The Internet in Everyday Life

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The increasing presence of the Internet in everyday lives has created important issues about what it means for access to resources, social interaction, and commitment to groups, organizations and communities. This article discusses how the use of the Internet affects traditional social and communal behaviors, such as communication with local family and commitment to geographical communities. Although for the sake of brevity the term “the Internet” is used, the article discusses a broader range of computer-mediated communication, including instant messaging (“IM”) and mobile phones capable of accessing the Internet.

The Changing Nature of the Internet as a Social Phenomenon

What started in 1969 as a network between four computers in Southern California has morphed 35 years later into a global system of rapid communication and information retrieval. The Internet was designed to be decentralized and scalable from the beginning. These design features have given the Internet room to expand to immense proportions and to keep growing. By the end of 2003, there were an estimated six hundred million regular users, and the Google search engine could reach more than 3.4 trillion unique web pages. While the Internet was a novel curiosity in academia in the 1980s, it went mainstream in the early 1990s, when email was joined by the World Wide Web. Since then, the Internet has become so pervasive that in many parts of the world its presence is taken for granted. Widespread nonchalance about such a powerful set of technological tools illustrates how deeply the Internet has embedded itself into everyday life and mapped fluently onto the goals of its users.

First Age – The Internet as Dazzling Wonder: When the Internet went from the arcane world of library computer terminals to the home and office in the 1990s, it was heralded as a technological marvel. Early adopters congratulated themselves on being progressive elites, and techno-nerds rejoiced in newfound respect and fame. Bespectacled, nerdy Microsoft founder Bill Gates was as much a superstar as rock singers and professional athletes. All things seemed possible. The cover of the December 1999 issue of *Wired* magazine, the Internet's greatest cultural champion, shows Icarus leaping from a cliff to reach for the ethereal sun. Icarus’ graceful posture points upward as his sinewy body places seemingly boundless faith in an unfettered cyber-future.

The first clear pictures from the frontier of cyberspace came from early studies of online culture. Investigators, peering into online communities such as the Whole Earth 'Lectric Link (WELL) and LambdaMO, provided insight into how early adopters multitasked and negotiated identities, given a paucity of social cues. Their goings-on provided grist for stories in the mass media and ethnographies. Instead of traveling to remote places, ethnographers only had to turn on the Internet and tune in to online “virtual communities”. Fascinating stories abounded of colorful characters and dangerous situations, such as virtual transvestites and cyber-stalkers.

Some pundits went too far, extrapolating from such esoteric online settings to the generalized Internet experience. However, as the Internet became broadly adopted, it became clear that communication would not primarily be with far-flung mysterious others in virtual worlds, but with the people whom users already cared about most: family, friends and workmates. Nevertheless, ideologies of the unique, transformative nature of the Internet persisted as enthusiasts forgot to view it in historical perspective *(presentism)*. For example, long distance community ties had been flourishing for generations, using automobiles, telephones, and airplanes.

Other analysts assumed that only online phenomena are relevant to understanding the

Internet *(parochialism).* They committed the fundamental sin of *particularism,* thinking of the Internet as a lived experience distinct from the rest of life. This approach often shaded into elitism, as only the small percentage of the technologically adept, had the equipment, knowledge, time and desire to plunge so fully into cyberspace.

The social exuberance for all things technological departed quickly in 2000. For one thing, that year's dot.com stock market bust curbed enthusiasm and media attention. Special newspaper Internet sections shrank in the wake of instantly-vanishing dot.com vanity ads, and the pages of *Wired* magazine shrank 25 percent from 240 pages in September 1996 to 180 pages in September 2001, and another 22 percent to 140 pages in September 2003. When the rapidly contracting dot.com economy was brought down to earth, it took Internet euphoria with it. At the same time, the Internet had become so widely used in developed countries that it was becoming routinized. Familiarity breeds cognitive neglect, and like the telephone and the automobile before it, exotic stories diminished just as the widespread diffusion of the Internet increased its true social importance.

Second Age – The Internet Embedded in Everyday Life: The story after the hype is more interesting, if less fashionable. The Internet plugs into existing social structures; reproducing class, race and gender inequalities; bringing some new cultural forms into the foray; and mapping onto everyday life in both novel and conventional ways. Attention now focuses on the broader questions of the "Internet in society" rather than on "Internet societies". The thrust of research is now moving from culture-oriented small sample studies and abstract theorizing toward using surveys to study the more diffuse impact of this new communication and information distribution medium in the broad population of Internet users (and nonusers). Where the first age of the Internet was a period of exploration, hope and uncertainty, the second age of the Internet has been one of routinization, diffusion and development.

