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Imaginative Research in a Changing World

Humanity in Cybernetic Environments

Edited by

Daniel Riha

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Humanity in Cybernetic Environments

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Humanity in Cybernetic Environments

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Introduction

Daniel Riha

The papers in this volume reflect the debates that progressed during the 3rd Global Conference on *Visions of Humanity in Cyberculture, Cyberspace and Science Fiction*, held at Mansfield College, Oxford, United Kingdom in July 2008. The edited draft papers make up a snapshot output for actual publishing.

This multi-disciplinary conference project is a successful rebirth of the 2003-2004 conferences held previously in Prague in the frame of the ID.net *Critical Issues* research project.

The focus of these papers addresses the changing role of humans and the concepts of humanity in the present and envisioned cybernetic environment. The massive adoption of ever-emergent ICT technologies changes human cultural activity. The uprise of new forms of communication such as online social networking, internet video-casting, massive online multiplayer gaming and alternative living in the virtual worlds, call for academic exploration. These issues raise increasing attention of academics from a wide range of disciplines, including philosophy, sociology, anthropology, literature studies, new media studies and many others.

The various topics covered by this volume range from the merger of body and technology, new forms of humanity, gender issues in cyberspace, online social networking, analysis of literary cyberpunk concepts in literature and movies, online historical representation, interactivity analysis and serious gaming simulation development to legal issues in avatar worlds.

This book consists of 23 chapters organised into nine parts:

PART I: Technology-Governance-Gender & Distance;
PART II: Time & Place;
PART III: Avatars-Bodies & Identity;
PART IV: Merger & Embodiment;
PART V: Critical Philosophies;
PART VI: The Literature of Cyberspace;
PART VII: Robots-Cyborgs & Replicants;
PART VIII: Education-Science & Game Design;
PART IX: Character-Community & Anthropology.

The first part comprises 2 chapters on loosely corresponding topics:

Kristin Veel's 'Surveillance Narratives: From Lack to Overload' describes the ways of approaching the cultural and aesthetic implications of surveillance. She proposes the application of narrative structures as an

approach to the analytical works on surveillance and explores how surveillance is reflected in the narrative structures of Edgar Allan Poe's *Man of the Crowd* and Michael Haneke's *Caché*.

Oksana Cheypesh's 'Technology, Environment, the Masculine, and the Feminine in Distance Cultures' is concerned with the characteristics of various perspectives of technology, environment and gender in different cultures as evident in the films 'Final Fantasy: The Spirits Within' and Metropolis' as well as the videogame 'S.T.A.L.K.E.R'.

The second part of this book presents an article focused on the representation of the past on the internet. Martin Pogačar's 'Memonautica: Online Representations of the Yugoslav Past' deals with the influence of presentations on perception of historical internet events and seeks out ways in which narratives affect understanding of the past with regard to the online representations of the former Yugoslavia.

The book's third part considers selected theoretical issues on identity in cyberspace. Mark Grover's 'Practical Identity in Cyberspace' examines to what extent the Christine Korsgaard´s *The Sources of Normativity* might be applied in the case of online identity and in particular, enquires the composition of online practical identity.

Ewan Kirkland's paper, 'The Interpolated Cyborg: Theorising the Avatar in Haunting Ground', discusses the avatar/player relationship with regard to the videogame agency, textuality and interactivity issues. The author seeks the links between intertextuality and the concept of the avatar in the survival horror videogame Haunting Ground.

Kristi N. Scott and M. Heather Dragoo's 'The Baroque Body: A Social Commentary on the Role of Body Modification in Scott Westerfeld's *Uglies* Trilogy' discusses the possibilities of the science fiction genre as a medium where the defining characteristics of personhood might be explored.

The fourth part of this book presents papers concerned with merger of body and technology in arts. Elizabeth Borst 'Cyborg Art as a Critical Sphere of Inquiry into Increasing Corporeal Human-technology Merger' examines the visual representations of corporeal human-technology integration in the fine arts. She further argues the need to introduce the original cyborg-art genre as a newly recognised area of research in relation to body-technology amalgamation.

Zeynep Gündüz' 'Interactive Dance: The Merger of Media Technologies and the Dancing Body' offers an interesting view on the relationship between the human body and interactive ICT in the context of cultural practices of contemporary dance. She uses the stage performances and the case study in *Apparition* to demonstrate her findings.

The fifth part considers Nietzsche's value for cybernetics and selected aspects of technoscience that may support the transformation of organizational principles in society.

Daniel White's 'Consciousness, Embodiment, and Communication: Nietzsche's Bioinformatics' proposes Nietzsche's relevance to the communication theory. He submits the hypothesis that Nietzsche's work offers a solution to the 'frame problem' in information theory and has a relevance to the posthuman identity in science fiction and cyberspace.

Tamar Sharon's 'Techno-scientific Schizophrenia vs. Techno-scientific Paranoia: Subsumption in the Schizoid Double Pull' uses Deleuze and Guattari's analysis of paranoia and schizophrenia as the effects of the fundamental organising principles of capitalist society. It identifies a contradiction between emancipating pull of new technologies that might move the human society towards a posthuman organisation and 'modernist' tendencies that seem to realise the 'subversive' potential.

Part six examines a selection of cyberpunk literature. Katherine Harrison's 'Gender Resistance: Interrogating the Punk in Cyberpunk' analyses cyber-literary texts Candas Jane Dorsey's short story *Learning About and Machine Sex*' and Neal Stephenson's novel *Snow Crash* with the intention to identify and evaluate the extent of resistance to mainstream society including resistance to gender stereotypes.

Juan Ignacio Munoz' 'Cyber-Shamanism as a Theory of Simulacra in *Ygdrasil*, a Novel by Jorge Baradit' presents a study of the representation of virtuality and trauma. He inquires as to the definition of principles of the Chilean cyberpunk.

Maria Poulaki's 'When Differences become Unimportant: *Casshern* and the True Social of Cyberpunk' investigates the actual meanings of the cyberpunk movement as she presents her findings on a case study of the film *Casshern*.

Part seven continues with two chapters devoted to science fiction and one paper focusing on virtual law. Michael J. Klein's chapter 'Beholding the Uncanny: Replicants, Cyborgs and Clones in Science Fiction' deals with the role of artificially produced organism entities in the science fiction genre and the stance of the readers to this cyber-race.

David Lindsay, Melissa de Zwart and Francesca Collins present 'My Self, My Avatar, My Rights: Rights of Avatar Identity and Integrity in Virtual Worlds'. Here they analyse the relationship between the user in a virtual world and his/her avatar. They open an interesting issue of the legal treatment of avatar rights.

Laura Schuster's 'What does a Scanner See? Techno-Fascination and Unreliability in the Mind-Game Film' is interested in paranoia and conspiracy incorporation in the plot of the movie *A Scanner Darkly* and shows its relationship to the issues of technological innovation. She presents

her findings on the case of the film and recognises the title as emphasising its own function as a mediated and synthetic presentation of a story.

The eighth part presents papers that argue the state and development of virtual communities and the application of multimedia and videogames beyond entertainment. Alex DiGiacinto's 'Creating the Digital Sandbox? Implications of Spatial Construction in Cyberspace' uses the analogy of ant colonies for examination of the traditional bulletin board organization.

Peter Ludes' 'Social Sciences as Multimedia Games' discusses the use of alternative media to the written word for extending the scope of social scientific modes of theory-formation beyond traditional uni-linear texts to networked social-science-as-arts games.

Daniel Riha's 'Game Design Technology as a Tool for Research and Education in Cultural History' investigates the potential of an interactive 3-D medium for the documentary work in the context of cultural studies. He summarises a methodology from the game studies that supports the use of a 3-D game space as dispositive for knowledge representation.

The ninth part of this book presents papers concerned with online social networking. Jordan J. Copeland's 'Shared Space: Seeking Real Insights from Virtual Friendships' draws on Aristotle's classical theory of friendship and compares contemporary philosophical reflections on preferential relationships to investigate the nature and significance of virtual friendships.

Leighton Evans' 'A Phenomenological Analysis of Social Networking' reflects the philosophy of Martin Heidegger. This chapter identifies social networking as the technology designed to organise persons and their relationships with others. Furthermore, it shows that the essence of this technology, called Enframing, affects the human relationships in a way in which other modern technologies do not simply because of the usage of the technology by humans.

Anna Maj and Michał Derda-Nowakowski's 'Cyber-Communities in Their Quest for Free Culture: User-generated Content Portals in the Anthropological Perspective' uncovers the boundaries of cyber-freedom and cyber-democracy and analyses the most important ideas of cyber-communities. They exhibit the elements of wiki-identity and folksonomic order of knowledge. Their paper further explores some new areas of anthropological research such as cyber-ritual analysis and research on online communities and their cyber mythologies.

Lynda Williams in her chapter 'Character as Virtual Reality Experiment in Identity', presents her science fiction novel The Courtesan Prince as an enactment of the author's struggle to understand identity as it relates to gender, human nature and medically-induced changes in personality.

PART I

Technology-Governance-Gender & Distance

Surveillance Narratives: From Lack to Overload

Kristin Veel

Abstract
This paper points out ways of approaching the cultural and aesthetic implications of ubiquitous surveillance. It does so by juxtaposing two nodal points in history, both characterized by new modes of the gathering and systematizing of information about citizens: the emergence of the modern metropolis in the 19th century, and the pervasive dissemination of information and communication technology in the early 21st century. The issue is thus not first and foremost surveillance as a technique of war, but surveillance in its more basic sense, referring to the collection and processing of information. The method of approach is to look at how surveillance is reflected in the narrative structures of fiction in respectively Edgar Allan Poe's 'Man of the Crowd' (1840) and Michael Haneke's *Caché* (2005). The findings of this comparison indicate a shift in the connotations of the surveillance figure from surveillance as linked to *obtaining* information to the importance of *selection* of information in order to render the collected information useful.

Key Words: Surveillance, Narration, Fiction, Information Structures.

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1. Poe's 'The Man of the Crowd': Surveillance in the 19th Century

A. Surveillance Practices and the Modern Metropolis

Although it can be argued that surveillance is basic to human society in so far as in its most basic sense it involves one person overseeing another, it is a practice whose pervasiveness is linked to urban modernity and the rise of the nation state. Our contemporary understanding of private space and surveillance can be traced to some of the historical changes accelerated by the Industrial Revolution, particularly the migration of rural populations into urban centres. Whereas identities were previously established through family and community networks, the masses of the modern metropolis meant that anonymity became a new condition of life.[1] Transformations in living arrangements, architectural forms and cultural sensibilities all participated in a new notion of privacy, which in turn raised the need for new forms of authorisation for instance in relation to the state administration in order to be

able to vote or to have access to a defence in court.[2] This entails a registration of personal information, such as names, addresses, and next of kin.

The most direct form of surveillance has to do with policing, whose emergence in its modern sense is likewise connected to urbanization and the emergence of the modern state.[3] Jeremy Bentham's infamous panopticon prison (1791), which according to Foucault marked a shift from punishment and spectacle to self-discipline,[4] is an example of initiatives, which aim to manage the new forms of social organisation.

However, it is important to note that although surveillance increases in this period, we are not dealing with a clearly defined negative movement towards more control. Surveillance mechanisms develop as tools in the attempt to manage the conditions of life in the modern metropolis paralleling other measures and tendencies in society. The period from the middle of the 19th century until World War I is thus for instance characterised as a liberal period, marked by more permissive passport rules.

B. Poe's 'The Man of the Crowd'

Edgar Allan Poe's short story 'The Man of the Crowd' from 1840 in many ways epitomizes the experience of the modern metropolis in the 19th century and the effect it has on the humans inhabiting it. It features a convalescent man as our narrator and his observations of the turmoil of the city which he observes at first from the safe distance behind the window of a London coffee house; later, however, as one particular man raises his curiosity, he hurls himself into the moving masses giving us an unsettling close-up of the stalking conscience.

The pivotal point of the narrative structure is his inclination to *observe*. It is his inability to let one particular man out of his sight, which drives the text forward. A scrutinization of how his surveying capabilities and the narrative structure are intermingled is thus of interest: We first encounter him sitting behind the 'large bow window'[5] of a coffee house. The view he gets of the street is restricted; his mode of vision is described as 'peering through the smoky panes into the street.'[6] Nonetheless, what goes on in the street compels him so much that he quickly looses interest in his newspaper and the other people in the coffee shop and turns his full attention towards the street.

The process of watching and its different stages are carefully described. At first he keeps a distanced view and observes the crowd in general and abstract terms; deducing the class, occupation, and weaknesses of the people in the street, grouping them into neat categories from their appearance. From his distanced point of view it is possible for him to rise above the crowd and transform the bustling mass into a social pattern. Their eyes, hands and movements are not the properties of individuals, but form a mass ornamentation.

