been developed: in particular strategies based on subscription and paying revenues, donation revenues and revenues derived from licensing and e-commerce.

In most cases, business models are built on a combination of several sources of revenues, with widely varying proportions.

Basically, the more generalist a platform, the heavier its dependence on advertising revenues. The more targeted it is, the more it will be able to make the users pay for its service. Talent search services, for example, are more likely to derive direct revenues from their users than generalist video sharing sites.

There is a growing awareness that the real financial value of UCC is often not in the content itself but in the services surrounding the content. Obviously, this also depends on the kind and quality of the content. While semi-professional UCC might be able to attract direct or indirect revenues, other types of personal UCC will not. Here, commercial profitability depends on the added-value of the additional services a platform offers. Consequently, new, innovative business models are needed that develop services around the amateur content itself (such as a legal access to professional content, or extensive storage capacities) and that promote the non-direct economic value of the UCC services in such terms as audience, traffic, amount of content, links and opportunities for fame.

Even if the current business models have not proved to be viable for UCC platforms, the massive success of these platforms among all generations of Internet users is a clear indication that there is a market for this type of content and consequently a profitable future for these platforms. Another interesting clue is given by the major media and Internet companies which have all either developed their own UCC Websites or bought out existing UCC platforms. We may legitimately presume that their close interest for this kind of content and platforms is a sign that they regard these new activities not only as possible competitors but also as new opportunities to develop their business, to keep their audience loyal (or even attract broader audience), and ultimately to generate revenue. If companies such as News Corp invested EUR 484 million in 2005 to acquire Intermix Media (the owner of

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[384] www.opensecrets.org

MySpace) or Google USD 1.65 billion in 2006 to acquire YouTube, it could be taken as an evidence of the economic potential of this sector.

To find the right balance between a target too narrow, or too broad

Popular UCC services could be the first victim of their own success: on the one hand, the more popular they are, the more costly they become in terms of storage capacities and delivery networks; on the other hand, the more users they have, the less homogeneous the community is. It could then become less attractive for advertisers as well as for the members of the community themselves, who will no longer show the same interest in a too broad community.

The opposite holds too: those UCC services which are more focused on a targeted audience attract a very homogeneous and coherent audience – which could be valuable for advertisers – but risk not having enough users to build a sound business model. Having said this, it seems that a broad audience is not a guarantee of higher advertising revenues. Estimates of YouTube turnover are between USD 100 million and 200 million for 2008, whereas that of Hulu should reach USD 100 million for the same year with a far lower audience (and far lower costs of bandwidth).

To provide mobile versions of fixed services

This is not specific to UCC services but it is also part of the global evolution of the Web 2.0. People are now familiar with accessing the "fixed" Internet and they intend to benefit from the same services also in mobility. Already, producers of mobile phones are advertising their devices with the argument that users can upload text, pictures or videos directly on blogs and social networks.

Though fixed broadband has been a major driver of UCC and services and platforms are set up with that in mind, particularly mobile broadband is regarded as a major driver in the future by most stakeholders interviewed for this study. Besides the advantage that mobile broadband provides users with access to platforms on the road, it may also provide a good alternative in areas where fixed broadband is not available. This emphasises the need for platforms and services to be accessible through mobile broadband, taking into account the specifics of hardware used for this access, namely mobile phones. To benefit from the potential that mobile platforms offer, UCC platforms and services would need to adapt their services accordingly: make tools available, notably software, that are suitable for use on these mobile devices, and cater to the need of user for large download and, even more importantly, high upload capacity. Subscription contracts and pricing schemes should take into account the heavier use that comes with UCC, in form of either lower data charges or flat rate subscriptions.

1.1.8. Implications of UCC on related industries

Cooperation with professional industries

The role of professional content, released by such content providers as broadcasters, is growing on platforms which previously focused almost exclusively on amateur content, created outside of the professional routines and practices.

Some UCC platforms are now dealing with official companies, for example in form of licensing deals, so as to get access to some professional content. For the platforms, it is a way to legally provide their users with attractive high quality content, and to alleviate concerns of rightholders about the unauthorised distribution of their content. The ability of some generalist UCC platforms to conclude agreements with major media companies might also reassure some advertisers who prefer to place theirs ads alongside professional content.

These agreements between media companies and UCC platforms are also a clear indication that UCC platforms have become in few years key players in the field of content distribution. The main video sharing sites, for example, are managing to attract a broader audience than any TV channel, and Internet users do watch more videos on UCC platforms than on TV channel Websites.

UCC platforms are now seen by established media as key partners to better expose their content online, to value their inventory and to generate extra revenues, provided they implement efficient tools to prevent unauthorised distribution.

Integrating UCC into the offers of professional media

Aside from the interest of professional media companies in displaying their content on these new platforms, they are also increasingly integrating amateur content into their own traditional activities. For them, it is a way to reinforce the links they have with their own users and consequently a way of keeping them loyal to their brands. The Websites of nearly all media companies now provide space for their users to comment, give their views, inform other users and share their own creations. It allows media companies to develop a community based on their own brands and value.

Amateur content is not only available on Websites alone, having also found its place on regular TV shows or on the pages of newspapers. The creators take advantage of the opportunity to be viewed widely on an official media to get their "15 minutes of fame".

Even some advertisers ask amateurs to contribute to their future ad campaign and organise contests on UCC platforms so that amateurs develop video clips or posters to promote a brand, a product or a service. Advertisers are beginning to consider such opportunities as an interesting way to let users engage actively with their brand, whereas consumers, especially younger audiences, tend to increasingly reject traditional ways of advertising.

Beyond the effective use of amateur content by established media and advertisers, these companies are also developing UCC-like products or contents. Some advertising campaigns are based on short clips which look like amateur videos but which have been produced by professional advertisers.

In a similar vein, UCC has also started to adopt traditional media for reaching out beyond the Internet. For example, in France, a newspaper – called "*Vendredi"* – has been launched in October 2008 whose concept is to publish weekly news available on the Internet, based on more than 400 sources, including blogs and citizen journalism Websites. Another example is the CurrentTV satellite network which specialises in airing User-Created Content through traditional broadcasting infrastructures.

Cooperation with network providers and device manufacturers

Without adapted broadband networks and creation tools, the huge success of UCC platforms would not have been possible. According to most interviewees, the availability and affordability of broadband access and of devices are key to the further development of both creation and distribution of UCC.

Here, the rapid spread of amateur content can also be considered as a new opportunity for network providers and for manufacturers to develop. Demand for extended symmetric broadband capacities will increase in the near future, whilst the sale of easy-to-use devices and software will develop as usage patterns pervade all the categories of the population.

From the perspective of network providers and manufacturers , they can only benefit from the success of UCC platforms and the extended possibilities they offer for users to express themselves and share their own creations widely.

1.2. UCC, from the user side

1.2.1. A global and widespread phenomenon

All categories of people are now UCC consumers and/or creators

A new generation of citizens is growing up with UCC, and the under-age users of UCC platforms and social networks today are the citizens of the Information Society tomorrow as future digital-literate employees, as potential professionals in media industries and as paying customers. Their current usage of UCC platforms is allowing them to develop technical and legal skills. Their training today is all the more important since it will enable them further to put their digital capacities into practice in their professional, social and civic environments. That said, even if UCC consumers/creators are mainly young people and more are men than women, the gap between young and elderly people, on the one hand, and men and women, on the other hand, is progressively narrowing. There are studies pointing to the rise of the "silver surfers", people in higher age categories who have also found their way in ever-growing numbers to the Internet and UCC. In particular, the Mediascope Europe survey shows an increasing involvement of women and the elderly in Internet use, year after year. Thus the number of women online increased by 8% between 2006 and 2007, whereas the "silver Surfers" have been experiencing a boost of 12% year-on-year.

As indicated above, the wide variety of amateur content and UCC platforms makes it possible to find services suited to the needs and wishes of each category of people, whatever their age or their origin.

Drivers: why do people engage in UCC?

Although technology is mentioned most frequently as the driver of UCC, it is the need for self-expression, creative, cultural or political engagement and social interaction which drives people to engage in UCC. It has always been present, but now the available technologies such as access to high speed broadband, online easy-to-use tools and the availability of a wide variety of platforms have fostered this need and provide a platform for users to extend their reach beyond the boundaries of what was possible before. It is the large potential target audience that makes people even more eager to engage in UCC as they can share their interests, ideas and creation more widely.

Having lowered the barriers for entry to the digital content market, UCC platforms now also present a new opportunity for those people with professional ambitions to release their content to a large range of potential customers or fans.

Generating revenue is probably not the main driver for people engaged in UCC. In fact, one major driver is that they elaborate and share content so as to create and reinforce links within a community, whether it be around family, friends, professional needs or a shared interest. For this, they do not expect revenue. Another key driver is the upload of content with the goal of being famous. Here, UCC platforms are simply the online equivalent of sending a manuscript to a publisher, or a music tape to an editor. In this case, creators could, of course, be interested in some form of immediate remuneration, but it seems that they consider UCC platforms mainly as a stepping stone on the path to fame. If creators of such content do indeed expect some direct online revenues, then according to the interviewees, it is these people who usually aim at being broadcast or distributed through the traditional offline media. Already, in the same vein, it is also the case that various platforms, notably those specialising in talent and content scouting, are experimenting with forms of revenue sharing, in order to engage and stimulate amateur creators.