Research shows that computer networks actively support interpersonal and interorganizational social networks. Far from the Internet pulling people apart, online social networks often bring them closer together. Internet users are more likely to read newspapers, discuss important matters with their spouses and close friends, form neighborhood associations, vote and participate in sociable offline activities. The more they meet in-person or by telephone, the more they use the Internet to communicate. This "media multiplexity" means that the more people communicate by one medium, the more they communicate overall. For example, people might phone to arrange a social or work meeting, alter arrangements over the Internet, and then get together in person. Rather than only connecting online, in-person or by telephone, many relationships are complex dances of serendipitous face-to-face encounters, scheduled meetings, telephone chats, email exchanges with one person or several others, and broader online discussions among those sharing interests. Extroverts are especially likely to embrace the ways in which the Internet gives them an extra and efficient means of community. However, introverts can feel overloaded and alienated.

Internet-based communications have always fostered social networks serendipitously. Even *eBay*, the successful auction enterprise, helps create communication between hitherto-disconnected specialized producers and collectors. In 2003, many software developers have consciously focused on identifying, using and analyzing these social networks. Participants in online networking sites, such as *Friendster,* not only describe themselves online (single, male, truck driver aged 35), they list their friends. A key hope is that friends of friends will be able to contact each other.

Although most people in most developed countries use the Internet to find information or to contact friends, many people are not online. Surveys and ethnographies have shown how racial minorities, the economically disadvantaged, and those who do not read English use the Internet less

than others. This has serious social consequences as companies and government agencies place more services exclusively online. Thus, the "digital divide" means that the lack of Internet access and use can increase social inequality. There are digital divides within countries and a global digital divide between countries. Moreover, different countries have different sorts of divides. For example, Italian women access the Internet much less often than Italian men or northern European women. Overall, however, the income/locational/cultural/linguisitc gap is shrinking between those who are comfortable with computerization and those who are not. The gender gap has already disappeared in some places.

The digital divide constitutes more than an access/no access dichotomy. There are concerns about the quantity of information flowing through the network and the quality of experience. The quality of the Internet experience is a key concern for reducing social inequality. First, the ability to perform a complex and efficient search is not a skill learned by osmosis, but through experience and openness to the potential of the technology. Second, bloated software that inundates the user with ambiguous options and icons can intimidate novice users instead of providing the best framework for learning. Third, content providers must consider the time lag between experienced early adopters, late adopters and newbies. These populations can have significantly different expectations about what to do online, and how to do it. Fourth, many sites are only available in English. Fifth, it is difficult to routinely use the Internet to communicate if one's contacts are not online.

At one time, analysts expected all societies to use the Internet in similar ways. Yet, comparative research shows different national patterns. The extent to which such media as email or instant messaging are used depends on a complex interplay between people's tastes, financial resources, culture, geographic location, location in the social structure, and national infrastructure. At times, it is not a matter of personal choice but of social constraint: It is foolish to send emails or instant messages if few people are reading them. For example, Catalans mostly use the Internet for acquiring information and shopping – train schedules, theater tickets – and less for communicating by email. Catalonia is a local society in a salubrious climate where people gather in cafes to chat face-to-face. To take another example, teens in developed countries communicate more by mobile phone and instant messages than by email. In Japan, the proliferation of web-enabled phones means that two hitherto separate communication media are becoming linked: Japanese teens and young adults frequently exchange emails on their mobile phones, or use their PCs to send short text messages to mobile friends.

With physical co-presence continuing to be important, the Internet supports "glocalization" rather than Marshall McLuhan's imagined "global village". In the community and at work, the Internet facilitates physically-close local ties as well as physically-distant ties. People often use the Internet to communicate quickly with nearby others without the disturbance of a phone call or in-person visit. For example, one study of "Netville" near Toronto found that active Internet users knew the names of more neighbors, had visited more of them, and used the Internet effectively to mobilize against their real-estate developer. Another Toronto study found that coworkers were more likely to use the Internet when they worked in the same building, in part because they had more tasks and concerns in common. Even many long-distance ties have a local component, as when former neighbors or officemates use the Internet to remain in touch. E-diasporas abound, where migrants use the Internet to stay linked with their old country: communicating with friends and relatives, reading newspapers online, and providing uncensored information.

The extra communication and information seeking of Internet users affect available time, as the increased use of the Internet is correlated with decreased time at housework, television viewing and time spent in person with family members. Two models have been suggested to explain this. The hydraulic model treats time as a zero-sum property. Hence, an increase in the use of the Internet directly corresponds with a decrease in other activities. The efficiency model says that

people on the Internet can use time more effectively and may get more communication and information out of their day. This second efficiency model appears to be more accurate, as people combine email, IM and mobile phone use with other activities. Indeed, with multitasking, it can be said that some people live a 36-hour day, doing things concurrently online and offline.