It is this kind of anonymity and lack of knowledge about the neighbour which fuels his imagination once his attention focuses on one particular man. This occurs about halfway into the text and causes the position of the narrator to shift from clear overview to embedded confusion. His categorising overview of the masses is replaced by a curiosity towards the individual. This changes his mode of surveillance and his method of obtaining information:

> I felt singularly aroused, startled, fascinated. 'How wild a story,' I said to myself, 'is written within that bosom!' Then came a craving desire to keep the man in view - to know more of him. Hurriedly putting on an overcoat, and seizing my hat and cane, I made my way into the street, and pushed through the crowd in the direction which I had seen him take; for he had already disappeared. With some little difficulty I at length came within sight of him, approached, and followed him closely, yet cautiously, so as not to attract his attention.[7]

Here we get an insight into the curiosity which this man generates, and of the narrators wish to get to know him, not by encountering him and talking to him, but by observing his actions without his knowledge and consent. This way of relating to the stranger seems to be a response to the simultaneity of fear and attraction, which the anonymity of the modern city stimulates in him. A narrative impetus is also fostered and he starts to fantasize about the man he is following, believing to see him carry both a diamond and a dagger under his coat. However, the pursuit itself and its labyrinthine, circuitous route quickly begin to carry as much weight in the text as the characteristics of the man himself. The narrator is taken through many districts of the foggy city and its outskirts, in which the stranger display no other goal with his wanderings than seeking out crowds and immersing himself in these. The surveyor eventually tires:

> And, as the shades of the second evening came on, I grew wearied unto death, and stopping fully in front of the wanderer, gazed at him steadfastly in the face. He noticed me not, but resumed his solemn walk, while I, ceasing to follow, remained absorbed in contemplation. 'This old man,' I said at length, 'is the type and the genius of deep crime. He refuses to be alone. He is the man of the crowd. It will be in vain to follow; for I shall learn no more of him, nor of his deeds. The worst heart of the world is a grosser

> book than the 'Hortulus Animæ' and perhaps is but one of the great mercies of God that 'er lasst sich nicht lesen.''[8]

The surveillance practise of our narrator thus ends in a confrontation in which he discovers the indifference of the person he has pursued. Since his goal is to seek out the crowds - 'he refuses to be alone' - being followed is no particular frightening experience for him. The power-relation between surveyor and surveyed is thus reversed: the narrator is the pursuer, but he is also a man who has not had any control over his urge to follow and survey, whereas the man of the crowd does not reveal any unease about being monitored; as an inevitable part of managing the urban crowds, he might even expect it.

The search for information and knowledge, which drives the narrator's pursuit as well as the reader's continued reading, thus both ends in the encounter with something that cannot be understood. The question of what it is possible to know about the man of the crowd, the human dweller of the modern metropolis, is left unanswered. Lack of information thus seems to be an inevitable condition whether the object of scrutiny is followed from afar or faced directly and this can be identified concretely in the construction of the narrative structure of the text.

2. Haneke's *Caché* and Surveillance in the 21st Century

A. Pervasive Surveillance in the 21st Century

Now, let us make a leap forward to more contemporary times: whereas Foucault in his conceptualisation of Bentham's panopticon focussed on the exercise of discipline and control of the few over the many, Thomas Mathiesen has with his notion of 'synopticon' highlighted the importance of the many that watch the few facilitated by media such as television and internet.[9] Gilles Deleuze extends the analysis of the contemporary conditions of surveillance by describing a shift from a discipline society to 'societies of control.'[10] In societies of control, surveillance is no longer confined to specific fixed spaces, because digital technology allows for constant and mobile surveillance that spans most areas of life. This vision of surveillance structures resembles Haggerty and Ericson's description of the combination of military, administrative, policing, and marketing surveillance practices as a 'surveillant assemblage.'[11]

Although most Western societies have strict legislation on sharing personal information,[12] digital technology has made information much more easily accessible to the average person with the result that the amount of information we encounter - as well as leave behind - has increased dramatically.

If we look at the use of the figure of surveillance in contemporary fiction it is often not connected to a lack of information, but to an overload of

information. An illustrative example is Michael Haneke's film *Caché* from 2005, in which both the main characters of the film and the viewers are confronted with long sequences of surveillance footage in which we are not able to distinguish relevant from irrelevant information. As I shall attempt to show the connotations of the figure of surveillance are not primarily concentrated on obtaining information, but display an acute consciousness of the necessity of selection in order to be able to make use of the surveillance material.

B. Haneke's *Caché*

Whereas 'The Man of the Crowd' gave us an insight into the mind of the surveyor, *Caché* pivots around the surveyed, their frustration and bewilderment. *Caché* tells the story of a couple who suddenly find themselves under surveillance when they start receiving videotapes with recordings of their house and the comings and goings of the family. The main protagonist, Georges, quickly comes to suspect that it is related to his past and a guilt with which he has never dealt. When he was six years old his parents wanted to adopt an orphaned Algerian child by the name of Majid, but Georges in childish selfishness tells lies about the boy and thereby causes him to be sent away to an orphanage. The film in this way raises a multitude of political class and race issues lurking behind the pleasant bourgeois surface.

It is never finally determined in the film who is involved in the fabrication and distribution of the surveillance tapes. The film thus centres on Georges' repressed guilt and how childish malice may have grave repercussions for the people involved far beyond the ones envisaged at the time. What is of interest for us in this context is the way in which the mode of surveillance that is practised comes to influence the narrative structure of the film.[13]

Already in the practise of surveillance and its function within the narrative can we note a shift from 'The Man of the Crowd'. In Poe's text the form of surveillance in question was based on one person following another - a one-on-one interaction that only exists until the surveyor gets tired. In *Caché* the surveillance is recorded and the tapes can be distributed widely. The form of surveillance with which we are operating here is thus part of a media and image system which situates us in a world dominated by information and communication technology that lays out different rules for the conditions and reception of surveillance than was the case in the streets of Poe's 19th century London. In 'The Man of the Crowd' it was the pursuit, which drove forward the narrative. In *Caché* we are searching for the narrative in the mass of information with which we are presented in the form of dreams, memory, TVnews, and clips from the literary talk show that Georges hosts.

Caché is to a large degree built as a classic who-dunnit drama following the protagonist Georges in his quest for the person pursuing his family, revealing small portions of the story piece by piece. But rather than signifying a lack of information the atmosphere of the film is permeated by a feeling of having too much information at hand and not knowing what to do with it. Georges is suddenly send hour-long tapes of his own front door, his childhood home, and eventually a conversation he has with the grown-up Majid in his worn-down apartment, also capturing the reaction of Majid after Georges has left. All these are scenes, which Georges would not have had access to were it not for the hidden camera. It is information, which he has not asked for, and which he has no real wish to access that drives the story forward.

Another concrete example of the way in which this sense of overload and too much material dominate the atmosphere of the film is seen in the setting that surrounds Georges. All of the shots from his environment (be it his home or his TV studio) show interior lined with books, tapes or other forms of clutter, so as to shelter from the outside world or the repressed parts of the past. This sense of overload of information, in which Georges is embedded, is thus transposed to the viewer who often finds herself confronted with settings with a plethora of visual impressions in which it is difficult to distinguish what is important and what is not.

The title *Caché*, 'Hidden', may in this context be read as pointing to the way in which the surveillance taking place in the film uncovers Georges' guilt and forces him to confront a repressed part of his childhood. It may also refer to the way in which the surveillance allows for lots of ambiguities to remain in the film. In fact there are very few things of which we can be absolutely sure. It thus remains unresolved whether or not Anne, the wife, is having an affair, who produces the tapes, and whether or not Georges' own son, Pierrot, had any role to play in the production of the tapes or not.

The last scene gives a powerful example of the consequence of overload for the comprehension of what takes place before our eyes. It shows the broad stairs to Pierrot's school swarming with children. There is no point of focus, which makes it possible to watch the scene in two significantly different but equally likely ways. Either it remains a scene viewed from a distance with lots of children in which no one stands out, because we do not know on what we should focus. In another viewing you may notice Majid's son engaged in conversation with Pierrot. This significant encounter, which opens for an interpretation that incriminates Pierrot, is likely to go unnoticed by many viewers. There is nothing to point it out as significant and for all we know it might not be - we cannot even hear what they are talking about. The film does not give definite answers. However, it points to the way in which surveillance cameras are of not much use, if we do not know what we are

looking for, and how narratives such as these do not point to one truth, but many.

3. Conclusion

Surveillance studies have become an academic field in its own right within the last fifteen years. Although the majority of publications approach the issue from a perspective within the social sciences,[14] film studies especially have since their infancy articulated an ongoing fascination with voyeurism, touching on many of the core issues of surveillance.[15] However, it is only within recent years when visual art exhibitions[16] and reality TV-programmes began responding on a larger scale to the increasing pervasiveness of surveillance technology in our everyday lives in Western societies that cultural studies has taken a serious interest in issues of surveillance.[17]

Nonetheless, there is still a significant need for inquiry into the cultural and aesthetic implications of the increased dominance of surveillance in a larger historical perspective. It is this need that my present research project (of which I have tried to give a brief glimpse in this paper) aims to address by focussing on the imprints which surveillance leaves on cultural imagination. The pivotal point is an examination of the way in which fiction (filmic and literary) relates to surveillance, not only as a theme, but as an element of the narrative structure.

Looking at the portrayal of surveillance in fictional narratives such as *Caché* and 'The Man of the Crowd' provides valuable insights into the notions of surveillance at work in these two particular periods, which are both characterised by significant changes in surveillance practises and the mechanisms of handling information. Although the historical period covered in this paper is broad and the conclusions consequently rather general, the aim has been to point to the movement from lack to overload as a significant tendency which cannot be overlooked and which deserves further scrutiny. There is no doubt that the increasing pervasiveness of information and communication technology leads to the accessibility of more information. Today, the problem facing those who need to transform information into knowledge is thus rarely that of having too little information and more often the fact that too much information is accessible. Reading the present condition of ubiquitous surveillance in comparison with that of the advent of the modern metropolis in the 19th century allows for a more in depth understanding of this condition.

Narratives represent particularly useful source material, because they in their very nature as narratives are engaged in the process of turning incongruent information into consistent stories. Their renditions of surveillance practises thus manifest themselves on two levels in the narratives at which I have looked in this paper: firstly, as concrete references to

surveillance as a topoi in the narrative, and secondly in the way in which surveillance comes to be a determining factor in the progression and composition of the narrative structures of the stories told. Surveillance thus comes to stand forth as a cultural figure which - when unfolded in a narrative - display valuable insights into our relation to and interaction with information. It may thus be used to further the understanding of the mechanisms, which has brought us to our present condition of close interrelation between surveillance and the technologies of information and communication technology.

Notes

[1] See, for instance, G Simmel, 'Die Großstädte und das Geistesleben', in *Soziologische Ästhetik*, Philo, Bodenheim, 1998, pp. 119-33.
[2] See, for instance, N Abercrombie, S Hill and B S Turner, *Sovereign Individuals of Capitalism*, Allen & Unwin, London, 1986.
[3] See, for instance, V Bailey (ed), *Policing and Punishment in Nineteenth-Century Britain*, Rutgers University Press, New Brunswick, N.J, 1981.
[4] M Foucault, *Discipline and Punish: The Birth of the Prison*, Penguin, Harmondsworth, 1979.
[5] E A Poe, *The Man of the Crowd*, BookSurge, Charleston, S.C., 2004, p. 1.
[6] Ibid, p. 2.
[7] Ibid, p. 8.
[8] Ibid, p. 13.
[9] T Mathiesen, 'The Viewer Society: Michel Foucault's Panopticon revisited'. *Theoretical Criminology,* vol. 1, 1997, pp. 215-34.
[10] G Deleuze, 'Postscript on the Societies of Control', *October,* vol. 59, 1992.
[11] K D Haggerty and R V Ericson, 'The Surveillant Assemblage', *British Journal of Sociology,* vol. 51, 2000, pp. 605-22.
[12] See, for instance, D J Solove, *The Digital Person: Technology and Privacy in the Information Age*, New York University Press, New York, 2004.
[13] When looking at this in comparison with Poe's short story it is important to take into account that we are looking at narrative renditions in different media. Nonetheless, the comparison is illuminating for our present purpose.
[14] See, for instance, J Baudrillard, 'Telemorphosis', in *CTRL [SPACE],* T Y Levin, U Frohne and P Weibel (eds), MIT Press, Cambridge, Mass., 2002, pp. 480-86. G Debord, *The Society of the Spectacle*, Zone Books, New York, 1995. Foucault. A Giddens, *The Nation-State and Violence*, Polity Press, Cambridge, 1985. K D Haggerty and R V Ericson, *The New Politics of Surveillance and Visibility*, University of Toronto Press, Toronto, 2006. D Lyon, *The Electronic Eye: The Rise of Surveillance Society*, Polity Press, Cambridge, 1996. Mathiesen. Solove.

[15] N K Denzin looks at films and voyeurism in *The Cinematic Society: The Voyeur's Gaze*, Sage Publications, 1995, and in 'Rhetoric of the Temporal Index: Surveillant Narration and the Cinema of 'Real Time'', in *CTRL [SPACE],* T Y Levin, U Frohne and P Weibel (eds), MIT Press, Cambridge, Mass., 2002 pp. 578-94 Levin argues that surveillance functions as a narrative condition and structure in films from the 1990s.
[16] See, for instance, the 2001 exhibition *CTRL[Space]*, E*chelon: Who is watching you?* from 2007 or *Goodbye Privacy* 2007.
[17] See, for instance, J E McGrath, *Loving Big Brother: Performance, Privacy and Surveillance Space*, Routledge, London and New York, 2004.