The UCC phenomenon has reached the entire world

UCC services are now widely used throughout the world, provided simply that people have access to a PC and to a high speed Internet connection, both in terms of network availability and of affordability of access.

As a proportion of total population, in general the volume of users of UCC services (particularly in terms of quantity) is far more developed in countries which have already attained a high level of broadband penetration. However, there are examples of Eastern European countries where the level of broadband penetration and thereby the number of UCC users is low, but where the few people with access to UCC platforms are very actively engaged in UCC. Such is the case in Romania in particular; it is the European country with the highest proportion of active Internet users engaged in watching videos on the Web, in uploading videos and in podcasting. In the Czech Republic and Poland, active Internet users are also well-engaged, in uploading photos and in subscribing to RSS feeds, respectively. In terms of the proportion of total active Internet users, these countries with low broadband penetration show no significant difference in patterns of UCC usage to those in countries with high broadband penetration. This indicates that the potential for UCC in these countries is very high and thus achieving higher access to broadband and UCC platforms can have great rewards.

The key point is the access to the Internet – and preferably to a broadband access.

44 million amateur creators, and the potential for more

Despite the obvious success of some UCC services, the fact is that the number of active members actually contributing to the content creation process is very low in comparison with the number of content consumers. However, when looking at absolute figures, three percent of the total Internet population (Cf. the diagram below) still amounts to some 44 million creators.

Figure 103: Typology of Internet users by degree of participation

Inactive: 56%

Reader only: 16%

Occasional participant: 15%

Regular participant: 4%

Occasional creator: 6%

Active creator: 3%
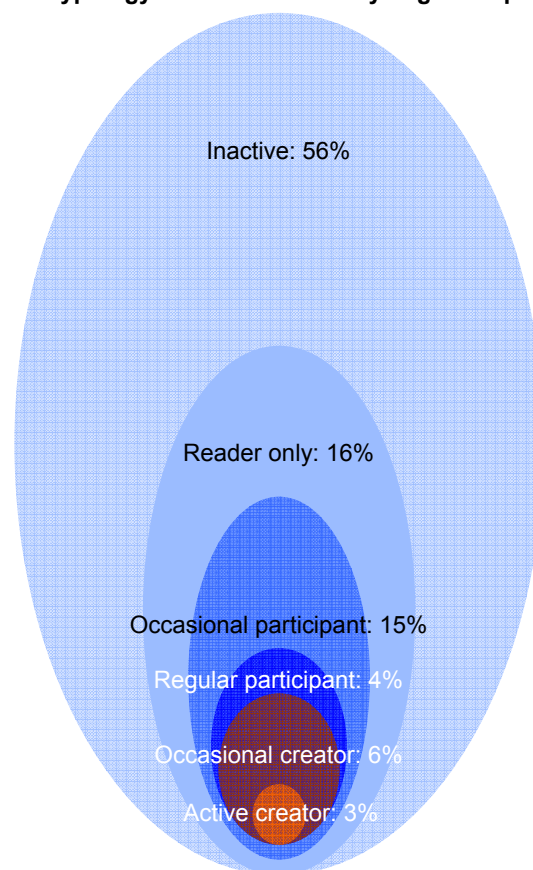
Source: IDATE, Use-IT 2007 survey

1.2.2. Access issues are crucial to massive adoption of UCC services

The promotion of UCC raises several issues:

1. The roll-out of always-on, fixed and/or mobile broadband Internet access with high upload capacity;

2. The availability of devices to access UCC services (PC, mobile phones in particular);

3. The availability and development of devices to create and upload content (in particular digital devices such as cameras), also in terms of quality of the devices (including HD capabilities), affordability and portability;

4. The development of sophisticated, but easy-to-use software, preferably online (SaaS);

5. Interoperability of devices, middleware and applications;

6. The usability and ergonomics of both user interfaces and devices;

7. The availability of (semi-)automated search and filter mechanisms;

8. The costs of Internet access and of devices;

9. Awareness building and training of all people, and in particular of people who are unfamiliar with the digital environment;

10. Legal certainties in particular regarding privacy issues.

This means that for promoting the widespread adoption of UCC services throughout the EC Member States, and favouring the development of creative content generated by users, the European Commission should strive for always-on broadband access at reasonable costs (flat-rate fees); affordable equipment to create, share and view content; interoperable and user-friendly devices and services; appropriate training; and the protection of citizens' privacy.

1.2.3. Pay specific attention to upload capacities

Until recently, Web activities mostly involved the consumption of content rather than its creation and upload. The asymmetric properties of the main technologies available in Europe were well-suited to this former kind of usage. However, the recent development of UCC services, the growing role played by Internet users and the availability of semi-professional devices generating heavy files, all make it necessary to upgrade upload capacities and provide users with the means to share high-quality (large) creations. Countries such as Japan which have widely deployed FTTx networks will not experience the same constraints due to the symmetric nature of the network technologies used. In terms of competitiveness, the use of asymmetric network technologies as the dominant means of broadband access in Europe might prove to be a competitive disadvantage.

One should keep in mind that factors such as upload speed should not be considered on their own. One of the frequently-mentioned obstacles during the interviews was the lack of quality in the creations. Although this also involves professional, creative and artistic competencies, the quality of the content is also determined by the capabilities of the equipment used, including the resolution of camera phones and the limitations faced by uploading high quality content such as HD video. Moreover, if users are able to upload more and larger content, this will affect the use of the infrastructure (can networks cope with such an increase in traffic?), the costs of using the networks (data traffic will have to be paid for) and the need for increasing storage capacity at platforms.

1.2.4. Creating a safe UCC experience

The success of UCC does provide for some challenges in terms of protecting users. Engaging in UCC involves information being shared by users in an open environment. This information not only refers to the creations of people but also to the information which they share about themselves. This includes information that has to be shared for gaining access to platforms and services and personal information that users share by using the platforms, such as real names, place of residence and date of birth. This implies that there are at least two kinds of threats involved: the possible abuse of the information that is required when signing up for services of platforms and for which it might be unclear on how it can be or actually is used by the platform or service, and the possible abuse of the

information that users make available voluntarily and which might be used by third parties. Both threats are real as technological developments are making it possible to easily collect, store and analyse data. Some groups of users such as minors might not be fully aware of the risks that are associated with engaging in UCC, or they may be aware but choose to accept the risks. Either way, policymakers should be aware of these factors and consider ways to minimise risks.

Users are also exposed to certain legal risks. Moving their activities from a strictly private sphere to the public forum which is the Internet exposes amateur users to a range of additional legal obligations, and the possibility of being in breach of such obligations, of which they may not be aware of in the first place (see also Part IV, paragraph 1.2.8). Creating a safe UCC experience means, for example, that users should be able to create content without fear of copyright infringement suits. According to existing rules on copyright, it is unclear to what extent users are entitled to use existing works when making new ones. Since European copyright law contains no specifically-tailored exception allowing transformative uses, any use of another person's work would require obtaining the author's prior permission. Clearing copyrights often poses a challenge to professional content makers, let alone to amateurs. In the case of films, tracking all rights owners to obtain permission is a daunting task. In the case of music, rights are often exercised by collective rights management societies that, as a matter of policy, do not grant licences to private individuals.

A safe UCC experience also entails that users should not be confronted with restrictive contractual practices on a UCC platform. Although this practice is not widespread among UCC platforms, it is not uncommon for a platform to demand, as a condition in its terms of use, that the user transfer all his rights on original content. In some Member States, such a clause would be invalid. However, since copyright contract law is not harmonised at the European level, makers of original content are not protected equally throughout the Union. Speaking of terms of use, uncertainty also arises regarding the validity of standard form contracts concluded with minors.

Existing legislation, both national and European, does address some of the issues that might threaten the safety of UCC. These include existing rules on privacy protection and the protection of minors, as well as national rules on cyber crime. However, these rules were often not written with new developments such as UCC in mind, and are therefore not always equally well-prepared for addressing new threats and security risks. One example is that of the current European regulation on data protection that, for the time being, focuses on the processing of personal data as an incidental activity, rather than as the basis for an entire business model of UCC platforms.

These limitations are tangible indeed, but the need for a safe UCC experience can also create new (business) opportunities. Providing a safe UCC experience can be a distinguishing factor in competition between UCC platforms and provide the value added that users are willing to pay for, thereby helping in building the so sought after viable business model. For example, parents might be willing to pay for access to safe environments for their children, knowing they will be active online anyway. Equally, the proliferation of alternative licensing systems, such as Creative Commons, could benefit from the enhanced need for legal certainty in the online environment.