The Internet has affected social networks at work. Early efforts at "groupware" were fitful, in part because most knowledge workers do not work in one group. Many now are engaged in distributed work, operating through geographically dispersed and sparsely-knit social networks. Rather than being parts of traditional bureaucratic hierarchies (with organizational structures looking like inverted trees) in which each person fits into a single group, many knowledge workers are partial members of multiple teams and report to multiple superiors. Many teams are geographically dispersed so that much communication is by the Internet. Moreover, those who spend the day working on personal computers often turn to the Internet to acquire information rather than asking a coworker in a nearby cubicle. They form "communities of practice" with fellow practitioners who may never have met in-person: exchanging know-how and empathy online. However, proximity still has its advantages because it provides a broad bandwidth of multisensory communication – people learn more when they see, hear, smell and touch each other – as well as enabling the exchange of physical objects.

The Social Possibilities the Internet

The Internet – or any technology – does not simply "cause" anything, just as a light switch high on a wall makes access difficult for children, but not impossible. Understanding the implications of the Internet calls for describing some of the possible social activities that can be accomplished by using it. For example, people can take advantage of rapid communication with simultaneous partners via instant messaging, access daily journals ("blogs"), and send instant announcements to one or one hundred specific people through email.

Yet, the Internet does not determine the nature of communication. Indeed, a fruitless line of "media richness" research in the early 1990s failed to show much fit between the nature of a communication medium and what it was used for: People used what their friends and their coworkers did. The Internet lends itself to particular styles of communication that are parts of a person's overall ensemble of everyday communication, alongside the telephone and in-person encounters. Thus, the Internet's technical characteristics provide a possible means of organizing relationships with other people, not a blueprint of how the action will or should take place.

Atemporality: Most interaction takes place in "real time". On the telephone and in person, people assume that communication is reciprocal and that the delay between utterances is brief. By contrast, email, like letters, allows people to communicate on their own time. Yet unlike letters, emails reach their destination within minutes. As long as systems are not overloaded, the only significant delay in email interaction is the time lag set by the user's attention. What email has afforded, as an asynchronous activity, is greater individual autonomy. People can select when to turn on their computers and their email browsers, to whom they wish to respond, and who else in their network they want to include in the email interaction. The cost of this autonomy is uncertainty regarding when and if the receiver will read the message and reply.

Bandwidth: The number of bits that can be pushed through a computer network connection has risen from 110 bits per second (bps) in the mid-1970s to 30,000 bps in the early 1990s and upwards of one million bits for a high-speed connection in 2003. High capacity bandwidth is important for speed, so that text messages and web pages become readable without distracting delays. Greater bandwidth affords richer content. This can mean the difference between sending terse and ugly text messages, or sharing photos, music, and seeing one another via Internet-connected cameras ("webcams").

Increased bandwidth usually allows computers to be connected continuously. The Netville study of a wired suburb found this always-on feature of their network to be more valued than sheer speed. This persistent Internet affords people the habit of sending email or checking the web whenever the inclination strikes them. Employers now complain about workers' use of the Internet for personal matters while family members complain that their loved ones are tied to their computers during supposed leisure hours.

High speed and always-on connections allow for a different relationship to the Internet than micromanaged dial-up connections with slow file access and concerns about usurping telephone lines. While dial-up connectivity facilitates a discrete Internet session, always-on Internet encourages spontaneous use.

Globalized, Ubiquitous Connectivity: The world of computerization has oscillated between centralized control -- computer centers -- and personal control -- standalone computers. The current situation, "networked computing," means that information (and control) flows up and down between central servers and somewhat autonomous personal computers. Yet, despite organizational control, many people in organizations also use their computers for social and personal matters.

Computer networks are expanding as the worldwide web is becoming more comprehensive and worthy of its name. Ubiquity means the widespread availability of usable computing and computer-mediated communication. Travelers in the developed world are coming to expect to be able to connect to the Internet wherever they are, through public cybercafes, high-speed links in hotels, wireless “hotspots,” or the local offices of their organizations. Workers can now be reached on vacation. Public cybercafes proliferate in the less-developed world, catering to people who cannot afford to own a computer or who do not have reliable phone and electricity connections. Other solutions are developing, such as Indian postal workers who carry wirelessly-connected computers on their rounds. The continuing development of global availability means even more people and organizations will be reachable online. All users could be connected to all, either directly or through short chains of indirect ties.

Wireless Portability: Currently there is a shift away from “wired” computing – connected to the Internet through cables – to portable, wireless computing. Portability means that people can take it with them: one does not have to depend on others' equipment to connect. There are already more wireless mobile phones than wired phones in use worldwide. Although wires still carry the most bandwidth, mobile phones are becoming integrated with the multifunctional capacity of computers. This affords the possibility that people will be less rooted to place, having the ability to connect from anywhere. Portability means that much work is being carried home on laptop computers or high-capacity storage devices.