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Technology, Environment, the Masculine and the Feminine in Distance Cultures

Oksana Cheypesh

Abstract
Science fiction and computer games from distant cultures propose unexpected specifics in their visions of the human technology within the same genres. These characteristics unveil different perspectives of technology, environment, and gender in different cultures. This paper explores representations of technology and environment; the masculine and the feminine in the North American animated film *Final Fantasy: The Spirits Within* (2001), directed by Hironobu Sakaguchi and Moto Sakakibara (co-director); in the Japanese anime, *Metropolis* (2002), directed by Rintaro, based on the comic by Osamu Tezuka (1947–1949), and in the Ukrainian computer games *S.T.A.L.K.E.R.: Shadow of Chernobyl* (2007) and *S.T.A.L.K.E.R.: Clear Sky* (2008) by GSC Game World. I will show three tendencies in relationships: among technology, the endless space, and its masculine explorers (North American); among technology, urban environment, and the masculine (Japanese); and among technology, nature, and the feminine (Ukrainian). The paper will analyse historical and cultural backgrounds that influence interpretations of these specifics. Also, I will formulate a schema of dynamic global vision of the concept of gender in relation to technology and environment.

Key Words: Science Fiction, Technology, Environment, The Masculine, The Feminine.

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The perceptions and interpretation of the world are different in different countries; they frame outlook, serve as markers of their cultures, and accent specifics of their informational domains. Cultural exchange and global circulation of artistic phenomena are theoretically able to diminish cultural differences; however, in practice cultural elements are livelier. To illustrate, I choose contemporary artistic works from three distance cultures, North American, Japanese, and Ukrainian. The works have gained popularity internationally; they interpret the same phenomena within science fictional discourse.

This paper will show that contemporary science fictional representations of environment, technology, and gender vary in different

cultures; moreover, the representations spontaneously unveil traditional cultural perspectives.

Also, I will show that traditional world perception and interpretation remain visible in cross-cultural dynamics, where a culture-recipient interprets a foreign element stereotypically, sometimes archaically, within its own cultural apparatus. This discussion will enable a better understanding of the cultural framing of perception and will illustrate the degree of vitality and influence of traditional views, sometimes with archaic elements, in portraying universal themes of environment, technology, and gender. Such discussion can contribute to the understanding of global cultural dynamics as locally determined cultural interpretation of the other[1], not as mere cultural borrowing of foreign elements.

Colonizers of North America rooted traditional cultural views on this continent. Hundreds of years later, North American cultural phenomena represent an outlook that, even transformed, preserve fundamental characteristics of old world perception and interpretation. The first settlers perceived threat, severity, and unfriendliness of nature because of difficulties in adapting to the new environment - extended landscapes, an unfamiliar climate - and to exhausting physical labour: development of virgin lands. From the times of the colonizers, North Americans have preserved the vision of dangers of the wild. The American animated film *Final Fantasy: The Spirits Within* (2001), by Hironobu Sakaguchi and Moto Sakakibara, reflects this tendency. Aki Ross, one of the main characters of the film, sees repetitive dreams of an alien planet with an unwelcoming environment, sharp rocks, red sands, sky, and a sun in the desert.

Dependence upon technology is one more North American specific. From the time of colonization, machines significantly eased development of lands and protected humans from sometimes-exaggerated dangers of the wilderness. Technology helped to change the environment toward human safety and convenience. Humans on this continent ideologically chose to develop technology at the expense of nature. In this context, Final Fantasy visually opposes monotony of natural backgrounds and beauty of structurally organised pieces of technology. For instance, Aki's dream locates an alien spaceship in the centre of the frame, among vanishing lines and colours of the planet's landscape. After structuring nature, the human experienced harmony with the improved environment. To illustrate this, the film employs one of the most popular cinematographic findings for depicting attractions of urban environment: sunset among skyscrapers. The frame perfectly balances the walls of buildings with this natural phenomenon, and shows harmony between these images, implying significance of both. Therefore, technology fuses into the North American outlook to the point where it becomes an ideological absolute, a condition of the world's existence. One of the episodes of Final Fantasy shows streets of New York after a catastrophe that

happened a hundred years before. For these years, nature did not spread in the urban kingdom, forces and elements did not leave marks on buildings, cars, and streets, covered with grey dust and frozen among memories of the breakdown.

American Masculinities. A Historical Encyclopedia argues that in North America 'concepts and experiences of masculinity have been at the heart of […] life'[2]. Donna Haraway in '*A Cyborg Manifesto*' attributed exhausting resources to initially masculine behaviour. These statements help us to conclude that masculinity determined both the colonization of wilderness on this continent and the cultural representations of technologic supremacy over nature.

Overall, North American traditional world perception and interpretation originate from the outlook of colonizers of this continent who saw threats and dangers in nature with its severity of climate, unwelcoming landscapes, and visual monotony extended to the horizon. Technology became a decisive factor in optimising nature and approximating it to the needs and desires of the human; in parallel, humans developed ideological dependence on technology, as found in North American science fiction, including Final Fantasy. Visual artistic works propose images of symbiosis between technologically transformed environments and natural phenomena. Finally, technology ideologically evolves from a force of progress to the absolute, a breakdown of which will preserve current time and space for a long period. Ideology of the masculine power and dominance determined cultural perceptions and representations of technology and nature in North America.

Japanese society had a historical relationship with technology different from Americans. Thus cultural perceptions and interpretations of this phenomenon and its relationships with nature and gender are much different for the Japanese. As Takayuki Tatsumi points out in Full Metal Apache, from the 1860s Japan has persistently 'westernized, modernized, and especially 'Americanised' itself[3], mostly to gain military power and to influence international politics. These processes included application of Western technologic findings and resulted in transforming nature and destroying authentic culture.[4] The author reads these Japanese processes in the context of postcolonial theory and states that 'Japan became a colonial power itself;'[5] that resulted in disempowering the Japanese identity. Tatsumi outlines this hybrid identity in terms of the philosophy of 'dependence'[6], 'creative masochism' and cyborg.[7] The author applies a metaphor of chimerical cyborg to a Japanese emperor, who changed his appearance from powerful to vulnerable: from a military uniform to a civilian suit.[8] Therefore, an initially masculine impulse to modernise military potential and to gain power by advances of contemporary technology resulted in feminisation of

the masculine. Such transformation in outlook painfully changed traditional Japanese world perception, which caused protest in artistic works.

Some blamed technology for the radical metamorphosis of Japanese identity. Osamu Tesuka's technophobic manga Metropolis (1947-1949) exemplifies such a tendency. Tesuka never saw the European film Metropolis (1927), but the poster of this film inspired his manga. Through the Japanese anime Metropolis (2002), Rintaro explores some themes of the film; however, neither manga, nor anime consistently emphasize the crisis between working and upper classes as depicted in the film. The anime reconstructed Tesuka's technophobic ideology and connected to it tendentious representation of technology; however the amine emphasises a retro aesthetic rather than ideological perspective of technology, environment, and gender. In other words, if the manga implies that technology and urban environments are basic obstacles to human communication with nature, the anime ironically shows how artists in the middle of the 20th century exaggerated societal fear of technology. Importantly, the anime emphasizes that Metropolis, a technologically advanced city, is foreign to Japan with completely different politics and traditions. Therefore, the cultural rejection of technology here takes the form of transferring an undesirable element to an unnamed country. Also, two Japanese citizens, a detective and his assistant, aim to arrest and bring to Japan a criminal, a professor who constructs advanced pieces of technology. Revolutionaries in the anime fight against technology (robots) rather than for social change.

In the manga, the artificial human, Michi, is a boy, while in the anime, a female robot, Tima, is the future governor of humanity. Tima is a copy of the late daughter of one of the character; this motif is reminiscent of the android David from Artificial Intelligence: AI who was a replica of an engineer's dead son. However, the two characters have fundamental differences: David has a superhuman intensity of feelings and emotions and a mythic world perception that helps him to become the last human being on Earth; Tima decides to eliminate humanity after gaining power over it. The anime constructs an alliance between technology and gender that threatens humans; Tima appears as an apotheosis and a quintessence of technology that aims to enslave and destroy the human part of Metropolis. Possibly the author's rejection of Japanese feminised identity determined Tima's gender.

The anime does not represent natural landscapes; it visually reduces to fragments elements of nature like sky, clouds, snow, and birds. Such an absence of nature implies its idealization: a perceiver has a desire to leave Metropolis for a more harmonious environment. Frames with extended skyscrapers and industrial objects that completely hide the sky from the viewer are usual for the anime. The idealized nature and technophobic depiction of the urban environment in Japanese anime are opposite to

representations of threatening wilderness and of urban beauty and perfection found in the North American animated film Final Fantasy.

The authors of the anime visually misbalance lines and dissolve points of reference in pictures of the urban environment and pieces of technology; a perceiver finds such representations disturbing and unwelcoming. Such portrayal is an alternative to the North American depiction of urban environments perfectly balanced with elements of nature.

In Metropolis, viewers witness collapse of the urban environment and objects of technology. The anime posits this catastrophe as a happy end and attributes catharsis to it. Falling walls and pipes reveal sky, clouds, and flying white pigeons; the picture is optimistic because of its dynamics and light colours. The authors imply that the city will have a better future without technology. This concept is an alternative to the North American interpretation of technology breakdown as a tragedy that excludes any future progress, stops time, and preserves space unchanged.

Overall, Japanese outlook represents a hundred year-old dynamics between traditional views and changes, determined by modernization. Archaic world perception includes active role of the masculine, building balanced relationships with nature without significant application of technology to it. Americanisation of Japan resulted in fundamental changing of nature by technology; authentic culture and artists reacted with metaphoric depiction of overwhelming technology, visually misbalanced urban environments, vanishing or absent nature, and the feminised masculine that threatens humans.

Concept of videogames S.T.A.L.K.E.R.: Shadow of Chernobyl (2007) and S.T.A.L.K.E.R.: Clear Sky (2008) by GSC Game World originates from science fictional novel Roadside Picnic (1971) by Strugatsky brothers. In the novel, aliens visited a small area on Earth and left soon after. Since the visit, this Zone contained physical anomalies, dangerous for human health and life. Such frame of the plot helped the authors to show relationships among criminals and to implicate Roadside Picnic as critical metaphor for Soviet regime. In the videogame, anomalies resulted from nuclear plant catastrophe in Chernobyl in 1986. Also, the game invented mutated animals and humans who live in the Zone.

For the scope of this article, relationships between nature and technology in S.T.A.L.K.E.R. are of the primary interest. The authors of the videogame used digital photographs, taken around real Chernobyl nuclear plant. It is an abandoned thirteen-kilometer territory with cars, buildings, and other pieces of technology. Radiation enlarged size of grass, fruits, and mushrooms; ironically, this phenomenon resonates with Ukrainian traditional interpretation of natural powers.

Archaeological findings report five thousand-year-old agricultural societies on territories of contemporary Ukraine. Until the beginning of the

20th century, 80 % of the population of Ukraine was rural; before 1917, this country, with its soils and agricultural production was an influential player on the Western European agricultural markets. Therefore, throughout the history, all ethnic groups who lived on the territory of contemporary Ukraine depended on its nature. In the ancient times, this dependence attributed omnipotence to the nature and formed mythological understanding of natural powers. Ancient agricultural cults had strong matriarchal tendencies and beliefs in Mother Nature, including cultural attributing of anthropomorphic characteristics to natural environments. The beliefs construct parallels between fertility of women and earth; infant dependence on the mother and human dependence on uncanny nature, and resulted from this similarity belief in mythic omnipotence, primacy, and prevalence of nature over other phenomena, including technology.

The videogame unveils the remnants of Ukrainian mythic beliefs. In many shots from Chernobyl area nature dominates, changes and utilizes pieces of technology while transforming them into insignificant parts of its own landscape. A stand for high-tension power lines, lost among three pine trees, is a typical image in the game. Lines are not 'live' after the breakdown, which makes natural objects more powerful. Such strength differs from North American dangers and Japanese idealization of nature. One more characteristic image in the game is assimilated by natural landscape car. The game depicts such a process as usual, not as a catastrophe, like the North American film, or as a catharsis, like Japanese anime. Forests, meadows, sunrise, and other elements of nature visually balance or dominate artificial constructions in the game. Unlike North American harmony between the urban and an element of nature, or Japanese dissonant urban environment, nature in the game is equal to technology or prevalent, implying that nature will last longer than pieces of technology. This is an alternative to North American image of frozen time after the breakdown of technology. Prevalent nature forms another group of typical depictions in the game. For instance, an image of an abandoned excavator near the abyss, and visually high line of horizon show vulnerability of technology, and power of nature; overall, Ukrainian traditional perception of nature and of the feminine subordinates technology.

The three cultures formed their historically determined interpretations of and connections among technology, environment, and gender. These specifics of world perception contribute to global dynamics of cultural exchange, where each culture interprets universal themes within its traditional views. Globally, North American and Japanese attention to the masculine balance Ukrainian traditional emphasizing the feminine; visions of technology range from North American ideological cornerstone of human empowering, through Japanese factor of human vulnerability, to Ukrainian insignificance of technology on the background of nature. Global perspective

of human environment circulate among North American positive imaging of symbiosis between urban city and nature, Japanese seeing of urban environment as negative substitute for nature, and Ukrainian emphasizing nature as ultimate human environment.

Notes

[1]O Cheypesh, 'Contemporary Tendencies of Globalisation', The International Journal of the Humanities, vol. 5, 9, 2007, pp. 235-242.
[2] B E Carroll, 'Masculinity and U.S. History', in B E Carroll (ed), American Masculinities, A Historical Encyclopaedia, Thousand Oaks, Sage Publications, 2003, p. 2.
[3] T Tatsumi, Full Metal Apache, Transactions between Cyberpunk Japan and Avant-Pop America, Durham, Duke University Press, 2006, p. 9.
[4] Ibid, p. 78.
[5] Ibid, p. 9.
[6] Ibid, p. 3.
[7] Ibid, p. 6.
[8] Ibid, p. 16-17.