1.2.5.   Stimulating the ambitious amateur

While some users see UCC primarily as a means to communicate and to express themselves in relation to friends and connections, others perceive the UCC phenomenon as an opportunity and stepping stone for more professional activities. These users can potentially add much value to the (amateur and professional) digital content offering, and hence deserve support and stimulation. Encouraging and stimulating these users can occur, and already does so, by means, for example, of revenue sharing models. Talent search services are particularly active in the development of revenue sharing models. Two main models co-exist. In the first, the service collects revenue from, for example, advertising and then remunerates the creators depending on the success of his/her creation. This can be through a fixed rate as with OhMyNews, or a percentage of the total revenue generated thanks to the content, a practice exemplified by SeeMeeTV or Kongregate. The second model, as with Lulu and others, is where the service takes a commission on amateur content sold through its platform.

It is also in the interest of such platforms to stimulate the ambitious amateurs since their audience and their business model rely mainly on their contents. So without qualitative, sellable content, there would be no economy for such services.

It is important to note that the contractual conditions between UCC platforms and amateurs do not always do justice to the ambitions of the latter. Examples are contractual clauses that require amateurs to sign away exploitation rights without receiving and control over the way their contributions

are commercially exploited and without sharing in potential economic profits. There is a need for closer scrutiny of the contracts between professional parties and amateur creators, notably upon their compatibility with copyright law, author's contract law and general contract law.

Stimulating the ambitious creator also requires the right legal setting with rules that enable and promote active users instead of restricting them. In this context, the ongoing consultation on the European Commission Green Paper on Copyright for the Knowledge Economy regarding, inter alia, the question of whether there is a need for a UCC exception and the contours that it could take is of great importance and will pave the way for new solutions. More clarity is also needed about the extent to which amateur creators are subject to legal obligations in the area of media law. Amateur creators will often have not the capacity, resources and knowledge to answer to the same rules that apply to professional creators and disseminators of digital content (see more in detail below); the risk of over-regulation is eminent. On the other hand, where amateur creators perform functions that are similarly important to and beneficial for society, they should also be entitled to the same privileges. An example could be serious citizen journalists who adhere to professional standards of journalism. At present, at least in some countries, citizen journalists are excluded from enjoying journalistic privileges, whereas in other Member States the legal situation might be more open to amateur journalists.

1.2.6. The need for improved quality of amateur content

A widely-made comment in the interviews is that a large part of content uploaded (but it should be noted that there is no data to estimate the proportion) is not original content. Instead, it is a copy of someone else's content without sufficient editing to make it something new. A concomitant comment is that the quality of most created content is rather poor. It must be emphasised that this analysis is made by professionals working mainly in media or telecom industries, who are used to high professional standards and whose expectations regarding quality standards are obviously very specific. In reality, the assessment of UCC quality is relative and very much depends on type of content, its purpose and audience. Clearly, the technical, artistic, creative and innovative expectations regarding amateur content could not be the same for holiday pictures shared with friends and family, for a music band looking for fame or for citizen journalists analysing hot topics.

The fact that some uploaded content is not original touches upon legal questions about the rights to use third-party contents. The alleged low quality of content refers to both the technical quality (for example, low quality video) and the professional, artistic or creative quality. The issue of technical quality has been discussed elsewhere and involves equipment capacities, upload capacity and such limitations of a platforms as the constraints in the maximum size of files stored on it.

The argument put forward in the interviews, that the professional, artistic or creative quality of content is of low quality, is of course also driven by the desire to have content that has value added and thereby creates commercial opportunities, because individuals or companies are willing to pay for access to this content. It is for this reason that such platforms as YouTube or DailyMotion implemented specific programmes targeting talented creators so as to favour the development of quality content. According to DailyMotion, the Motion Maker programme registered some 13,000 creators in November 2008, namely 1% of its total base of registered members.

Content being of low quality, as such, does not have to be a problem, something already implied in the clear growth of UCC despite its lack in quality. When sharing holiday pictures with family, quality will be less of a concern to those involved. For sure, the lack of quality identified by interviewees is only an issue if UCC users expect to get the same quality standards (in terms of technical, artistic or professional terms) as the one they are used to in traditional media. Yet Internet users do look on UCC platforms for content which they will not find elsewhere and they are, accordingly, likely to adjust their expectations too.

It becomes an issue when the quality of the created content determines its usability. In citizen journalism, the argument is a really rather valid one − not only because good journalism is necessary for news sources to incorporate it in their service offering without suffering any damage to their brand, but also due to the risks involved in bad journalism. For example, when not applying principles of good journalism to reporting, such as "listening to both sides", damage might be done to organisations or people that are included in the reporting.

To the extent that normative quality safeguards, such as press codes or rules on the protection of minors or hate speech, and such self-regulatory quality safeguards as journalistic standards, exist, it is at present not entirely clear whether these also apply to the amateur creator. Much will depend on

whether judges and regulators take an institutional approach, relating only to professional media or their employees or a functional one, referring to any person or body who performs a certain function.

There are also other policy reasons to strive for better quality in content. An example is the goal to further develop the skills of users and the sophistication of UCC use in regions. It can be regarded as a competitive advantage, having a large Internet population whose levels of use of the Internet rise above those in other countries and thereby provide a fertile basis for a creative industry. Moreover, the skills involved in making good quality content might be skills that are useful in other areas as well.

1.2.7. Privacy issues

Some interviewees pinpointed the apparent contradiction between what Internet users fear and what they are effectively doing. Paradoxically, users value their privacy highly but, at the same time, they do not hesitate to make very personal and even sensitive information publicly available on the Internet. This is probably mainly due to people being either not aware of how their personal data, whether actively or passively created, could be used now or in the future by the platform or by other users, or being aware of, yet accepting, the risk.

Privacy guidelines, even if available on the Websites, are not always clear for Internet users. Stakeholders highlighted the fact that most users do not read the terms of conditions of a platform before signing in or do not understand all their possible implications. Some platforms, especially in the United Kingdom, are trying to invent new forms of privacy guidelines, which are shorter and clearer and that users have to accept before accessing the service.

European data protection law provides little pro-active protection against certain forms of exploitation of personal data, such as behavioural advertising, data mining or making personal data available to business associates, as long as the user has been informed in advance about these forms of exploitation. Accordingly, one may wonder whether there are situations in which the consent-based structure of existing European data protection law affords too little protection to users, especially in context with social networks. A clear gap exists in European data protection law regarding the protection of personal data of minors; until now, there have been no specific rules that would take into account the particular needs and vulnerabilities of minors.

1.2.8. Users as producers and the law

Active users are confronted with an entire different set of legal rules and obligations, notably rules in general and civil laws, in the case of copyright law, audiovisual law, e-commerce law and data protection law. It is unclear, but unlikely that the majority of users is aware of this fact. Presumably, UCC as a phenomenon has flourished despite or maybe even because of a lack of legal awareness. Much will also depend on the motivation of amateur creators. Bloggers, for example, in general show greater interest in, and awareness of, legal issues than participants in a social network site, as the number of blogs and contributions regarding legal issues for bloggers demonstrate.

There are some notable initiatives that seek to explain to individual UCC creators their legal rights and obligations[385] in straightforward, plain words. Some such initiatives are user-driven, while others result from professional bodies in the media sector, such as Reporters Without Borders. Many of these initiatives focus, however, on US law and in particular on the position of bloggers as citizen journalists. Having said this, many of the legal issues that UCC raises are difficult to judge even for legal experts, leaving many questions still unresolved. This can be explained in part by the fact that many rules in current information law derive from the established traditional assumption that the roles of traditional, professional suppliers and users as amateurs can be clearly distinguished, and that the production and dissemination of content and the provision of Information Society services is reserved to professional suppliers. Accordingly, some rules in information law seem ill-fitted when applied to active

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385 See, for example, DailyBlogTips, Ten Essential Legal Points for Bloggers, available online at: http://www.dailyblogtips.com/10-essential-legal-points-for-bloggers/; Reporters Without Borders, Handbook for Bloggers and Cyber-Dissidents, available online at http://www.rsf.org/IMG/pdf/Bloggers_Handbook2.pdf; Directory Aviva, Twelve Important US Laws Every Blogger Needs To Know; available online at: http://www.avivadirectory.com/blogger-law/; Electronic Frontiers Foundation, Legal Guide for Bloggers, available online at: http://w2.eff.org/bloggers/lg/ and Creative Commons, Podcasting Legal Guide: Rules for the Revolution, available online at http://wiki.creativecommons.org/Podcasting_Legal_Guide , to name but a few examples. See also http://www.citmedialaw.org/legal-guide.

users, others might create disproportionate burdens. Note that unlike (large-scale) professional suppliers, amateur users can lack the scale, organisation, permanency, financial resources and knowledge to comply with all the rules that apply to professional suppliers.

In the light of these considerations it is also obvious that media literacy can only to a limited extent be expected to solve legal problems on the Internet. Moreover, user awareness and media literacy should in general not be an excuse for governments and stakeholders in the future to shift the regulatory burden away from governments and other stakeholders to media literate users. Policy makers need to decide to what extent and under which conditions amateur creators should fall under the same rules as professional media creators and suppliers, where this would impose unreasonable and potentially chilling burdens for users and, finally, where a modified approach might be needed.