Relational Data: Vannevar Bush, the great grandfather of the Internet, once suggested that information could be organized into trails of association rather than grouped into discrete categories (as in an encyclopedia). This has translated into “web surfing”. People move through web networks, from one linked piece of information to another, rather than exhausting a particular category. In some instances these links are dynamic, such as the recommendations on an Amazon book page, while others are more static, such as a personal list of favorite links.

Personalization: Most operating systems now allow each user to have their own settings, email accounts and desktop aesthetics. Instant messenger accounts, accessible from any Internet terminal are tailored to the person, and not the house or the particular computer. Ubiquitous computing could soon mean that whenever people log on to communications devices, the device knows who they are, where they are, and what are their preferences. Such personalization, even at its early stages, is fostering societal shifts from place-to-place connectivity (a particular computer) to person-to-person connectivity (a particular user's account).

Ubiquitous Production and Distribution: The Internet has partially democratized the production and dissemination of ideas. More people are providing information to the public than ever before. Email discussion groups, web-based chat rooms, and Usenet newsgroups foster conversations among (more-or-less) like-minded people. All of these communication media are based on many-to-many communication, in contrast to email and instant messaging that usually one-to-one communications. Although there have been fears that the like-minded will talk only to each other, in practice there is much diversity in these interactions, and interesting ideas can be copied and forwarded to others. Rather than inbred sterilization, major concerns on lists are "flaming" – offensively rude comments – and "spam" – off-topic comments that are often sent by commercial interests.

For those who want more complex means of communication, easy-to-use software now facilitates do-it-yourself web pages. Recent computer programs have transformed the creation of simple web pages from an arcane art to straightforward creations of nonspecialists. At one time, most web pages were relatively static, but now blogs make frequent updating simple. Many blogs combine personal reflections, social communication, and links to other websites.

This democratization of computing is not just recreational. Open source development is a widespread and unique social formation fostered by the Internet. It is a type of a peer-production system where individual members of a team contribute and distribute computer code freely and openly. One popular open source operating system (GNU/Linux) contains many millions of lines of computer code. Another open source product, Apache, runs most of the world's web servers. Without the Internet to connect specialized developers and distribute their code, open source would have remained a slow-moving, poorly communicated, and badly coordinated activity for hobbyists.

Yet, even open source development does not exist exclusively on the Internet. Linux user groups populate most North American cities, popular face-to-face conferences are generating revenue, and developers like to talk to each other in person. The Internet has facilitated, not monopolized, this particular type of production.

The most notorious exchange of complex information is the downloading of music, computer programs, and movies via the Internet. As only computer bits are exchanged, and not material goods, many downloaders feel the right to obtain songs for free. The complex interplay between immaterial media, their physical containers such as CDs, their copyright licenses and the costs of distribution have challenged producers, consumers and the legal system alike.

The Turn Toward Networked Individualism

For those with who can pay for recent technological services, the Internet can let individual users communicate when they want, with whom, wherever, whenever, and have their experiences personalized. Indeed, the Internet (along with mobile phones and automobiles) is fostering a societal turn away from groups and toward networked individualism: people connected to each other as individuals rather than as members of households, communities, kinship groups, workgroups and organizations. Especially in the developed world, this flourishing of person-to-person connectivity has also been fostered by social changes such as liberalized divorce laws and by technological changes such as the proliferation of expressways, mobile phones, and air travel. The shift to a ubiquitous, personalized, wireless world fosters personal social networks that supply sociability, support, and information, and a sense of belonging. The individual user is becoming a switchboard between her unique set of ties and networks, with people separately operating their specialized ties to obtain needed resources. Although people remain connected and supportive, individuals in unique networks have supplanted the traditional organizing units of the household, neighborhood, kin group, and work group.

Networked individualism is having profound effects on social cohesion. Rather than people being a part of a hierarchy of encompassing groups like nesting Russian dolls, they belong to multiple, partial communities. It is not a matter of moving from place to place, but from person to person. Increasing specialization of tastes and combination of roles is not a product of the Internet. Yet, the design of the Internet, culturally rooted in a specific brand of individualism, considers the person regardless of place and regardless of a socially imposed structure such as a kinship network. Social coordination may be usurped as the roles of kin-keepers become either less important or more overloaded. Teenagers' parents do not get to approve of buddy lists nor web sites visited.

The technological development of computer networks and the societal flourishing of social networks are affording the rise of networked individualism in a positive feedback loop. Just as the flexibility of less-bounded, spatially dispersed, social networks creates demand for collaborative communication and information sharing, the rapid development of computer-communications networks nourishes societal transitions from group-oriented societies to a society of networks.

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