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PART II

Time and Place

Memonautica:
Online Representations of the Yugoslav Past

Martin Pogačar

Abstract
The author presents the influence of the internet on how we think about the past, and how the past is remembered and re-presented. The paper discusses the main considerations regarding the narrative potential of the internet. Its specifics, both in terms of technology and of content, necessarily influence the ways reality (past and present) is represented, conveyed and understood - the processes of making sense of the world(s) around us are fundamentally defined by it. Although the new medium is to a significant extent revolutionary, it in many ways also presents a continuation with the old media, their rhetorical and discursive devices - it uses image, sound and text in order to convey/construct the message. Yet, in the cyberworld, these processes and messages are uniquely combined and fused, rather than multiplied. More importantly, this fusion of various elements and contents (sound-image-text) in different contexts results in detemporalisation and deterritorialisation of places, times, events and people. The question is how this new narratives affect our understanding of the past and what are the implication for national and global histories? In particular, the author is interested in online representations of the former Yugoslavia, its past and history of popular culture in new media environments.

Key Words: Memory, History, Internet, Representations of the Past, Visual Culture.

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Life is irreversible.
It will be staged in a new theatre.
In a different way, with different actors.
But the ultimate happiness.
Is to fold its magic carpet.
And make the ornament of the present.
Match the pattern of the past…[1]

New media in general and the internet in particular figure as media of unprecedented significance in the quotidian. Their specifics, in terms of

technology and content, necessarily influence the ways reality (past and present) is represented, conveyed and understood - they fundamentally define the processes of making sense of the world(s) around us. And, as Lev Manovich puts it, the principles of 'operation' of new media translate into social and cultural patterns.[2]

Although new media are certainly revolutionary, they in many respects and to a significant extent also present a continuation with the *old media*, their rhetorical and discursive devices - they use image, sound and text in order to convey/construct the message and often emulate old media, mostly in design of the interface and organisation of content (e.g. online newspapers). Yet, in the cyberworld, the processes and messages are uniquely combined and fused. More importantly, this fusion of various elements and contents (sound-image-text) in different contexts results in detemporalisation and deterritorialisation of places, times, and events. I use/adjust Arjun Appadurai's concept of deterritorialisation to denote uprooting of representations of the past from 'original' environment via media appropriation into different spatial settings; analogically, detemporalisation is used to refer to representations/images of events, places, taken out of the original contexts and repositioned in new/different temporal settings. The fragmented bits are arbitrarily or intentionally juxtaposed thus providing a set of possible paths for new narratives about the past to emerge.

How the new media affect our ways of understanding reality? How new media 'infect' our representing and remembering the past? What kind of interpretations and narrativizations of the past emerge? How the newly emerging narratives affect our understanding of the past? What are the implications for national and transnational histories? These are some of the questions that fuel this discussion in search of an invariably incomplete answer.

Only accessible through traces, the past can be deciphered only fragmentarily and incompletely. On the level of socio-cultural effect it does not really matter if it is dealt with scientifically or non-scientifically. As much as scientific accounts (archaeology and historiography) are credible for their consistency in methodology, conduct of research and reliance on 'factual data,' they are, in the end, 'still mere' fictionalisations of the past in that they interpret sources to provide a narrative/story. This, however, makes them no less important for our understanding of the past and present. On the contrary, these accounts figure as important providers of collective, national, group identity bases that secure a commonly recognisable socio-cultural-historical environment within which a collectivity can function. Non-scientific accounts (literature, theatre, painting, architecture, cinema, music), on the other hand, through the use of various literary representational devices often employ historical sources and combine them into new narratives, which may be factually inaccurate yet convincing in re-creating the Zeitgeist of an

era (think, for instance, of the ancient Greek mythology). Moreover, these non-historical accounts are often highly infused with mobilisational potential and tend to agitate the masses much more radically. This does not, of course, imply that scientific accounts are taken any less seriously; rather it encourages the non-scientific ones to be taken more seriously.

The representing of information and contents in various formats made possible by the new media result in rather different principles of mediatising reality, encoding it, transmitting it, yielding access to it and so on. True, the computer screen may offer a fixed frame and a familiar interface (rewind/forward buttons, mute etc.), but within it one can have many 'windows' (and windows within windows) opened (think of Aby Warburg's *Mnemosyne*), multiple applications running simultaneously in the background, and what is most important for the purposes of this paper, one can simultaneously watch a video-clip, listen to a song and read a text. Additionally, the presupposition of interactivity - the 'collaboration between the reader [the user] and the text in the production of meaning'[3] - and the very principles of interactivity in internet operation (affecting the 'original,' influencing the creation/development of a narrative by clicking through various predetermined options, download, copy and paste, navigation) allow these content-elements to be merged by the viewer into a new file or a (micro) narrative. The copy-pasted bits can be merged into entirely new compositions, essentially altering the 'original' material during the process and consequentially affecting the interpretation. Thus, as Manovich states for digital images, 'an image is something we expect to enter rather than to stay on its surface.'[4] It is from this constellation that stems the fragmentation-detemporalisation-deterritorialisation triangle regarding the representations of the past online.

The representations of the (in this case Yugoslav) past online can be roughly divided into three groups: *official* (state-sponsored, such as online museums, memorials, databases of historical texts; the Museum of History of Yugoslavia,[5] Slovenian Museum of Contemporary History;[6] Historical Museum of Bosnia-Herzegovina.[7] *Unofficial* online representations (private initiative or semi-sponsored websites), such as Jugomuzej,[8] Post-Yu Info[9] or Lexicon of Yu-Mythology.[10] And the third group is what I call '*guerrilla history*,' i.e. personal, 'underground,' online historical statements, found on sites such as Youtube and/or embedded on various websites,[11] online communities (groups on Facebook) or various forums.

I will only briefly discuss the first two and devote some more attention to the third one, which I also find the most intriguing. In the *official* group fits for instance a virtual exhibition hosted by the Slovenian Museum of Contemporary History, *The Hitler's Long Shadow*.[12] The virtual exhibition at the Slovenian museum exclusively uses photography and text and takes no recourse to moving images or sound. The site is divided into horizontal (main

topics) and vertical (sub-topics) menus; each 'click' leads to a concise description of a topic and a couple of photos. Despite the very interesting topic and the potential of the medium, this virtual exhibition fails to incorporate sound and movement and is still very much confined to the laws of classic museum constellations.[13] Usually, the state sponsored sites in the former Yugoslavia are much less advanced than comparable websites in the west; they are generally not too well designed and do not offer much interactivity and multimedia, as opposed to the non-sponsored, private initiative websites.

Unofficial enterprises, such as Post-Yu Info, offer experience that is more interesting. This site is conceived as an upgrade to the online Lexicon of Yu-Mythology and is at the same time a condensation of the printed edition of the *Lexicon*, a project initiated by a Croatian writer, Dubravka Ugrešić. As befits a proper lexicon, it features alphabetically arranged entries of various popular cultural items. Letters of the alphabet are designed to resemble logo design of certain popular Yugoslav products and brands etc. Thus for letter O stands the logo for the 1984 Sarajevo Olympics and for V the logo of cooking additive, Vegeta. Lexicon entries are written in an ironic tone comprising entries from all over Yugoslav popular culture, ranging from famous musicians, newly composed folk music, the fizzy drink Cockta, the popular Yugoslav-made car etc. Each description is accompanied by a photo. The site, however, still leaves aside film and music as means to construct and convey the story.

Fugitive pieces of reality are sometimes quite randomly reassembled and at that taken from their original temporal (detemporalisation - displaced temporally) and spatial (deterritorialisation - displaced spatially) environment,[14] but organised according to a new logic. In the above examples this is quite obvious. As opposed to personal initiative of guerrilla history the above representations of the past do not tend to manipulate their sources (be it textual, audio or visual) in terms of modifying their content, although on the level of interpretive effect of a particular juxtaposition and the emerging narrative, the ideological potential cannot be easily disguised. *Guerrilla history*, on the other hand, a statement on the level of a particular internet user is quite different: for instance, one can find a photo on the web, download it, edit it (change hue, saturation, ad words etc.) along with some other photos (or film inserts) into a photo-film to the sound of music and post it online.

Youtube offers some nice examples that qualify as guerrilla history. Search term 'Jugoslavija,' for instance, yields 2110 results, and following the link of 'Tatu - Jugoslavija' to Related Items section, I came upon a four and something minutes long text-audio-visual statement hosted by dugmicMala. To the song 'Jugoslavijo' by Bojan Rajović, numerous photos are added interspersed with silent-film-like captions. The video opens with:

Yugoslavia… What happened? …It disintegrated. In this first 'chapter,' opening with a map of Yugoslavia, a series of photos of Josip Broz Tito are arranged (Tito's wartime photo; with famous world politicians and celebrities, addressing the people, Tito on the cover of Life magazine etc.), introduced by the caption, *Magnificent President, a fighter, communist, fisherman, and creator of freedom*. The next chapter is titled *After Tito* followed by a section about 1980, the year of Tito's death. It includes photos of his last farewell in Yugoslav republics capitals. The chapter on the 1991 disintegration of the country presents full-size images of newly-established countries' flags, interspersed with the caption, *Independence, no warrant for peace*. Pictures of war in Bosnia, concentration camps, cemeteries… *Did we really need this?* Photographic answer (cemeteries, ruins) to the textual question. In the end, *Only memories remain [...] of the magnificent country*. A photo of a 1 Dinar coin from 1985, a photo of Tito's statue, a digitalised image containing Tito's profile along with digitally edited/stylised Yugoslav flag. The video ends with the lines: *In memory of our Yuga, we could have achieved so much with brotherhood and unity. Comrade Tito, now that you're gone, nothing is as it used to be. We all live in exile… Ex-Yu*.

This guerrilla history statement features text, still photos and sound, and provides an overtly nostalgic account. The elements of text, sound and vision work as a whole and each carries its own messages. The text (captions) plays the role of providing temporal structure of Yugoslav past: clearly situated in the present, the 'guerrilla historian' departs to present her vision of Yugoslav past, by stating at the beginning the collapse of the state, presenting its life-long leader, the country's collapse and emergence of new states and nostalgia for the past and the future that never were to be. The text itself is extremely emotional and especially the last line (exile…Ex-Yu) figures as a very strong personal statement.[15] It extrapolates the idea of geographical emigration to include emigration in time, which for a nostalgic mind may be just as painful. On the level of visual, the photos are arranged rather arbitrarily disregarding the chronological aspect of history (linearity of time), juxtaposing wartime photos with the post-WWII ones. Although following a rough chronological order, fragments from different historical times and places are put together quite randomly (although with a possible agenda), which necessitates seeing the presented historical period as uprooted form the historical context and largely existing in its own symbolic universe. Music figures as an important feeling-enhancer. Although not a hugely popular hit in the lands of the former Yugoslavia, it works in a way to merge/glue the images into a new whole. Within the songscapes, an entire history of the country is depicted.

There are many other similar examples that use once popular Yugoslav songs and photos found on the internet in great numbers.[16] Despite the internet being a boundless resource, it nevertheless has its limits: certain

Yugoslavia related images are used on different websites and in different statements time and again; it may be because people find them appealing, or because they were popularised by the internet use or often used in history textbooks and hence see their own story behind them. The main reason probably lies in the 'jukebox metaphor,'[17] i.e. there is only that many photos (or other images, songs) available and some of them gain popularity and recognisability through repetitive publishing/viewing.

Speaking about the past today it seems that it is not a foreign country where one can cruise the memorial landscape and re-visit relics at a later time, knowing they will still 'inhabit' certain coordinates. Rather, it is a fairly rough sea that washes ashore pictures, videos, sounds, bits of texts, which are in the next instance washed away and submerged again. Navigating the sea of bygones, chunks of past surface from the billowing waters, submerge again, and re-surface at a distant place and a distant time; repositioned, remorphed. And the one who encounters these bits of past places and passed times seems very much akin to a wave rider, net surfer if you will, navigating their way through the floating 'debris' of the past and present.

Navigating the internet is, as implied in the above paragraph, characterised by essential changeability - it is next to impossible to return to the same place. Either a webpage is updated (as in online newspapers) and the older version no longer available, not available (Error 404 - File not found), its URL lost and forgotten in masses of daily emerging sites. The sheer number and size of information poses problems regarding storing and archiving information, and of course retrieving it. The archive, as Arjun Appadurai notes, 'is usually sacralised as the site of the past of some sort of cultural collectivity (often the nation), which is seen as sacred by definition.'[18] Yet, as the (digital) archive becomes elusive and inherently unstable, the effects this has on representing and imagining the past are not easily discernible. The uncertainty regarding the withering access to the relatively fixed accounts and narratives is at this stage surely unsettling. Moreover, much of what is recorded and preserved may also be lost to inefficient (or poor command of) retrieval procedures. Additionally, 'the archive is gradually freed of the orbit of the state and its official networks […] [and it] returns to its more general status of being a deliberate site for the production of anticipated memories by intentional communities.[19] In combination with the uprooting effects of globalisation the change of archive status and access, and its influence on 'master narratives' may be one of the reasons contributing to the growing ethno-insecurity and nationalisms in Europe.