1.2.9. A more active role for users in reviewing, monitoring, sanctioning and rule-making?

It is thanks to Web 2.0 technologies that users can participate not only more actively in the creation and dissemination of digital content, but they can, and already do, contribute actively to solving some legal and quality issues with UCC, within the limits of what can be reasonably and legitimately expected from them.

One example is the monitoring of content for unlawful or harmful contributions. Content monitoring can take place *a priori* or *a posteriori*. Even if the *a priori* approach might be the most effective way to guarantee that content fully complies with legal provisions and the terms of conditions of the platform, it proves to be unrealistic in situations where large quantities of content are being uploaded by a variety of different, often anonymous users. This is why an *a posteriori* approach is often more viable. In the context of an *a posteriori* approach, UCC platforms can involve users by encouraging them to report unlawful or harmful content. However, the effective participation of users in monitoring unlawful or harmful content demands considerable attention to the way report-abuse, notice and take-down procedures are organised. Procedures must reflect the need for information to be specific enough about alleged infringements, while taking into account the lack of expertise and experience of users. Procedures must also respect the rights of original authors and posters of such content, and avoid large-scale abuse, and implement appropriate safeguards. This is also and particularly true for user-executed sanctioning, such as naming and shaming which can lead to abuse, false accusations and irreparable reputational damages. Finally, there are, of course, limits to an active user involvement, due to the lack of consistency, legal knowledge and the protection of fundamental rights, such as freedom of expression and privacy.

Other examples of active user involvement are the user-driven initiatives mentioned above in informing and educating other users on, for example, legal or technical issues at hand. User-driven peer review models such as those applied in Wikipedia form another important area where users can actively contribute to raising the level of quality, accuracy and legitimacy of UCC. Finally, an example of active user involvement in rule-making is the Blogger's Code of Conduct which seeks, in the form of a wiki, to reach a consensus on journalistic standards for bloggers.

1.3. UCC, seen from the platforms

1.3.1. Demand for more efficient technical solutions (for storage and content delivery)

Currently, the more successful a service is, the more costly it is for its owners, in terms of storage capacities and of content delivery networks.

UCC platforms always face increasing costs due to the growth of the total number of uploaded files and of viewership, but also due to the growth of the size of the files (in particular photos).

The situation will trigger the demand for more sophisticated, cost-effective solutions that keep the technical costs as low as possible without having to downgrade the quality of their service.

1.3.2. Mobile is seen as a future key driver of UCC services

The UCC services as we know them on the fixed Internet are only a first step in the development of the UCC phenomenon. According to stakeholders, the next step, the mobile UCC, is expected to be at least as impressive, or even more so, as the first one. There is a mobility dimension to much of the UCC that is being created; pictures taken and videos shot at locations other than the home, being able to report on events when they occur and being able to use devices that users most easily and most often have access to (even at home) such as the mobile phone. Moreover, mobile networks can provide for access when fixed networks are not available, for example in areas where fixed networks are difficult to provide.

The further evolution of this trend will obviously depend directly on the roll-out of 3G networks, on the availability of (low) flat-rate tariffs, on the availability of user-friendly, affordable, 3G mobile phones with photo and video cameras and extensive storage capacities. If these prerequisites are fulfilled, there will be attractive opportunities for users to access mobile UCC services so as to extend and further develop their fixed experience. The mobile phone is designed to be the key element of the development of UCC services since it gathers in one device all the necessary functionalities to create, store, send and view content.

In order to benefit from this future market, UCC service providers are well-advised to develop mobile versions of their traditional fix platforms and to provide for interoperability between fixed and mobile platforms so that users will have a seamless experience.

1.3.3. Where users are overwhelmed by content profusion, tools to help find the right content easily will be decisive

The direct consequence of the development of amateur content is the availability of huge amounts of content and the difficulty of finding the right information, as well as the corollary difficulty of it being found.

Until recently, in the offline world, users were used to quite a limited choice of guiding tools. In the TV world, TV channels are supposed to know what TV viewers want to see according to the time of day, and the viewers only have the choice between several channels. In a newspaper, journalists select the information which will be of interest for its readers. Traditional media are based on a push model. In the online world, it is up to the user to know what s/he is looking for and where to find what s/he wants – a pull model.

The major issue here is that, because of ever-increasing content and the lack of the traditional filter function of the media, users are finding it harder to locate interesting or relevant UCC.

The availability of (semi-automated) search and filter mechanisms which could help users to easily locate and access what they are looking for and/or to identify what could be of interest for them could be a positive driver for the massive adoption of UCC services.

Obviously, such solutions would need to take user privacy into account. Effective recommendation systems often depend on the availability of large-scale databases of individual user behaviour. The creation and exploitation of such databases can conflict with user privacy and data protection interests

and open the doors for abuse. In addition, from the competition point of view rooted in proprietary issues, control over individual user behaviour data collections on a large scale can create competition concerns. Finally, freedom of expression concerns need to be taken into account.

It will be in the interest of service providers to develop adequate and privacy-sensitive tools. These could turn out to be decisive in enhancing customer loyalty, but also in giving value to niche products. Consequently, privacy-sensitive search engines or peer-based recommendation mechanisms could have a positive impact on the overall development of the market and could more specifically be a differentiation tool for some providers.

1.3.4. UCC services: after fast fame, large communities and massive content, can they now be monetised?

The nature of business models for UCC platforms is still unclear, as indeed they are for the entire Web 2.0). The cost side is obvious – in particular, the technical costs linked to storage capacities and bandwidth – but revenue generation is more a "trial and error" approach. Until now, UCC platforms have mainly implemented business models copied from the traditional media sectors. Monetisation of videos is particularly sensitive in the sense that technical costs are considerably higher for videos than for any other content (video files are particularly heavy) and they do not generate higher revenue even so. An estimate for the average cost per thousand (CPM[386]) for pre-roll video ads[387] is between USD 5 and USD 10 (but it will largely vary depending on the origin of the content: UCC or professional), whereas the distribution costs (for delivering videos to 1,000 users) amount between USD 30 and USD 40. Supposing that each single video is financed by one pre-roll video ad, it implies that the CPM should be multiplied by 4 to 6 to make the service sustainable. Innovative forms of monetisation and advertising will have to be developed to better fit the Web 2.0 environment.
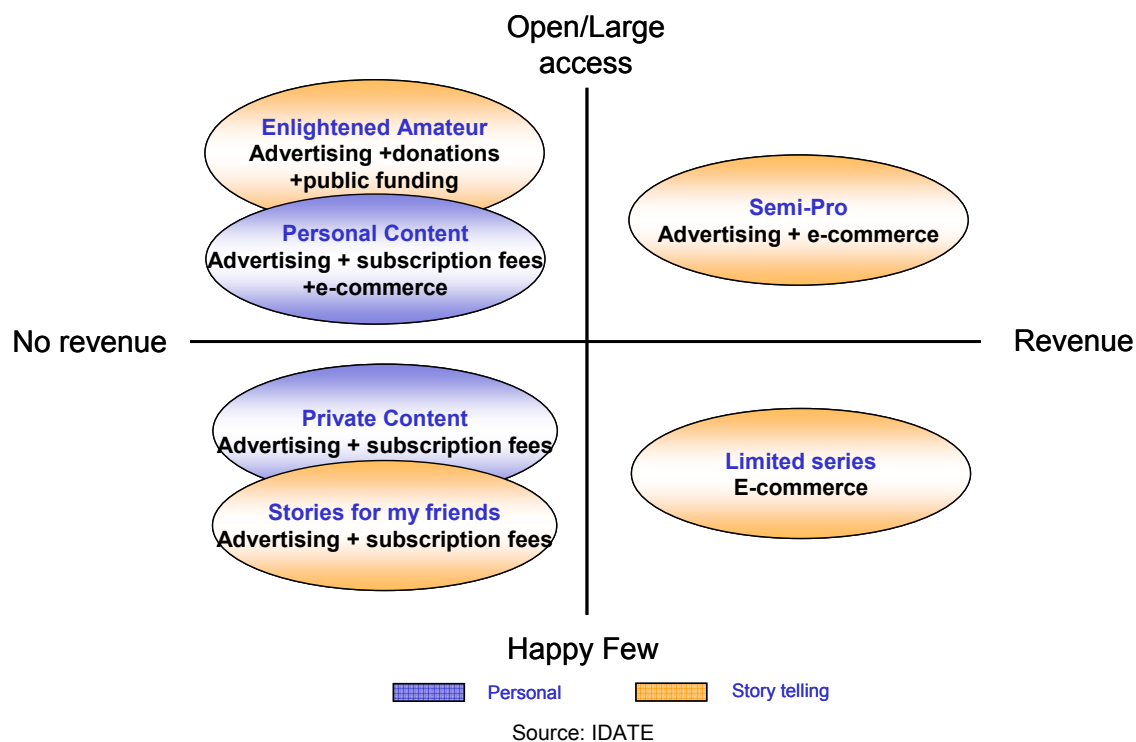
Some amateur content has proved to be hard, or even impossible, to sell. Advertisers are reluctant to associate their brands with unpredictable content. Donations could work for non-profit services with limited costs but not for popular services with commercial objectives.