What the new media do with/to the representations of the past is, as already mentioned, that they administer utter detemporalisation and deterritorialisation. The past-bits, remnants or traces of the past, the fragmented pieces uprooted from its 'original' spatio-temporal environment

are remediatised[20] and reassembled, resorted, juxtaposed and fused into new constellations. These constellations often tend to obstruct the linearity of time/narrative/representation and rather conflate it. Thus the past attains the hue of everlasting presence/present. And, despite the seeming unimportance of the past in the era of constant change, the ghosts of the past nevertheless tenaciously persist, they inhabit, invade and significantly redefine the mediascapes of the present: on the internet, in cinema, music, references in advertising, retro-chic etc. The past on the internet, much like the present, however, is present in such abundance that is becoming increasingly difficult to navigate.

This results in, on the one hand, decreasing recognisability and significance of 'master narratives,' in their weakened fixity and problematized unquestionabilty and ever-greater difficulties in finding compliant audiences. On the other hand, increasing publishability of people's highly personal, intimate experiences and opinions on the internet is reaching significant numbers of people beyond borders, age limits and confines of socially determined roles. Collectivities may be formed based on shared interest rather than shared ethnogenesis, i.e. 'where natural social collectivities build connectivity out of memory, these virtual communities build memory out of connectivity.'[21] In this respect, Chris Anderson's notion Long Tail applies to this situation: in enormous choice, significant number of people will find a marginal enough website/topic/belief to make it significant/influential enough to exert certain/significant impact on wider socio-cultural processes and phenomena,[22] significant number of people will produce and live by beliefs and memories whose eloquence can not go unnoticed.

In the era of globalisation and digitisation of society, micro narratives are gaining importance and audiences. This poses questions that concern the very idea and notion of national identity, national history and nation, and proposes to critically consider and make informed selection among the increasing amount of information flooding the spheres of private and public lives. Perhaps Manovich is right in stating that the age of new media and the age of the internet are much more about information than about narrative and that 'today we have too much information and too few narratives that can tie it all together.'[23] But the mythic (or gossiping) condition of human existence incessantly produces narratives out of seemingly most negligible bits of information. The difference with regard to the past is that new narratives may no longer be only territorially based.

Cultural symbols and their historically changing media matter and play an important role in the formation of identities, and the past is always reconstructed according to the needs of the present. The question is how to fold the magic carpet in order to make the fragmented ornaments of the present match the fragmented patterns of the past.

Notes

[1] From Vladimir Nabokov's 'Paris Poem' as quoted in V Pelevin, *The Sacred Book of the Werewolf*, Faber and Faber, London, 2008, p. 49.
[2] Choosing from an array of identities and randomly swapping them corresponds to the philosophy of ready-to-use models coming with computer programmes, or even better, avatars in online virtual worlds. See L Manovich, *The Language of New Media*, MIT Press, Cambridge, London, 2001, p. 61.
[3] M L Ryan, *Narrative as Virtual Reality*, John Hopkins University Press, Baltimore and London, 2001, p. 16.
[4] Manovich, p. 180.
[5] Muzej Istorije Jugoslavije, Link: <www.muzejistorijejugoslavije.org.yu>.
[6] Muzej Novejše Zgodovine, Link: <www.muzej-nz.si>.
[7] Historijski Muzej, Link: <http://historijski.mu.zej.ba>.
[8] Yugomuzej, Link: <www.yugomuzej.com>.
[9] Post-Yu, Link: <www.postyu.info>.
[10] Leksikon Yu Mitologije, Link: <www.leksikon-yu-mitologije.net>.
[11] See for instance:
<www.jugoslavija24.com/index.php?option= com_seyret&Itemid=26>
[12] Hitlerjeva Dolga Senca, <www.muzej-nz.si/hitlerjeva_dolga_senca.html>.
[13] See, for instance, the German project, The Invisible Shapes of Things, Link:<http://www.artcom.de/index.php?Option=com_acprojects&page=6&id=26&Itemid=115&details=0&lang=de>.
[14] I am deriving the notion 'detemporalisation' from Arjun Appadurai's notion 'deterritorialisation' (see A Appadurai, *Modernity at Large*, University of Minnesota Press, Minneapolis, 1996).
[15] See dugmicMala, 'Jugoslavija', Link:
<www.youtube.com/watch?v=M7SorJzdBtc&feature=related>. She states on her Youtube Channel <www.youtube.com/user/dugmicMala>, 'I'm living the dream of Yugoslavia, I'm living in a world where it is not important who you are, how you're called and what religion you belong to. You can take me everything, but not my idea of a better world. Fascists will always happen, but in my world, they have no access. Stop the silence and speak up. We need to be brave in a world full of corruption and hate! Maybe we can't change the world, but we can change our attitude!'
[16] On Youtube you can find a Star Wars scene dubbed with a very popular song by Zdravko Čolić, *Comrade Tito We Swear our Oath to You* Link: <www.youtube.com/watch?v=y-irP4AAcyo>, accompanied by elendil77's comment: 'It is not a bad analogy - Alliance - Partisans, Fascists - Empire. All in all, I believe that's what Lucas intended! Just look at the uniforms. This is another example of disregarding the order of space and time and

combining two completely different narratives and establishing analogy between them.
[17] With the Jukebox metaphor I imply the situation where one is allowed to chose from a predetermined selection of items. The catch is that the available selection is often taken as an all-encompassing one, i.e. the subject is quickly ready to accept the given set of choices.
[18] A Appadurai, 'Archive and Aspiration' in *Information is Alive*, J Brouwer & A Mulder (eds), V2_Publishing/NAI Publishers, Rotterdam, 2003, p. 15.
[19] Ibid., 17.
[20] See Bolter and Grusin, *Remediation. Understanding New Media*, MIT Press, Cambridge, London, 2000, pp. 45-47.
[21] Appadurai, 'Archive and Aspiration', p. 17.
[22] See C Anderson, 'The Long Tail', *Wired*, viewed on 15 June 2008, Link: <www.wired.com/wired/archive/12.10/tail.html>.
[23] Manovich, p. 217.

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Part III

Avatars-Bodies & Identity

Practical Identity in Cyberspace

Mark Grover

Abstract
Christine Korsgaard in *The Sources of Normativity* provides an account of practical identity that can be applied to cases of online identity. Korsgaard's theory is fundamentally Kantian and places great emphasis on the concept of autonomy and understanding ourselves as agents. This paper follows Korsgaard's theory up to the point of moral obligations and sheds light on what it means to have an online practical identity. It is argued that all instantiations of one's online practical identities are contingent on a unified notion of one's greater practical identity that resides outside of cyberspace because that is where self-consciousness resides.

Key Words: Korsgaard, Identity, MUDs, Kant, Cyberspace.

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Christine Korsgaard, following in the Kantian tradition, presents a theory of practical identity in an attempt to answer the normative question. The normative question concerns what justifies the claims morality makes on us. This question is not about explaining moral behavior from a third person theoretical perspective but, is rather, a first person account of why moral agents must do, for them, what morality dictates. This question she claims must not only be answerable from the first person but also must make an appeal to our sense of identity.[1]

Practical identity, in this theory, arises from self-consciousness. The structure of our reflective minds enables us to have deliberated reasons for actions. It is by having a thought out reason that we are able to express our practical identities, and conversely it is by rejecting that which your practical identity forbids that we get obligations. The source of obligation is autonomy because we are forced to identify with principles or laws that guide our lives. These principles can be found in the intrinsically normative structure of maxims for actions. It is this sense of identity that will be explored and examined in the context of cyberspace. Korsgaard's argument is followed up to a source of normativity, as found in the structure of maxims for action, but stops short of exploring moral obligations.

This paper explores online practical identity in a MUD environment however this theory is applicable to other environments within cyberspace. MUD is an acronym for Multi-User Dungeon, Dimension, Domain, and

refers primarily to text based virtual worlds. There is simplicity to MUDs, based on their close relationship to language, which allows for a great deal of freedom with regard to one's practical identity and the kinds of actions a persona can carry out. A specific instantiation of a consensual MUD, set in a modern fantasy setting, is assumed for the purpose of examples in this paper.

Korsgaard's theory is a first person phenomenological account of consciousness, the mind, identity, and obligations. It begins with perceptions and desires. In terms of a MUD this is a lot like sitting at the title screen. You see the name of the MUD, perhaps its web address, and there may even be some information about theme and policy. At this point you are still in RL (real life), and this shows the border to cyberspace.

As mentioned, self-consciousness for humans on this theory is self-reflective.[2] This is to say the mind is not internally luminous or directly accessible with any kind of certainty. This reflection does however allow oneself to turn their attention toward their perceptions and desires. It is in this way that our mental activities are different than those of most other animals whose perceptions are their beliefs and desires their will.[3] To use the MUD analogy this is like creating an account and logging on; you type in your user name and password and in that moment you have created a self in cyberspace. In creating a self in cyberspace that self can then examine its mental activities, however this examination is more like a reflection of a reflection of mental activities as there is only one self-consciousness as found in the kind of animal with this mind.

A problem arises from this ability to question our perceptions and desires. Korsgaard calls this the 'problem of the normative'.[4] Because we can always call into question the content of our perceptions and desires a regress occurs whereby we cannot settle on an answer to the question 'shall I act?' Imagine yourself stuck at the introduction screen continuously questioning your perceptions and desires unable to move forward. You examine the area thoroughly but keep wondering if your perceptions can be believed and query every desire that would commit you to an action. A reason is needed to stop the regress and allow you to commit to a course of action and move on.

'Reason', according to Korsgaard means 'reflective success'.[5] To have a reason to act is to endorse a desire or impulse upon reflection. At this point the regress problem remains, however it has shifted from questioning perceptions and desires to questioning reasons for action. In reference to the MUD example this would be like having decided that you want to act but not knowing what to do. Korsgaard follows Kant with regard to this problem, albeit with a slight but important modification, and appeals to his categorical imperative.

Immanuel Kant addresses this problem of continually questioning ones reasons in terms of freedom and the idea of a free will. Freewill, for Kant, is a rational causality that is effective and not determined by any alien

cause including one's desires and inclinations.[6] The problem with freewill is that because it is a causality it must have a law but, since it is free it must somehow be its own law. The first formulation of the categorical imperative, the Formula of Universal Law, solves this problem by stipulating that we act only on a maxim that could be willed as a law. This is to say when we decide to act upon an impulse we must create a maxim and that process necessarily makes it a law. Korsgaard makes a distinction between the categorical imperative and the moral law because the Formulation of Universal Law, for her, needs to explain how those who do not identify themselves as members in the Kingdom of Ends, such as wantons and egoists, can in fact have reasons for their actions which yield real obligations. This is a thorny issue with regard to moral obligations however in the context of ordinary obligations is less contentious. What is important for both Korsgaard and Kant is that reasons can be settled on by willing a law that can be understood in the form of a maxim.

The way in which a person identifies with their reasons for action determines their practical identity. The reflective structure of the mind forces us to have a self-conception because nothing more direct can be obtained. From the third person one's self-conception can be explained by identifying desires, giving them weight, and declaring winners and losers. From the inside however, as Korsgaard notes, 'that isn't the way it is *for you* when you deliberate.'[7] When deliberating we feel as though there is something personal that is beyond competing desires, something that is *you* that chooses the impulses you act, and do not act, upon. You are a law unto yourself in just this way. You make decisions based upon principles you identify as expressively your own.

This is a practical conception of identity because it is understood not as a scientific fact but rather a description of how you value yourself. How you value yourself is shown by how you choose among competing desires and beliefs to best reflect the life you decide to lead. Korsgaard defines practical identity as:

> a complex matter and for the average person there will be a jumble of such conceptions. You are a human being, a woman or a man, an adherent of a certain religion, a member of an ethnic group, a member of a certain profession, someone's lover, and so on. And all of these identities give rise to reasons and obligations. Your reasons express your identity, your nature; your obligations spring from what that identity forbids.[8]

As a result, it can be seen how one's practical identity is based upon their endorsed reasons for action.

When choosing your practical identity on MUD, or more generally in cyberspace, there is a special sense in which you can choose aspects of your identity not available, or perhaps very difficult to achieve, in RL. These special characteristics could be such things as life form, gender, age, ethnicity, and so on. Considering our MUD example let us say that having picked your gender, age, ethnicity, and appearance, you now get to select minor supernatural powers from a predetermined list. The introduction of supernatural forces here is to show that some actions in cyberspace are possible that are impossible in RL. Out of the options you decide on mystical charm and the ability to levitate. With these traits in place you can now begin to decide what attitude your persona's practical identity is going to take with regard to your environment, yourself, and others.

You may decide you want to be a cool, calm, and collected type. You might also decide to explore the darker side of your nature and opt to be callously ambitious. You settle on a world view that sees all other things and persons as simply means to your ends. You wonder why this persona is the way that it is and develop an elaborate life history that leads to the present moment. You now have a persona ready to do things. You know what you have reason to do, because those reasons identify with your self-conception, but you also know what you cannot do. You cannot do that which your practical identity rejects, and these are your obligations.

Obligation arises from what your practical identity forbids. Korsgaard suggests that the relationship between identity and obligation can be seen in common phrases such as 'I couldn't live with myself if I did that' or 'just who do you think you are?'[9] This relationship, whether self-imposed or imposed upon others, is found by asking what you cannot do or what others ought not to do. Take the persona from the MUD for example, considering the callous nature of this persona it can be seen how there would be an obligation not to be kind or compassionate. Suppose you insincerely befriend a child persona controlled by another user. If asked why your act of purchasing a candy for the child was not compassionate it would be easy to answer, 'Because I would not do that out of compassion. I was simply trying to gain confidence in a devious manner.' In this way it can be seen that when one does not violate their obligations they are being true to the reasons they have for their practical identity.