The only certainties at present are that UCC mainly creates non-monetary value in terms of brand awareness, customer loyalty and cross-subsidising effect, and that the sources of revenue will vary according to the nature of the content and the type of platforms. Currently, a huge number of UCC platforms heavily rely on advertising revenue and this should still be the case in the future for large generalist platforms since they can gather an audience large enough to be attractive to advertisers. In addition, they will also develop complementary services (either designed for users, such as access to professional videos, or for third-parties, such as the sale of white-label solutions) so as to complement their revenue. More targeted platforms such as Lulu or Threadless will go on monetising amateur content directly to their users, and will also try to propose complementary services. It will probably take time to find the right balance of revenues between such streams as advertising, content sales, service sales and e-commerce, all of which will depend on the kind of content, type of services, consumer target, geographical scope and commercial objectives of the service.

The following figure gives examples of the main sources of revenues being generated by UCC platforms at present, according to the category to which they belong, (Cf. Part I for further details).

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[386] Cost per thousand or cost per mille (CPM) refers to the cost, per 1,000 people reached, of buying advertising space in a given media vehicle
[387] Ads that run before a video

Figure 104: Main sources of revenues for services of each category of the UCC classification

Open/Large
access

Enlightened Amateur
Advertising +donations
+public funding

Semi-Pro
Advertising + e-commerce

Personal Content
Advertising + subscription fees
+e-commerce

No revenue ——————————————— Revenue

Private Content
Advertising + subscription fees

Limited series
E-commerce

Stories for my friends
Advertising + subscription fees

Happy Few

Personal   Story telling

Source: IDATE

Personal: Content developed without editorial views (example: souvenir photos);

Story telling: Content developed with editorial views (examples: online photo album integrating comments, or music).

Happy Few: Restricted access to content. The creator appoints the people who will be authorised to access the content.

Large/Open access: Broad or totally open access to the content, that is to say that every person having access to the service (whether through a registration process or not) will be able to access the content.

Revenue: When it is possible for the creator to earn money (even if not systematically).

No revenue: When it is not possible for the creator to derive revenue from her/his creation (even if the UCC service could earn money thanks to this content).

It should also be noted that, because of the major uncertainties regarding revenues, UCC start-ups experience difficulty in obtaining venture capital. These uncertainties need to be addressed quickly in order to ensure that UCC providers can obtain the necessary financial resources not only to start new activities, but also to develop these activities in a proper way.

1.3.5.   UCC platforms can encourage users to enhance content quality, thus adding to the appeal of their services

For platforms and services, to enhance content quality has two sides: quality of content in terms of original content thereby reducing the risks of legal actions, and quality that will help them make a better business case. Although large platforms have already been able to draw large numbers of users and thus become, to some extent, attractive to advertisers, better quality in content could give them better commercial opportunities. These would include users being willing to pay for access, attracting even larger user bases, enhancing customer loyalty and advertisers being willing to pay more because of improved content and larger user bases.

Those traditional media which are integrating UCC in their regular activities also favour quality improvement, in particular in technical terms but also in professional, artistic and creative terms. This stems from their wish to respect certain standards of quality in order to meet the expectations of advertisers and regulators (in the case of publicly-funded broadcasters). For users, having the opportunity of being broadcast could provide an additional stimulus for making high quality UCC, if

they know how to do so. Platforms and media companies could cooperate to educate users on how to make such content.

As far as the integration of UCC into other domains is concerned, other dimensions of quality will play a role. There are already initiatives in other domains in which UCC is used, such as education and health. Here, the ability to monetise UCC is less of a goal. In these domains, quality of content focuses more on expert quality. When dealing with medical information, for example, it is essential to ensure the accuracy of that information. The risks of faulty information can be severe. Of course, safeguarding quality in these areas requires specific knowledge and may be restricted to specialised circles of expert users.

An outstanding qualitative content offer is also a question of the legal environment. The existing legal uncertainty regarding the liability of UCC platforms for UCC could act as a disincentive for platforms to actively engage themselves in quality control and to encourage users pro-actively to produce quality content. The more a platform engages with the content, instead of providing purely technical and support services, the more it risks being held fully liable for the contributions of users according to the strict (national) rules that apply to broadcasters and publishers (see Part IV, paragraph 1.3.8). As far as the legal environment is concerned, innovative solutions are needed that can differentiate the level of liability for UCC, taking into account such factors as the number of user contributions, the type and goal of UCC platform and the sources of revenues.

1.3.6. At the same time, UCC platforms could be more attractive for talented creators

Currently, large general UCC platforms such as YouTube and Flickr often serve as stepping stones for talented amateurs who benefit from the large audience of these services. Once, however, they have reached a certain degree of notoriety or level of professionalisation in their content, users will often try to monetise their quality content elsewhere, in particular on specialised (UCC) platforms which will generate revenue for them. This means there are possibilities to monetise content, where the larger, general platforms serve as stepping stone or talent scouts and are able to cooperate with these specialised platforms to gain from this. Moreover, this would present smaller platforms with commercial opportunities and a value-added besides the large, quite often advertising-driven, platforms.

To attract talented amateurs and to keep them loyal, UCC platforms can cooperate with these specialised platforms, serving as a filtering mechanism for high-quality, sellable content. Revenue-sharing models might be a good way to cooperate with creators and specialised platforms. The more they contribute to generating revenues, the more they could earn.

1.3.7. Main legal challenges

On the legal side, probably the most evident risk at the moment is the increasing number of threats of lawsuits because of allegedly unlawful content, for example because UCC violates intellectual property rights of third parties. Interviews confirmed that this is a matter of considerable concern for UCC platforms, as is the potential tightening of existing legal obligations that is discussed in some Member States. Under existing law, there is still much uncertainty under which conditions UCC platforms qualify for the hosting exemptions from liability under the E-Commerce Directive. At the same time, due to the total amount of content uploaded daily on popular Websites, it would be difficult to monitor all content and intervene quickly if monitoring obligations were laid down.

The more platforms are involved in monitoring and editing UCC, the likelier it is that they fall under the other legal extreme that is the strict liability rules that apply to publishers and broadcasters. Again, the law is ambiguous regarding the conditions under which UCC platforms qualify as publisher or broadcaster.

Early attempts have been made to address the liability problem in form of self-regulatory solutions, notably through agreements between UCC platforms and the content industry. One example is the Principles for User-generated Content, drafted between the professional content industry and some UCC platforms. In the Principles, UCC platforms agree to undertake a number of measures to eliminate IP infringements. In return, the content industry agrees not to sue UCC platforms that adhere to and obey the principles. The idea behind the Principles, namely to jointly define the scope and limits of the responsibility of UCC platforms for User-Created Content, is in principle laudable and useful.

Their scope is, all the same, rather limited, being focused mainly on intellectual property law. Overall, they seem rather thwarting for the content industry, while taking third-party interests, such as those of users and amateur creators, into account to only a limited extent.

1.3.8.　Growing body of self-regulatory solutions

Already today, there are a number of self- and co-regulatory measures for UCC platforms and UCC, and the number of initiatives keeps increasing. Initiatives can be the result of pressure from the content industry (as seen in the Principles of User-Generated Content), public bodies (such as the Key Principles of Social Networking Sites introduced by MySpace and Facebook), traditional media (as with the Blogger's Code of Ethics), users (as in the Blogger's Code of Conduct) or individual platforms (in form of so-called codes of conduct for users). Issues that are typically addressed in such initiatives are the existence of harmful and/or illegal content, respect of intellectual property rights, privacy issues and the protection of minors. Regulators can gain useful insights from the way private actors deal with these issues and, for some questions, the need for additional regulatory intervention might be alleviated by existing self- and co-regulatory initiatives. That said, there are also a number of critical issues that need to be taken into account when assessing whether existing self-regulatory measures are adequate and sufficient. They include a lack of transparency on the measures in place, the way they were drafted and the parties involved; the absence of involvement by third parties, notably users or their representatives, in the making of most existing initiatives; the resulting lack of balance; and, finally, the absence of effective sanctioning and monitoring mechanisms.

Another form of private rule-making is the use of contractual terms between UCC platforms and users. Also here, platforms address such issues as harmful content, protection of minors and privacy. Furthermore, the terms of use could provide valuable inspiration for regulators about possible ways of dealing with obstacles to the safety and lawfulness of UCC, and could lead legislators to the conclusion that certain issues are dealt with satisfactorily within the contractual terms. In order to decide the latter, a more extensive review of contractual terms would be needed. There is a great variety of terms and conditions, usually varying from platform to platform and country to country. For users, platforms and third parties this can also translate into a lack of legal certainty and guidance. It should be noted, moreover, that the terms of use are usually one-sided conditions that are imposed unilaterally upon users, and that the fairness and lawfulness of such terms cannot always be presumed. This is particularly true for terms of use in relation between a UCC platform and minors; according to the laws of some Member States, such terms might be even invalid.

1.4. UCC, for related industries

Figure 105: The main players of the UCC sector value chain

Source: IDATE
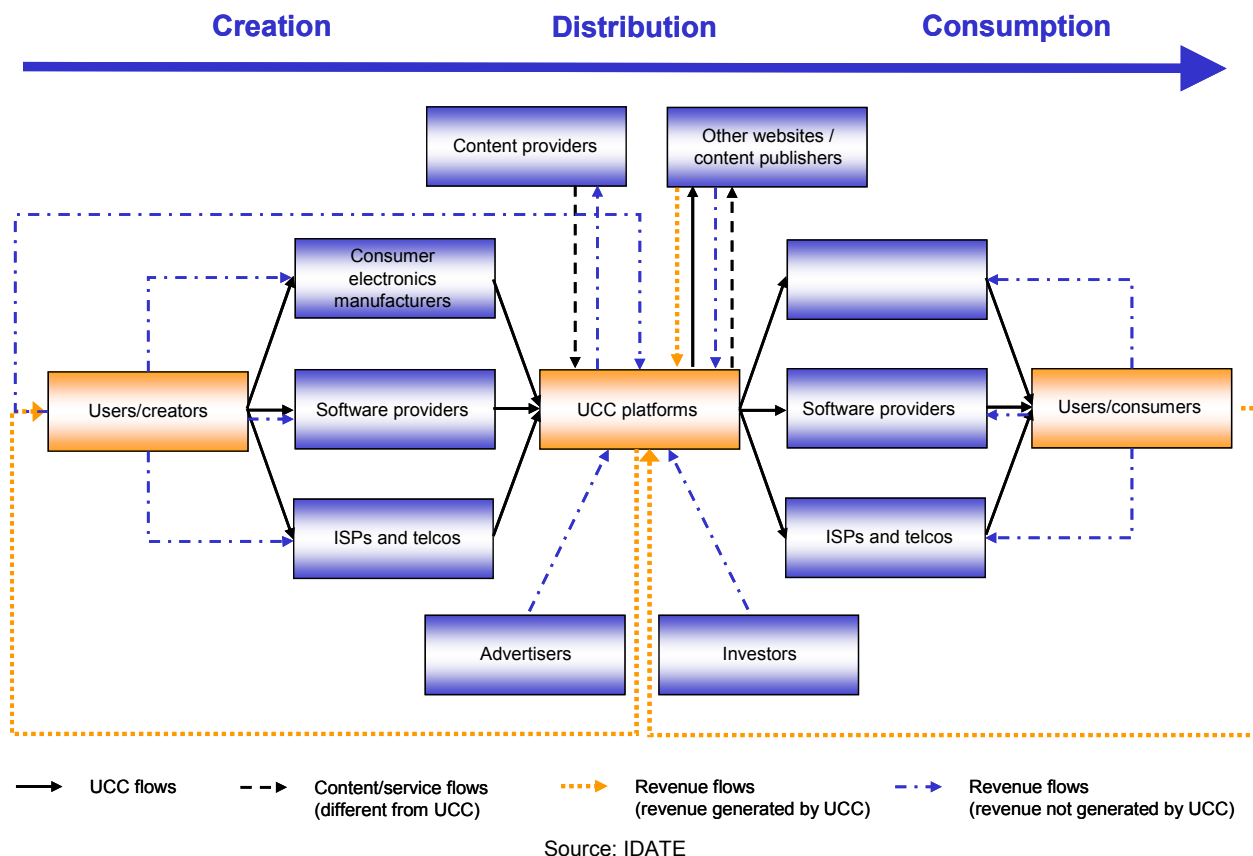
1.4.1. Telecom operators, as network suppliers, are essential in UCC roll-out. Can the networks sustain the growth?

Telecom operators play a crucial role in the successful roll-out of UCC services since they are required crossing points to access UCC services, either to upload or to view amateur content.

The revenue they will derive from future broadband subscriptions could be a strong incentive to develop extensive fixed and mobile broadband infrastructures. According to this point of view, there is maybe no need for national or European authorities to develop heavy incentive measures.

Current networks are not, however, necessarily designed for such demanding usage. Massive uploads and downloads of heavy files put a considerable burden on the networks, and especially on asymmetric networks which are not suited to massive uploads. The question arises if the existing networks will be able to support a further growth in UCC consumption and creation. A great part of them (if not the totality) will certainly have to be upgraded in the near future, otherwise user experience will be poor and it will not favour a massive adoption. The problem will then be the following: how to finance such colossal investments? If (rather low) flat-rate fees are highly desirable so as to favour the use of the Internet, it is doubtful that these fees will make it possible for the telecom operators to cover the technical costs – unless the consumers pay for what they really use.

The risk of a new digital divide then becomes multiple:

- Between built-up areas gathering high densities of population in which it should be profitable to develop networks at the cutting-edge of technology and rural areas with low densities of population

in which telecom operators will not invest on their own, because of the likelihood of a poor return on investment;

- Between households with high income who can afford expensive Internet access fees and households with low income who cannot.

Ensuring equal and homogeneous access to the fixed and mobile broadband Internet throughout Europe will have to be a main concern of public authorities.

1.4.2. Equipment providers: meeting the challenge of affordable, user-friendly, high quality devices and software

Consumer electronics manufacturers and software providers are also a key link of the value chain, since they provide the tools needed to create, share and view content.

As is the case for telecom operators, the UCC phenomenon could be a great opportunity to further develop their sales, since equipment providers are essential in the process of content creation. UCC could not develop without the help of the equipment industry. In order to support a sustainable growth of UCC, consumer electronics manufacturers will have to adapt their devices and software to a broader public, and to meet very different and sometimes antagonistic demands. Highly-skilled people will ask for more functionalities whereas new users will probably ask for basic devices. To address such a large audience, these tools have to meet high expectations. They need to be user-friendly, and used easily by everyone and not only passionate users; they must be cheaper, so that price is not an obstacle); and they also have to propose high technical quality functionalities, in particular storage and uploading capacities.

Even if it poses the challenge of addressing the needs of a wide range of users, and consequently their requests, UCC clearly widens the usual scope of consumers of electronic equipment to virtually the entire population. This provides the equipment sector with new major business opportunities.

1.4.3. Traditional media: amateur content as a new opportunity to enhance the consumer experience

The traditional media are showing considerable interest in original amateur content, in the sense of creative works made by amateurs. Most media companies have either developed their own UCC service or are seeking to take over popular UCC initiatives, at least in part.

Quality amateur content is used in offline media as well as on the regular Websites of media companies. It contributes to enhancing customer loyalty and to developing brand loyalty.

For traditional media companies to be able to integrate amateur content into their services, a necessary precondition is that such content complies with their standards of quality. This resulting demand for high quality UCC can also create incentives for amateurs.

In this discussion, quality refers mainly to technical quality – a video should meet the professional technical standards to be broadcast during a TV show – but also to creative and artistic quality. One should keep in mind that the notion of quality is multidimensional. The quality expected by the traditional media is closely linked to the "money making" dimension, that is to say that content should be of sufficient quality to be monetised. In other areas, however, quality is not perceived in terms of creativity but in terms of professional rigour. In the domain of citizen journalism and medical information, for example, it is the methodological approach and the rigour of information which is imperative. In other cases, the appreciation of the quality of content could be subjective, sentimental or cultural (such as family pictures, diaries and recipe books) and has low or even no damaging impacts on users.

Having said this, media companies have shown a great interest in amateur content in the recent past, as shown in the following table:

Table 1: Web 2.0 initiatives of media companies

Media company	Web 2.0 initiatives
News Corp.	Acquisition of MySpace, acquisition of Photobucket
Viacom	Acquisition of Xfire, community-centric video game platform, development of a series of virtual universes based on MTV programmes
CBS	Acquisition of Last.fm
BBC	Launch of Backstage
Skyrock	Launch of Skyblog, the largest French blogging platform
M6	Acquisition of Wideo and YooTribe, partnership with Habbo Hotel for the French version
TF1	Launch of Wat, backed by DailyMotion, acquisition of a 95% stake in "1,001 listes" (e-commerce), 26% stake in the Overblog blogging platform
ProSiebenSat.1	Takeover of German video site, MyVideo, 30% share of German social network Lokalisten.de, majority stake in German knowledge sharing service, Wer-Weiss-Was
Axel Springer	Acquisition of a 68.15% stake in Auféminin, online women's community

Source: IDATE, *Web 2.0 and social networking - New applications, new business models?, July 2008*

Conversely, UCC platforms are also demonstrating a great interest in professional content and are beginning to offer legal professional content delivery services.

The two sectors have obvious converging interests and should try to develop stronger links and cooperation.

1.4.4. Advertisers: great potential but need for reassurance

Advertising spending on the Internet will experience the fastest growth in comparison with all other media. UCC platforms gather among the largest audiences of the Internet and yet they are facing major difficulties in attracting advertising revenue.

It follows from the interviews that advertisers are reassured by what they know. UCC services are still in their infancy and advertisers are not used to this recent and fast-moving environment. Many advertisers still fear associating their brands with content over which they have no control for fear that it could negatively impact their brand or their image. Consequently, most of them are still quite reluctant to invest in such media.

Nevertheless, UCC platforms cannot do without advertising revenues and advertisers should have interest in reaching such large audiences. Therefore, their common interest would be to find new ways to advertise on UCC services.