Integrity is important to the relationship between identity and obligation. Integrity means oneness or unity, and we use the term for those who live up to their own standards.[10] To violate an obligation is to lose integrity and therefore one's practical identity. When these obligations are violated a person can no longer view themselves, unless they are extremely self-deceptive, under the rubric they once did. In some cases a person may rather be dead than violate their strongest obligations. Envisage your callous persona in the MUD scheming all over the city, setting up plans, and plans

within plans. Part of what makes this character an integral whole is a commitment to achieving particularly selfish ends by any means possible. If you suddenly decide to give all your wealth to charity then that persona's integrity is compromised. The standards which make it callous and selfish have been violated. When a person has integrity they commit to their reasons for their practical identity as well as the ensuing obligations.

There are cases however in which this notion of obligation is challenged. Korsgaard observes two complexities which arise from this relationship between identity and obligation. First, some parts of our identities are easily shed, and in some cases when obligations conflict ought to be shed. Her example for this complexity is 'a good soldier obeys orders, but a good human being doesn't massacre the innocent.'[11] In the MUD example this could be stated as, 'A callous person does not care what befalls others, but a good schemer does not want to lose a potential victim.' This complication is not that troublesome as we are often, throughout our lives, forced to balance various aspect of our practical identity. Second, and more problematic, is the fact that our practical identities can take a few knocks and remain intact.[12] Picture the MUD persona in a one time moment of weakness caving to the child's innocence and doing something truly compassionate. How can this character continue to be considered callous? What if it happens more than once? Korsgaard's solution to this problem is to invoke a 'kind of second tier integrity' as a sort of commitment to keeping the times we make exceptions of ourselves not get out of hand.[13] If a person makes too many exceptions they may very well cross a threshold and damage their integrity such that they lose their practical identity altogether. Rather than create problems these complexities reveal insight into the nature and resilience of our practical identities.

Autonomy plays an important role for Korsgaard as it is the source of obligation. Autonomy is the source of obligation because the reflective structure of human consciousness necessitates that you identify with laws or principles that govern the actions you choose to endorse. By itself the reflective structure of consciousness does not have power over us; it only shows the relation we have with ourselves by way of self-conception. Authority is needed, along with power, to enable autonomous action. It is this authority that is the source of obligation. Hence, Korsgaard defines autonomy as: 'commanding yourself to do what you think it would be a good idea to do, but that in turn depends on who think you are.'[14] The source of obligation can be identified in the concept of autonomy because we are forced to act based upon reasons that are determined by our sense of who we are.

What does it mean to be autonomous in a MUD or cyberspace? It means doing what you have good reason to do considering your practical identity. Put yourself in the shoes of the callous scheming character. Being selfish; you will want to do things for your own self-interest. You may take

risks such as infringing on the city's power broker's resources in order to increase your wealth. As an autonomous character your actions are determined by your ability to make laws and act on them so long as it is a good idea in relation to your sense of practical identity.

The form of our maxims is important for determining that we are acting on a good idea or law. Furthermore, it is important because it is the means by which the thinking self can assure that it is governing well. According to Korsgaard a good maxim is an '*intrinsically normative entity*'.[15]

Every maxim has two parts: actions and ends. A maxim is good, then, when the action and the purpose are related 'so that the maxim can be willed as a law.'[16] This is the answer to how we ensure that the laws made by the Formula of Universal Law have authority. A maxim is an intrinsically normative entity which binds one's actions to their sense of identity and the resulting obligation.

In the MUD example, suppose your persona's greed has gotten you into trouble with the powers that be. You have been summoned to a trial where you will be judged and possibly punished. Given your social graces you think your chances of survival would be greater by going to the meeting so you form the maxim: *I will go to the meeting for the purpose of saving my character*. When this maxim is inspected in light of your identity you find that it can be willed as a law, and furthermore that it is a good idea, therefore you act on it. As a result the normativity that allows us to be autonomous is constitutively found in our maxims as it enables us to do what we want to do.

In cyberspace it seems that some maxims may not be willed even though they are entirely consistent with their persona's practical identity. These are maxims that an agent's practical identity, of which the character is just an aspect, could not endorse. In the border between cyberspace and RL the latter has precedence because that is where the original self-consciousness resides.

Imagine your MUD persona gets to the trial and you are found guilty and sentenced to a near unthinkable punishment, however, once performed you will be free to go. You are ordered to perform completely sick and perverted acts on the child you insincerely befriended. The child's user has also consented to all and any forthcoming events. Given the callous nature of your persona, assuming a case has been made regarding its evilness, it is entirely likely that acts of torture and pedophilia could be endorsed, but for most people sitting in the chair this would be a problem. It would be a problem because their greater practical identity would forbid them from endorsing such actions. This reinforces the point that from the first person phenomenological account, online practical identity is subordinate to a unified notion of identity that encapsulates all the instantiations of one's practical identities.

What has yet to be mentioned but is important for understanding how it is we come to have a conception of the kind of life we deem worth living is value. This normative aspect of one's practical identity concerns beings which find themselves in a position of reflective consciousness deliberating on which ends to choose, or in other words deciding on what to consider as valuable.

Value, from this first person perspective is rooted in the reflective structure of the mind. The source of value is found in rational nature because without a mind capable of reflection, even in a world of things, ends could not be chosen as worth acting upon.[17] That is why a bee cannot value a flower like a human can; it does not have a mind capable of generating value. Notice this upshot to a theory of practical identity insofar as it can explain how value is generated as opposed to simply what is valued. Notice also that similar to how one's human identity stands behind all aspects of one's practical identity all value can be traced to oneself as the source of value. It is this sense of value that Korsgaard uses to argue for moral obligations based on the value of humanity.[18] Without delving into issues of moral obligations it can be seen how Korsgaard's theory of practical identity can help understand how it is we conceive of ourselves in cyberspace and how we come to find value within that electronic space.

In conclusion, Christine Korsgaard's theory of practical identity provides some resources for exploring online identity from the perspective of agency. Her theory provides a rich phenomenological description of what it feels like to be an agent, or more particularly what it feels like to be an agent in cyberspace. The strength of this view is its solution to the problem of the normative in which the solution is found in the concept of autonomy.

Notes

[1] C M Korsgaard, *The Sources of Normativity*, Cambridge University Press, Cambridge, 1994, p. 16-17.
[2] ibid., p. 92.
[3] ibid., p. 93.
[4] ibid., p. 93.
[5] ibid., p. 97.
[6] ibid., p. 97.
[7] ibid., p. 100.
[8] ibid., p. 101.
[9] ibid., p. 101.
[10] ibid., p. 101-102.
[11] ibid., p. 102.
[12] Ibid., p. 102.

[13] ibid., p. 103.
[14] ibid., p. 107.
[15] ibid., p. 108.
[16] ibid., p. 108.
[17] ibid., p. 116.
[18] ibid., p. 122.

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The Interpolated Cyborg: Theorising the Avatar in *Haunting Ground*

Ewan Kirkland

Abstract
This paper explores the ambivalent nature of the avatar, and the avatar/player relationship as typifying key issues concerning videogame agency, textuality and interactivity. Space, architecture, aesthetics and adversaries are organised around the avatar body that frequently constitutes the apex of player activity. The locust of player interaction, avatars frequently embody the tension between freedom and structure which typifies videogaming. Two ways of theorising the avatar are contrasted, both interrogating ways in which the avatar represents the player on the screen. Firstly, the player/avatar relationship might be considered a cyborgian one. The avatar constitutes a virtual extension of the player's body, suggestive of freedom from physical, ideological and bodily restrictions. Conversely, the avatar might represent a form of interpolation, hailing the player through the necessity of interactive engagement. Player autonomy is subsequently restricted according to the bodily limitations of the avatar, the structure of the game interface, and the requirements of game rules, objectives, rewards and punishments. This paper concludes with a consideration of Capcom's *Haunting Ground*, a survival horror game which intertextually engages with the nature of the videogame avatar.

Key Words: Agency, Avatar, Cyborg, Haunting Ground, Interpolation, Player, Survival Horror, Videogame.

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This paper explores the ambivalent nature of the avatar, and the avatar/player relationship as typifying key issues concerning videogame agency, textuality and interactivity. My concern is primarily with third-person avatars, those which can be seen on the screen, rather than avatars in first person videogames, where the game world is viewed from the perspective of an otherwise unseen agent. Such avatars are generally preferred within the survival horror videogames in which I am most interested.

The avatar is a figure central to the videogame experience. Space, architecture, aesthetics and adversaries are organised around the avatar body,

which frequently constitutes the apex of player activity. Players form a physical as well as virtual bond with the avatar. Sue Morris,[1] Martti Lahti,[2] Sheila C. Murphy,[3] Jon Dovey and Helen Kennedy[4] all note gamers' tendency towards 'sympathetic movement' where players shift in response to in-game action, the movement of their bodies reflecting the movement or desired movement of the avatar on the screen. Indicative of the blurring of bodily boundaries entailed in videogame play, when players fail, they typically say 'I died' or 'I got killed', rather than 'Lara Croft died' or 'My actions resulted in Lara Croft's death.' Game space is organised around the figure of the avatar, the virtual camera following its movements, forever shifting to keep it centre frame. In this respect, videogames have many parallels with Western art: portrait painting, photography, cinema, television. All give primacy and centrality to the human figure, a feature which has clear associations with ideologies of individualism and selfhood. Compare, for example, the position of the avatar in *Tomb Raider* and *Tetris* in relation to the political systems which produced each game.

The avatar is also an extremely ambivalent figure. Helen Kennedy considers Lara Croft as both character and cultural icon, as visual spectacle for heterosexual men, and a source of investment for women gamers seeking female agency.[5] Henry Jenkins in discussion with Mary Fuller argues that videogames are about spaces not character or plot, with avatars functioning largely as vehicles through which players move around these spectacular landscapes. Just as Jenkins claims videogame characterisation boils down to 'capacities for action',[6] James Newman argues playable characters are not important in terms of appearance. Instead their significance lies in 'gameplay-affecting characteristics' of speed, fighting skills, game goals, or the ability to float.[7] Probably the most dismissive assessment of avatars' visual significance comes from Espen Aarseth who asserts that despite the critical attention she has received: 'the dimensions of Lara Croft's body [...] are irrelevant to me as a player, because a different-looking body would not make me play differently.'[8]

The avatar may be variously considered a character, actor, star, icon, counter and transparent puppet. It is a key figure - in many ways unique to the videogame - which can help us understand the specific features of the form. Avatars are the locust of player interaction, frequently embodying the tension between freedom and structure that typifies videogames and the 'regimes of agency and restriction'[9] which organise the videogame text. Furthermore, the avatar provides an embodied and recognisable figure on which to focus analysis, extremely useful in discussing a medium that remains a mystifying subcultural form in the eyes of many academics.

In anticipation of a future 'avatar theory', I would like to contrast two ways of understanding this figure and its relationship with the player.

Firstly, this relationship might be considered a cyborgian one. The avatar constitutes a virtual extension of the player's body. These figures on the screen respond to the player's actions: depressing buttons, moving joypads, waving the Wiimote. Engaging with the issue of videogame immersion and absorption, Helen Kennedy and John Dovey explore the ways players are 're-embodied', given agency and presence in virtual gamespaces through the technology of the interface, and the videogame avatar.[10] This 're-embodiment' emerges through the cybernetic circuit between player and game, 'a compelling literalization of the ontology of the cyborg - a subjectivity that depends precisely on this collapse of boundary between the human and the machine.'[11] Such processes are typified by *Eye Toy: Play*, a game which literally puts the player on the screen, and games like *Black and White*, *GTA: San Andreas*, and *Fable* where game environments and avatars become altered according to player action. The figure of the cyborg suggests freedom from physical, ideological and bodily restrictions, and Dovey and Kennedy argue this cybernetic process allows the possibility of experimenting with different subjectivities, exploring worlds free of prejudice, and deepening our understanding of social conflict.

Yet these arguments, while acknowledging the utopian dimensions of the cyborg model, are frequently tempered with less positive metaphors suggesting not so much the projection of the player into the screen as the fixing of the player by the videogame apparatus. These evoke another, less liberating model: that the avatar might represent a form of interpolation, hailing and subsequently fixing the player through the requirement of interactive engagement. The videogame player's autonomy is far from free. Agency is restricted in accordance with the bodily limitations of the avatar, but also the structure of the game interface, and broader demands of game rules, objectives, rewards and punishments.