UCC platforms give new opportunities to advertisers: they can help in reinforcing brand attachment, in creating a new relationship between the brand and the consumers (in particular for young people), in developing viral marketing and interactivity.

There is a need for UCC platforms to educate advertisers in a variety of approaches. These include efforts to emphasise the advantages of communicating through UCC platforms; to teach them how to use these services efficiently; and to provide them with new innovative forms of advertising. The current generation of advertisers has not grown up with the Internet, and is thus not adequately familiar with all the opportunities offered by this media; it may even have some rather irrational or exaggerated fears about the Internet. As the sector becomes structured and provides advertisers with clear legal certainties, thanks to national, European or self-regulation, then so will advertisers come to feel more confident and invest increasingly in UCC platforms.

2. Policy recommendations

It should be noted at the outset that several issues raised here are not necessarily specific to UCC. They can form part of larger issues of online digital content (markets) and ongoing consultations, such as those on copyright, consumer protection and communications law, the pending reviews of the E-Commerce Directive and the Data Protection Directive or the implementation of the Audiovisual Media Service Directive. In consequence, some policy recommendations touch upon ongoing broader discussions. Moreover, dealing with UCC will require an integrated approach since all issues are intertwined.

2.1. Access issues

Considering the opportunities UCC can provide for people, policymakers should, to foster UCC and the further development of the Web, further stimulate the access of users to the Web and UCC platforms in particular:

- Ensure availability of high capacity broadband networks, fixed or mobile;
- Ensure affordability of access to broadband networks;
- Ensure access to equipment such as computers or mobile devices;
- Ensure availability of easy-to-use software;
- Ensure the development of skills in people to be able to take full advantage of UCC.

This can be done by:

- Stimulating network operators to invest in networks or, if this proves difficult, play an active role in providing infrastructure in, for example, public-private partnerships;
- Stimulating competition by means of (self-)regulation;
- Taking measures to promote the ownership of PCs, or by making them available through public places such as schools and libraries. This might also be a way of providing access to broadband Internet;
- Promoting R&D programmes focusing on user-friendly applications;
- Developing necessary skills to take part in these new developments by means of the regular curriculum in schools or by providing courses at public institutions.

Proving people with the means to access the Web is a prime requisite for getting them involved in UCC. This is, of course, already on the agenda of policy makers as the importance of access to the Web and the ability to participate have already established. The development of UCC only confirms this importance as it illustrates the rapid development of the Web, its role in people's lives and the skills necessary to participate. It is important that no new or additional digital divide appear. Although the presence of such a divide is being heavily discussed in countries where access to networks is not so much of an issue anymore, the inability to participate in new developments, in spite of access, might create a new digital divide that is not based on inequality in access, but based on inequality in skills. Obviously in countries (or regions) where there is still a digital divide based on lack of access, the divide might be further widened by a deficiency in skills.

2.2. Interoperability issues

When dealing with UCC, users employ a number of different types of hardware and software. Content is created by means of cameras, Webcams, computers, mobile phones and more. Once content is created it can be edited using the same device that was used in its creation or another device if the former does not have an editing functionality. Once the content is ready for sharing, the user will need an account at a service or platform, prepare the content according to the specifications of this platform and upload the content. Simplifying this process so that the different hardware and software is more interoperable will provide a significant stimulus to UCC.

Standards, and thereby interoperability, are often developed in a global setting involving large producers of hardware and software. This makes it an ambiguous task for policy makers to actually directly influence standardisation. There are examples in which policymakers have been able to promote the adoption of standards in the industry, such as having DVB as a standard for digital TV. Equally, there are also examples in which this was less successful, for example promoting MHP as an open standard for set-top-box (STB) middleware. In several countries the proprietary standard OpenTV from LibertyGlobal is the main middleware used in STBs.

European policymakers are already engaging in the promotion of standards and the development of new standards for technologies in development. In that of the Interoperable Delivery of European eGovernment Services to Public Administrations, Businesses and Citizens (IDABC), the European Union actively promotes interoperability in ICT systems for cross-border public sector services to citizens and enterprises in Europe. In June 2008 the Semantic Interoperability Centre Europe was opened as part of this programme. The European Union is also funding the Global RFID Interoperability Forum for Standards (GRIFS) with the aim of improving collaboration between industry partners and standards organisations such as ETSI[388] and CEN[389] and thereby trying to maximise the global interoperability of RFID standards. Moreover, European policymakers can assist national, regional or local policymakers in dealing with interoperability issues. An example of this trend is the European Commission Recommendation on cross-border interoperability of electronic health record systems, which aims to provide Member States with a set of guidelines for developing and deploying interoperable electronic health record systems, allowing for cross-border exchange of patient data within the Community[390].

As was indicated earlier, UCC involves a broad array of hardware and software used and promoting interoperability directly might prove difficult. However, it is important that interoperability and standardisation issues are addressed. To some extent, these issues will be sorted out by industry itself or provide opportunities for third-parties to be active, but there will be issues that need to be addressed by policy makers. The latter issues could be addressed by creating a level playing field by actively promoting standardised, interoperable technologies; by being actively involved in discussion platforms; by funding research; and by creating the right conditions for industry, such as by facilitating cooperation in research projects.

2.3. Economic issues

The discussions on the value of UCC are centred on its financial value in terms of direct revenues from content sales. It is understandable that this is a primary concern of commercial platforms, but focusing solely on this can lead to an underestimation of the potential gain to be made from UCC. Although the development of UCC is taking place largely in the entertainment domain, there are also cases where the value of UCC is regarded as something other than finding a viable business model.

In other domains, UCC is proving to be a valuable addition to content that is generated by established (traditional) content providers or professionals. There are numerous platforms and communities in which users create content that can have significant value (other than financial) to others. On several large medical platforms, users exchange medical information such as experience with treatments and medical drugs[391]; there are sites where people can exchange information on teaching methods[392] and in November 2008 the Dutch government announced plans to make financing available for Dutch educational professionals to draw up "open" teaching material[393]. There are also sites where agriculturalists make available information on farming, for example for the benefit of farmers in Third World countries[394]. Although this application of UCC is still developing, there seems to be great value other than direct revenues by selling content or by advertising.

This provides opportunities for applying UCC in the form of crowd sourcing in domains in which policymakers have set goals such as education, development aid and crisis management. As was indicated in Part IV, paragraph 1.1 there is value-added in UCC that goes beyond generating

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[388] European Telecommunications Standards Institute
[389] European Committee for Standardization
[390] http://ec.europa.eu/information_society/newsroom/cf/itemlongdetail.cfm?item_id=4214
[391] For example HealthBoards, PatientOpinion and PatientslikeMe
[392] For example Curriki, WikiEducator and CCLearn
[393] *'Boven het maaiveld' – Wikiwijs* (2008), Speech by the Dutch Minister of Education, Culture and Science
[394] For example Collecting and Exchange of Local Agricultural Content (Celac), Kenya Agricultural Information network (KAINet)

revenues, for example in terms of developing skills, enhancing political participation and inclusion. This value-added is difficult to measure by current standards and would require new ways of determining value.

2.4. Legal and policy issues

UCC platforms as well as users are currently confronted with some legal uncertainty regarding the scope and applicability of existing laws, such as audiovisual law, copyright law, e-commerce law or data protection law. Concrete guidelines which deal with such issues as the conditions under which UCC platforms and/or amateur users are considered as providing "audiovisual media services", "e-commerce services", "data controllers" or "hosting services" could all do much to improve this situation. Having more clarity in the near future regarding the question of when UCC platforms/amateur "broadcasters" qualify as audiovisual media services would help Member States to implement the Audiovisual Media Service Directive correctly. Similarly, the question of when UCC platforms qualify as hosts or users as data controllers could be addressed in the framework of the pending reviews of the E-Commerce Directive and the Data Protection Directive.

Another potential subject matter for the review of the E-Commerce Directive, or for a separate consultation, is the conditions under which UCC platforms qualify for the liability exemption for hosting services in the E-Commerce Directive. Here too, more guidance is needed, and further consultations could serve to help determine the nature of an appropriate solution. In the course of the review of the E-Commerce Directive, the legislator should also issue clear conditions for notice and take-down procedures, also taking into account the rights of users (transparency, proportionality of sanctions, counter notice and put-back procedures) and a more active involvement of users in detecting and notifying unlawful content. At present, the E-Commerce Directive relies in this respect predominantly on initiatives from the industry and self-regulatory solutions. Nonetheless, the existing self-regulatory solutions examined in this study fail to define adequate and comprehensive rules for notice and take - down, counter notification and put back procedures. In particular, they fail to involve consumers and their representatives in the process of drafting self-regulation, contrary to the requirements of the directive.

In the medium-term, the hosting rules in the E-Commerce Directive should be revisited in the light of new information intermediaries such as UCC platforms, online fora, auction sites and search engines, and in the light of a more active role of the user. In this context, the issues of how the shared responsibilities of users and UCC platforms for the lawfulness of contents, the protection of minors and user privacy could or should be given form and become an element of future legal or self-regulatory solutions need to be investigated too.