Drawing on the work of Louis Althusser, King and Krzywinska suggest videogame interpellation may be greater than with film, the player's participatory role contrasting with the detached perspective of the cinema spectator. The authors make clear they are much more comfortable with the application of this framework to the game's situation of the player as player - someone self-consciously playing a game - rather than as the (frequently violent) character within the videogame.[12] The model of interpolation is also explored by Sue Morris in a Baudry/Metz inspired analysis of first person shooters. There is greater collapse, Morris argues, between the enunciating position of the videogame producer and the player who appears to produce the textual experience through manipulation of the interface.[13] Bob Rehak also applies Christian Metz' discussion of cinema to videogames, and the work of Jacques Lacan to the 'unstable dialectic' between player and avatar. Rehak discusses the 'suturing effects of interactive technologies', describes

videogames as 'powerful interpellative systems with profound implications for subjects - and subjectivity - in densely mediated societies.' [14]

For critics applying psychoanalytic frameworks developed through film studies, videogames appear to realise the illusionary mastery and control so central to cinema's interpolation of the spectator. If identification with the cinematic processes entails a suturing of the spectator and a subsequent internalisation of film's dominant ideological order; identification with the videogame avatar leads to a similar fixing of the player whose actions are increasingly synchronised with those demanded by what Dovey and Kennedy term the ''preferred performance'' of the game.[15] This appears to emerge naturally from players' engagement with a game environment designed to efface its technologies, to appear transparent and 'real' according to videogame conventions. We feel as if we are inventing the means to reach that high ledge, or master that new weapon, or find the safe route through *Silent Hill*'s streets and houses. And yet in achieving these things we are simply following the game designer has embedded for us to find. In this respect we internalise the ideological dimensions of these actions, be they shooting Nazis, or raiding tombs, or ferrying prostitutes from john to john.

The converging of avatar, game goals and game space is observed by Julian Kücklich who argues: 'It is […] the player's desire to become the model player of the game that enables him or her to identify with the avatar, and thus to interact with the game world and make progress in the game.'[16] The avatar is central to this process. It is the focus of identification. It is the means by which the player - cyborg-like - engages with the game space and performs game objectives. The avatar's humanoid appearance serves as the player's double. Moreover, the avatar, with its implied physical presence, social identity, history and personality, provides a sense of embodiment to the player's performance, giving abstract ludic processes a materiality that makes them open to ideological analysis.

I will now conclude by considering my playing of Capcom's survival horror *Haunting Ground*[17] in relation to these issues. In this game the playable figure is Fiona, an avatar with all the visual and audio characteristics of a white young British upper class woman.

The first point to emphasise is that the avatar's function is multiple rather than singular, and varied rather than uniform. At times the avatar is simply a method of exploring the game space: a huge castle full of winding staircases, twisty passages and mysterious rooms. In such instances my cyborgian alignment with the avatar is experienced most strong. I forget my distance from the figure on the screen in my desire to explore the castle.

In other moments of play, the avatar is a vulnerable figure to be protected, when perused by one of the many adversaries who reside in the castle. At such times the player must find a safe place for Fiona to hide until the threat has passed: behind a shower curtain, under a sofa, inside an iron

maiden. At such points Fiona's separation from me becomes more acute. I am aware of my role as her protector, helping to evade threats to the avatar's body. Here I am interpolated as a *player*, not as a character. I am not Fiona, but someone looking after Fiona. But this form of interpolation is hardly free from ideology. Fiona's visual narrative status as a white female undoubtedly functions to encourage the sense of helplessness and vulnerability I sense in the figure on the screen, which I must alleviate through finding an adequate hiding spot. I do identify with Fiona's sense of panic. I am anxious to keep her safe, but more because her death would frustrate my progress through the game than due to a real fear for her or my own safety.

Notably, when hiding the game's visual perspective suddenly shifts from third person to first person: players seeing things from Fiona's eyes as the adversary snuffles round the room trying to seek her out. This is a strange and arresting moment; one which in film studies is seen as aligning viewers with protagonist, but which in this instance disrupts the player's normal third person relationship with game, screen and avatar. Even more disruptive is the game's 'panic mode', activated if the avatar gets too close to an adversary. In this state the player looses direct control of the avatar, the joypad vibrates and the screen becomes blurry. Fiona stumbles wildly around, bumping into walls and objects. Both point of view shot and the visual distortion of 'panic mode' can be understood as encouraging identification with the avatar through adopting optical or psychological perspectives. However, both simultaneously break the player's immersion in the game drawing attention to its surface texture, its mechanics and technologies.

Sometimes Fiona exists as a character in cinematic cut-scenes where she moves and speaks independent of the player's participation. Here Fiona exists as part of a narrative in which she is the daughter of a clone, murdered by his evil brother, who plans to use Fiona's body to make himself immortal. The function of such scenes is to enforce a sense of Fiona as an embodied presence within the game, something underlined by other characters' obsession with her body. Such elements structure Fiona according to the traditional position of women in mainstream cinema: the object of the 'male gaze,' also evident in the opening scenes where the avatar is unclothed, walking around with only a sheet to cover her nakedness. Again, the gendering of the protagonist is fundamental to this process.

Fiona is an avatar both in and out of control, typifying the oscillating structure of the horror videogame as discussed by Tanya Krzywinska.[18] A cyborgian merging or identification is most acutely felt throughout the more mundane exploratory portions of the game. During moments of conflict there is a separation of gamer and avatar where the player becomes aware of their position outside the text. In other instances Fiona becomes objectified, predominantly in non-participatory cut-scenes, where players' distance from the protagonist is most acutely underlined.

Exploring the nature of player and avatar relationships reveals much about the processes of videogame play, the function of videogames as audiovisual texts, and the identity politics of this increasingly sophisticated medium.

Notes

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[2] M Lahti, 'As We Become Machines: Corporealized Pleasures in Video Games', in *The Video Game Theory Reader,* M J P Wolf and B Perron (eds), Routledge, London, 2003, p. 163.
[3] S C Murphy, ''Live in Your World, Play in Ours': The Spaces of Video Game Identity', *Journal of Visual Culture*, vol. 3, no. 2, 2004, p. 231.
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[7] J Newman, *Videogames,* Routledge, London, 2004, p.129.
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[9] G King and T Krzywinska, *Tomb Raiders and Space Invaders: Videogame Forms and Contexts*, IB Tauris, London, 2006, p. 214.
[10] Dovey and Kennedy, *Game Cultures: Computer Games as New Media,* p. 106.
[11] ibid, p. 109.
[12] King and Krzywinska, *Tomb Raiders and Space Invaders: Videogame Forms and Contexts*, p197-8
[13] Morris, 'First-Person Shooters - A Game Apparatus', p. 89-90
[14] B Rehak, 'Playing at Being: Psychoanalysis and the Avatar', in *The Video Game Theory Reader*, M J P Wolf and B Perron (eds.), Routledge, London, 2003, p. 104-5.
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[16] J Kücklich 'Perspectives of Computer Game Philology', *Gamestudies: The International Journal of Computer Game Research*, vol. 3, issue 1, May 2003, viewed on 14 July 2008, <http://www.gamestudies.org/0301/kucklich/>.
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The Baroque Body: A Social Commentary on the Role of Body Modification in Scott Westerfeld's *Uglies* Trilogy

Kristi N. Scott and M. Heather Dragoo

Abstract
As a genre, science fiction provides a uniquely fertile medium from which we can extrapolate the defining characteristics of personhood, explore our future potentials, and project our current selves onto tomorrow. One such example is the *Uglies* trilogy by Scott Westerfeld. The series builds on a socially stratified environment, akin to Huxley's *Brave New World*, but built around the contemporary surge in popularity of cosmetic surgery instead of a prenatally-determined class system. The world created by Westerfeld suggests that while body modification is for many today an expression of individuality or chosen community, it is creating a new and coercive 'normal body.' The extreme and abnormal becomes the norm. Once extreme body modification measures are adapted, new rogues will push the boundaries again to stand out as individuals. Beauty standards reflect a cycle of rebellion, conformity, and rebellion. Westerfeld's trifecta of *uglies*, *pretties*, and *specials* are subversive political images targeted at the young, the potential early-adopters of body modification, highly susceptible to peer influence and with considerable disposable income. Through the *Uglies* lens the body is a transformational medium, a social commentary carved with a knife in flesh. Thus, this paper will seek to juxtapose the changing nature of the body with social dynamics from a humanistic perspective.

Key Words: Science Fiction, Body Modification, Cosmetic Surgery, Youth Culture, Beauty Standards.

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1. The Body

The body serves as the most tangible feature of what it is to be human, encapsulating our humanness in form and providing an outlet for humanity. While this body signifies a primary commonality, differences in appearance fuel the ongoing blight of human interactions. Stave for this universal shape, the human body provides an artistic and political canvas for intentional manipulation, a malleable vehicle we can use to distinguish ourselves from or align ourselves with other members of the species. The ability to customize one's body as a measure of individualistic or collective

identity is a practice inherent in human history. With technology at our disposal, humans are taking our uniqueness to extremes as the boundaries of what constitutes the human body are changing. The desire to adorn, decorate, enhance and maul the body modifies its natural composition and creates new aesthetics of human form and beauty. Scott Westerfeld's *Uglies* trilogy fashions a rich venue to explore the role of body modification as it relates to today's youth and society as a whole.

Body modification covers a broad spectrum of seemingly enhancing and/or disfiguring adjustments to the body. The adjustments can range from routine medical alterations (such as, male circumcision), bodily adornment (such as, tattoos), cosmetic surgery (such as, rhino plasticity), to extreme technological advancements (such as, bio-carbonate prosthetics). The continuum from minor to extreme body modification is clearly diverse both in the degree of alteration and social acceptability. Body modification will be loosely defined as permanent or semi-permanent deliberate altering of the human body for non-medical reasons, such as spiritual, social, or aesthetic motivations. In this commentary, some of the modifications illustrated in the science fiction novels *Uglies*, *Pretties* and *Specials* correlate to primitive techniques.

2. Idyllic Beauty

Scott Westerfeld's dystrophic future presents a socially stratified environment focused on beauty as an indicator of societal position. At sixteen, the *uglies* undergo a transformational operation, an extreme total-body modification from flawed appearance to a culturally ideal standard of beauty. After the operation, they move to communities designated by corresponding post-op stage and interact infrequently with others outside that status. These total-body modifications are societally dictated in order to satisfy and pacify the masses. The 'pretty-making' operation was designed to alleviate human beings from our problematic nature. Both uglies and pretties value the operation because of what they are told it has prevented and changed.[1] The goal is to avoid the past, illustrated by the *rusties*, a highly economically based and materialistically driven era similar to our contemporary world. This flawed generation that almost brought about the demise of the human race.

From the rusty era, the *naturals*, a rare occurrence of being born naturally pretty, were revered as makeshift idols like other cultures would gods.[2] The new pretties include references to naturals in complimentary lingo, such as 'a milli-Helen is enough beauty to launch exactly one ship,' and their names adorn several buildings in New Pretty Town.[3] Like the rusties, their concept of ideal beauty is created by the culture. However, the city's Pretty Committee determines the standards of beauty and guidelines for the operation.[4] While 'some cities allowed exotic operations […] the

authorities here (New Pretty Town) were notoriously conservative,' but all cities considered the global context to ensure that residents of one city would not be prettier than others.[5] These operational limitations express one method of control the society exhibits over its people.

Since the uglies are taught they are born 'ugly,' becoming 'pretty' is their evolutionary ideal.

> Big eyes and full lips like a kid's; smooth, clear skin; symmetrical features; and a thousand other little clues. Somewhere in the backs of their minds, people were always looking for these markers. No one could help seeing them, no matter how they were brought up. A million years of evolution had made it part of the human brain.[6]

The continued social consent of adults is largely based on the values learned in childhood.[7] These beliefs become fundamental constructs that influence their perceptions as confirmatory bias continues to reinforce them. The pretty society fosters the innate quality of human beings to conform. Some of which are even aware that historically 'the majority of people have always been sheep.'[8] Coercion by the social, political, and economic structures perpetuates conformity, and people are motivated to go along with the system when it is individually advantageous. Censorship of dissent, promotion of the status quo and peer influence reinforce this inclination to conform.[9] Nonconformism often begets social hostility as 'standard behaviour is not salient; it is just the opposite with unusual behavior […] salience draws scrutiny […] (and) effect.[10] Essentially those that stand out are noticed and those that blend in are not.

In society, pockets of rebellion do occur, but the occurrences are within the same environments fostering conformity.[11] The act of rebellion is 'warped' by these views and over time works 'to undermine it-thereby returning society, repeatedly, to a new conformism […] a recurrent problem, a recurrent stifling of rebellion, resistance, dissent.'[12] In the texts, the majority accepts the beauty ideal and accompanying social structure as normal, and do not seek to rebel against it. This cycle plays itself out in the texts as the main characters learn the truth about the operations.

3. Cyclical Identity

In *Uglies*, we are introduced to our two main characters Tally and Shay. Tally's greatest desire is to become pretty and Shay is not nearly as interested.[13] Tally believes that the operation does not change who you are, just how you are perceived. She alludes to what might happen if she does not have the operation. After 20, 'the operation won't work as well, you'll look wrong forever.'[14] Shay is resistant to peer pressure and societal norms.

> Big Or maybe when they do the operation - when they grind and stretch your bones to the right shape, peel off your face and rub all your skin away, and stick in plastic cheekbones so you look like everybody else - maybe after going through all that you just aren't very interesting anymore. [15]

Their relationship suffers from mild resentment because of Shay's reluctance and Tally's inclination to conform. Shay runs away to the *Smoke*, a makeshift community of people that do not have the operation thus staying 'ugly' forever, but leaves Tally cryptic clues about how to locate her.[16] Tally is forced to betray her friend as *Special Circumstances*, a covert organization that keeps order in their society, blackmails Tally with the threat of never receiving the operation.[17] Rebellion against the operation undermines the city.

The outcasts in the Smoke provide a glimpse of life in the pre-Rusty era and introduce the girls to matured uglies.[18] David shows the girls an alternative reality and unites them on the idea that there is beauty in nature and in remaining ugly. Tally learns the secret behind the operation from David's parents, who tell her that the operation adds lesions to your brain that make you 'easier to manage.'[19] David's father explains their concept of evolution is conditioning, a cruel trick, and David claims 'the worst damage is done before they even pick up the knife: You're all brainwashed into believing you're ugly.'[20] After learning the truth, Tally agrees to become pretty in order to test the cure in the future.