An issue of great concern for users, and especially for their protection, relates to privacy threats. It must be noted that in many situations the real problem in the adequate protection of user privacy is not so much the existence of gaps in the legal framework, but its application in practice. There is a need to scrutinise the privacy policies of UCC platforms more closely in the light of their obligation to properly inform users about the processing of their personal data and certain practices, such as sharing personal data with third parties or particularly intrusive forms of direct marketing such as behavioural advertising. Policymakers should, moreover, encourage platforms to develop user-friendly and yet accurate forms of informing users about the processing of their personal data. In addition, there are also gaps in existing data protection law that require attention, for example with regard to the protection of personal data of minors. These are issues that could be taken into consideration in such opportunities as the forthcoming review of the Data Protection Directive, as well as in the ongoing review of the ePrivacy Directive.

It is clear that amateur creators can provide valuable contributions to the existing media offering, and enrich it with artistic creations, critical news analysis, entertainment and discussion. As such, amateur creators deserve full support. This also requires a supportive legal environment. Policymakers should provide for more legal certainty regarding the rules that apply to amateur users. Ideally, the applicable legal framework must respond to the function and capabilities of amateur users. In particular, it should not lead to over-regulation. In this regard, it might be necessary to formulate thresholds or introduce other differentiating criteria. On the other hand, where amateur users perform similar functions and have a similar impact to professional users, policy makers must also consider to what extent reasons of fairness, free competition and protection of the interests of third parties make it necessary to treat such amateurs in similar ways to professional suppliers, with regard to both their obligations and journalistic or other privileges.

Policymakers should, moreover, consider the need to protect and support amateur users in their contractual relationship with professional suppliers. In particular, there is a need to develop guidelines and best practices regarding the extent to which users can be required by contract to transfer their copyright in favour of UCC platforms. On-going legislative developments at Member State level that aim at increasing the legal protection of authors in their contractual relations with producers should be closely followed. In addition, new solutions that would favour the production of transformative or derivative works might prove necessary and beneficial so that users can build upon existing works. At present, however, there is still considerable uncertainty as to how this objective should be best achieved. The on-going consultations on the European Green Paper on Copyright in the Knowledge Economy may provide valuable insights on the issue and could pave the way to a new solution.

Adequate solutions to legal problems need not always be legal ones. Technical solutions might be able to address some issues, such as certain privacy concerns or issues of unlawful content. Yet before mandating technical solutions, there is a need to examine the viability and limits of any such solution. Most importantly, technical solutions must respect the legal order and may not create new problems in terms of interoperability, access issues and exclusion, disabled users, private autonomy, security and privacy. Another alternative to regulatory intervention are self- or co-regulatory measures. The number of self- and co-regulatory solutions in the field of UCC is increasing. Policy makers should closely monitor the development of self- and co-regulation and whether these initiatives are viable and adequate. In this context, particular attention should also be paid to the way users and their representatives are involved in the self-regulatory process, and whether effective monitoring and sanctioning mechanisms are in place. An interesting question that merits further research is to what extent users can actually be part of effective solutions to legal problems, such as guaranteeing the lawfulness of UCC, protecting privacy or elaborating European policies with regard to the protection of minors. Finally, educating active users about their obligations and privileges under information law ("User's Guide to UCC"), and educating UCC platforms about the rights of users can also prove beneficial to the extent that legal obligations are clear and easy to understand.

2.5. Socio-cultural issues

UCC can provide a powerful tool for achieving great diversity in terms of content and viewpoints. Providing users with the means to express themselves will not only result in a wide variety of content that might have entertainment value or enable users to share their content with family and friend. It will also provide them with the means to voice their opinion on important issues. Again there are already many examples of platforms or communities where users attribute content on matters such as news, politics and activism potentially developing into a powerful way of putting across a viewpoint other than that from established sources. Besides giving people the opportunity to participate in discussions that are important to them, UCC can be viewed as an increase in pluralism, which is an important policy objective behind the regulation of media market.

This diversity in content and viewpoints not only translates into a diversity of platforms, services and communities, but also into the ability of users to express themselves or their (virtual) identity based on this myriad of individual platforms, services and communities leading to cultural fragmentation. This might make it more difficult to identify homogeneous groups of people who are bound by one specific culture. Although this aspect is not new to UCC and has, to some extent, always existed, it is strengthened by the opportunities offered by UCC, and the Web in general. Knowing this can enable policymakers to incorporate issues of cultural fragmentation in their policy, and even target specific groups of users, not by the whole of their cultural identity but by specific areas of interest. If active participation in education-related UCC is part of the identity of users, policymakers can address education policy through the platforms and communities that are available in this domain.

Active participation in online environments does present users with certain risks, as pointed out in Part IV, paragraph 1.2.4. Part of the risks stems from potential abuse of the personal information which users have to make available if they want to use platforms or services. Another part stems from the large amount of data which users make public voluntarily in the process of engaging in UCC. In Part IV, section 7.3 of the legal chapter the involvement of users as part of the solution is discussed extensively.

This would also involve educating users, not only on the threats, but particularly on the opportunities which UCC can provide them, thus promoting media literacy in the broadest sense possible. This involves providing those who have already incorporated UCC in their daily life (namely, the younger

generations) with the knowledge and skills to use it to the fullest potential. It further involves helping those groups that are less well at home in these new environments (such older generations, parents of the younger generations) to educate them on the possibilities of these new environments and to provide them with the skills to keep the younger generations safe.

There are already policy instruments in place that can be extended to deal with some of the issues mentioned. Media literacy policies are aimed at improving the skills and competences related to media. This concept of media literacy can be – and in many cases is already – extended to incorporate new media[395]. The acquisition of these types of skills has already been established in many European curricula[396] and this can provide an excellent vehicle for also including new developments such as UCC. Moreover, there are examples of Member States having adopted rather active media literacy policies that include a responsibility for regulatory bodies. In the United Kingdom, for example, the media regulator Office of Communications (Ofcom) has the statutory duty to promote media literacy, including monitoring progress of media literacy[397].

2.6. Quality content issues

The extent to which the lack of quality of content is an issue depends on the purpose that is foreseen for specific types of UCC. As was pointed out in the interviews, it is expected that users will not be more creative, or better at content production, simply because of the availability of UCC tools. Indeed, this should not be a goal in itself. However, if the percentage of talented creative people is stable, providing more people with the means to get involved in UCC will potentially increase the absolute number of users that are able to provide high quality content. Moreover, as there are indications that UCC is starting to be incorporated in the activities of public and private organisations, the skills which people develop in informal settings might prove beneficial or even necessary for participation in social and political debates, and they could become more valuable employees.

It must be kept in mind that quality has several dimensions. In current discussions, quality is often focussed on the "money making" dimension, whereby content has sufficient quality for people to be willing to pay for it. However, there are more dimensions to quality that will be desirable or even necessary to strive for. To make UCC more relevant for traditional media, it will be desirable to have content available that has certain professional, creative or artistic quality. In other domains quality is a necessity because low quality might prove to be damaging. In news reporting, particularly when reporting on specific people or organisations, quality of the reporting in terms of, for example, journalistic principles such as "listening to both sides" will be necessary to prevent faulty reports and potentially resulting damage. Moreover, when dealing with UCC in other domains, such as medical information, faulty information can have severe damaging effects. Again, dealing with this will require a balanced approach of the right policy instruments, aimed at specific groups of users and educating users on quality requirements that are necessary in certain fields. This can be done through general education of users through the curriculum of schools and through targeted education via platforms and services. Here policy makers could cooperate with these platforms (or at least stimulate them) to draw up guidelines for content.

2.7. Future monitoring and future research

UCC is at its beginning, and this study has outlined the potential for a number of exciting new developments. These include the arrival of new business models, mobile UCC, greater participation of users in quality control, content monitoring and data protection, the increase in broadband capacities, innovative usages, and increasing participation in social and political debates. Moreover, this study was intended to provide a broad overview of technical, economic, socio-cultural developments, drivers, obstacles, implications and legal and policy issues. It identified various subject matters that would require further in-depth research such as in the fields of user privacy; protection of minors;

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[395] This includes empowering users to critically assess online content, extending digital creativity and production skills and encouraging awareness of copyright issues, inclusion and awareness of tools to find content such as search engines. European Commission: *A European approach to media literacy in the digital environment* (2007). COM(2007) 833. Brussels.
[396] *Current trends and approaches to media literacy in Europe* (2007), study for the European Commission. found at: http://ec.europa.eu/avpolicy/media_literacy/studies/index_en.htm
[397] Section 11 of the Communications Act December 29th, 2003. found at:
http://www.opsi.gov.uk/acts/acts2003/ukpga_20030021_en_3#pt1-pb4-l1g11

business models; the contribution of users to the realisation of such public policy goals as diversity and pluralism; bridging the digital divide and a safer user environment; competition issues; technical solutions; and the relationship between established and new media, including UCC. Other important issues that should be researched further are the impact of UCC in different private and public domains; the actual use of services by users and citizens; and new models for determining the value of new developments such as UCC or social computing. It should be noted that many of these issues are part of broader issues and should accordingly be seen and studied in this context.