Once pretty, the potential for body modification does not stop with the operation in the same way that it does not today. The pretties are free to engage in a variety of cosmetic enhancements. These extravagant and beautiful methods of artifice are not typical forms of rebellion but rather extravagant societal norms. It was common for new pretties to 'surge,' meaning they get radical body modifications for primarily decorative purposes. Shay's eye surge consisted of 'twelve tiny rubies ringed around glowing softly red against emerald irises' forming a clock that runs counter clockwise.[21] Tally got a lacework flash tattoo on her face that was in tune with her heart rate.[22] After a while, other members of her clique get 'heart triggered' tattoos too referencing their collective group identity.

However, the transformation from ugly to pretty also alters Tally and Shay's identities and they lose their sense of subjectivity, 'one's existence as thinking, feeling person […] to loose one' subjectivity is to lose one's identity entirely.'[23] Their altered appearance affects their personalities, thus who they are to become is based on how they appear.

> Big Almost the entirety of our daily lives is built up on this set of unreflective expectations and practices, for which

> some degree of broad social conformity is clearly necessary. Individual nonconformism is almost invariably perceived as a threat to that practical identity.[24]

The threat of nonconformism is what Special Circumstances was designed to control. Ironically, those pretties that eventually became specials are the ones most likely to rebel against the system.

Specials are the most extremely modified of all in this society, feared for their 'cruel' human looks and less than human behaviour. Dr. Cable continually tries to persuade Tally that 'humanity is a disease, a cancer on the body of the world […] Special Circumstances […] we are the cure.'[25] The specials represent what happens if body modification is taken too far, resulting in a loss of humanity. The control over humanity and the diminishment of human nature are exactly what Special Circumstances were designed to protect. Dr. Cable points out that without regulation, we, as human beings are doomed to repeat our problematic mistakes. Their society revolves around in-groups and out-groups in addition to the body modifying operations. These groups play a large role in the characters individual and collective identities. Whether it is a choice about what type of new surge to get, which party to attend, or what side of the city you are on, uglies and pretties particularly look to their peers for guidance.

4. Cultural Body Modification

Westerfeld's inventive world highlights extreme body modification as the norm but mirrors the real world in several respects. Body modification has always been a part of our collective human history, '[…] right at the heart of this symbolic universe, which sets our species apart, is the art and language of the styled, customized human body.'[26] Primitive or traditional tribes have used body modification, in forms such as tattooing, piercing, or scarification, to express an informative message about their culture.[27] Contemporary societies have adopted many of these types of modification, but in the Western world, we are generally more focused on decoration rather than communication.[28] This disconnect relates to the values of our culture. Tribal tattoos have become increasingly popular in recent years. In fact, Tally's flash tattoo is loosely based on the M*oko* style of the Maori tribe from New Zealand.[29]

However, many subcultures today adopt body modification practices as part of their group identities. In addition, people seek out body modification as a method of expressing their individuality.

> Big Contemporary urban and suburban culture […] has banished as barbarous the ancient notion of a physical rite of passage. Without these rituals people's lives are often

> empty, lacking in meaning and demarcation, and nowhere is this more evident than in Western teens, who seemed dazed and confused by the ambiguity of their social status…hungry for a significant ritual to mark officially their transformation to adulthood.[30]

The popularity of body modification may be a result of Westerners, particularly, looking to satisfy that need for ritual. Modern Primitives seek out 'body play' which focuses more on the process rather than the result. The experience is the goal. In addition, those seeking the experience are pushing the envelope by moving away from the now mainstream act of tattooing and piercing into less socially acceptable forms such as scarification, bloodletting and pain.[31] Traditional cultures have used these types of painful body modification to achieve 'altered states of consciousness.' This correlates well to the text as Shay finds that by cutting herself she can stay bubbly. To them, bubbly is an altered state of mind outside of the pretty mind. Not only did this bloodletting process cause a shift in perception, but it also left her with scarred arms.

5. Future Choice

As young adult fiction, the *Uglies* trilogy has been immensely popular. In addition to beauty centred body modifications, creative slang and unique technical gadgets, such as hover boards, offer the youth culture ideas about our potential future. The contemporary audience is one that is highly desirable to advertisers and marketers.[32] Though Westerfeld's message about the dangers of going to extremes is evident, the success of the series and its target audience creates a window of opportunity for the adoptability of similar trends and the commercialization of future products.

In addition, the books offer an impetus for an important dialogue about beauty standards and our culture's obsessive captivation with them.

> Why am I unhappy […] because the city makes you the way *they* want you to be, Peris. And I want to be myself […] their reasons don't mean anything unless I have a choice […] and they don't give anyone a choice.[33]

One should be able to have the choice whether or not they want to conform to societal standards as far as beauty is concerned. Whether mandated or through social pressure, one should have the right to choose whether they want to become pretty or stay 'ugly.' As we move into the future, society will continually follow its pattern of conformity and dissent, extremes and norms. Body modification has been around since antiquity, and it will continue to push the limits of social acceptably. Since the youth culture is susceptible to

early adoption of trends, prone to conformity within in-groups and non-conformity within out-groups, we can look to them to see what the future holds in terms of beauty.

Notes

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[2] S Westerfeld, *Uglies*. Simon Pulse, New York, 2005, p. 118.
[3] Westerfeld, *Pretties*, p. 24.
[4] Westerfeld, *Uglies*, p. 262.
[5] ibid., p. 39.
[6] ibid., p. 16.
[7] P C Hogan *The Culture of Conformism. Understanding Social Consent*. Duke University Press, Durham and London, 2001, p. 74.
[8] Westerfeld, *Uglies*, p. 272.
[9] ibid., 67.
[10] ibid., 33-4.
[11] ibid., p. 12.
[12] ibid., p. 12.
[13] ibid., p. 37-41.
[14] ibid., p. 93.
[15] ibid., p. 50.
[16] ibid., p. 91.
[17] ibid., p. 110.
[18] ibid., p. 189.
[19] ibid., p. 272.
[20] ibid., p. 276.
[21] S L Gilman, *Making the Body Beautiful. A Cultural History of Aesthetic Surgery*. Princeton U. Press, Princeton, New Jersey, 1999, p. 87.
[22] Westerfeld, Pretties, p. 102.
[23] Hogan, p. 91.
[24] Hogan, p. 32-3.
[25] Westerfeld, *Pretties*, p. 136.
[26] T Polhemus, *Hot Bodies Cool Styles New Techniques in Self Adornment*. Thomas and Hudson Ltd, London, 2004, p. 8.
[27] ibid., p. 29-30.
[28] ibid., p. 45.
[29] S Westerfeld, 'Flash Tattoo Watch 01′, westerblog, 2008, retrieved 19 May, 2008, <http://scottWesterfeld.com/blog/?p=206>.
[30] Polhemus, p. 79.
[31] Ibid., p. 60-1.

[32] J B Schor, *Born to Buy. The Commercialized Child and the New Consumer Culture*. Scribner, New York, 2004, p. 19-20.
[33] Westerfeld, *Pretties*, p. 232.

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Part IV

Merger & Embodiment

Cyborg Art as a Critical Sphere of Inquiry into Increasing Corporeal Human-Technology Merger

Elizabeth Borst

Abstract
This paper introduces and examines the concept of 'cyborg art,' which describes literal and figural visual representations of corporeal human-technology integration. The transforming and emerging human is therefore the focus; who we are today, and who (or what) we may become, as increasingly interfaced with technology. Overall, theoretical discussion centring on visual representations of cyborgs (or posthumans) relate predominately to science fiction, in particular film and television, as opposed to art. I argue that this constitutes an investigative limitation into the broad and relevant field of human-technology interface inquiry. A profusion of cyborg art and art practices abound within contemporary Western society, each differing art form, for example, conceptual, interactive, performance, digital, sculpture or painting, offering possible 'symbolic function' and 'critical potential' regarding increasing cyborgisation, and changing human physical ontology. Representations of new triadic entities are of particular interest, the ways in which artists are fusing human (culture), animal (nature), and machine (technology) elements together within one artwork.
I suggest that the artistic melding of organic and inorganic spheres alludes to the common ontology which exists between these states; the scope of advanced technologies; the dissolution (and rupturing) of boundaries and dualisms under postmodernism, and the far-reaching ideological implications this evokes. The goal of this paper is to present the underlying theoretical and ontological breadth (and creative depth) of cyborg art, to introduce new cyborg configurations, and to argue for the need to develop a specific cyborg art genre as a recognised and valid area for research regarding escalating body-technology amalgamation.

Key Words: Cyborg, Art, Corporeality, Convergence, Ontology

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1. Introduction

Cyborg art focuses on technology as intimately interfaced with the human body, no longer existing as an attachment or tool, but incorporated within (or altering) the body's inherent structures. These 'cyborgian

technologies' include pacemakers, synthetic organs and valves, artificial joints and ligaments, genetic engineering, assisted/artificial reproduction technologies, external gestation, xenotransplantation, cloning, cryonics, biotelematic implants, direct carbon and silicon links, and the creation of transgenic entities - all technologies in existence today, in varying degrees of application and stages of development.[1]

The myriad of cyborg artworks created today offers ample avenues for enhancing awareness and understanding of these developing corporeal human-technology links. Additionally, most cyborg art (whether situated within popular culture, fine art, or performance art realms) is presented on the internet which potentially reaches a large audience. Despite this, cultural theory and analysis relating to cyborg art remains limited, adding to its elusiveness as a concept, and lack of recognition as an art genre.

This introductory paper is based on an in-depth study into cyborg art, which developed in response to Chris Hables Gray's call for critics to pay attention to the growing cyborg aesthetic prevalent today, and the critical potential of human-technology interface art.[2] The four artworks presented here are metaphorical and figural cyborg representations - with a focus on the convergence on flesh and metal - and are situated within three key spheres of corporeal-technological developments: prosthetics (machinic technologies), telematics (electronic - computer and telecommunications technologies) and genetics (biotechnologies).

2. Prosthetics

Viktor Koen, a multi award-winning digital artist and illustrator, created *Nutrition Man*,[3] shown here, as a figural depiction of technological augmentation of the body via prosthetics. Koen's futuristic cyborg represents the enhanced techno-body in motion, where propulsion units and machinic technologies are propelling him into the posthuman age. The multifarious technology serves as a metaphor for superior nourishment of the human body - interface technology as boosting natural systems.

Image 1 - *Nutrition Man* (2005) Digital Art Illustration Artist: Viktor Koen

Stelarc, the controversial and renowned Australian performance artist who centres his artistic focus on prosthetics and robotics, is one of the staunchest proponents of the inadequacy of the body's functioning systems, and the outdated concept of aging.[4] He refers to the natural body as 'obsolete' (no longer viable), and theorists in general agree that the quest for enhanced strength/beauty, longevity and immortality fuels the force and compulsion of technoscience.[5]

Increasingly technologies are no longer an appendage or an extension to the body, but directly incorporated and assimilated within the body's inherent organic structures.[6] Today, many parts of the human body can be replaced with prosthetic technologies and devices.[7] Therefore terms such as 'prosthetic couplings'[8] are increasingly used to define new cyborg configurations. Yet, corporeal-prosthetic melding can generate wary reactions from individuals as prosthetic limbs and devices are often viewed as artificial components invading and contaminating the (natural) body, challenging what Elaine Graham calls the human body's 'ontological hygiene.'[9] Koen's cyborg represents this penetration, as technology is grafted or interfaced into nearly every inch of his body.

3. Telematics

Christos Magganas, a Greek multimedia artist has created *Hermes,*[10] shown below, to metaphorically represent wireless telematic ideas merged with the human body. Hermes in Greek mythology was a messenger to the gods,[11] and he is here transformed into a posthuman cyborg messenger, receiving and sending the plethora of globally transmitted messages which exist today. The divine cherubs have also been morphed into the ubiquitous iconic computer screen. Magganas is interested in the role of the body and embodiment in the digital era, Greek mythology, and the 'Shrinking of the world through communications technology.'[12]

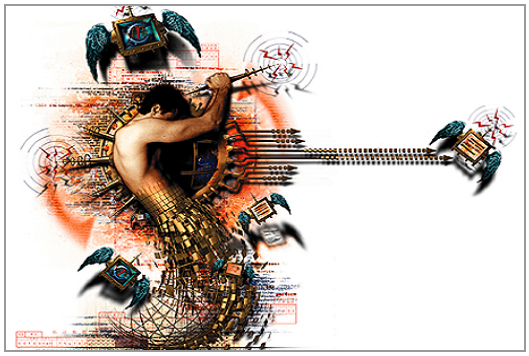

Image 2 - *Hermes* (1997) Digital Art Illustration Artist: Christos Magganas

Telematics is a central topic of discussion today as geographical borders diminish, and the speed of communication increases.[13] Roy Ascott states that 'With the convergence of computers and telecommunications, the 'thinking system' becomes planetary.'[14] Pierre Lévy agrees envisaging a future collective society linked by electronic networks, where 'A nomadic distribution of information will fluctuate around an immense deterritorialized semiotic plane'[15] - the global equidistant internet. The quintessential cyborg is often viewed as a cybernetic communication network entity,[16] and *Hermes* represents this as his lower torso is shown dissolving and disappearing into pure energy.

4. Genetics

Lastly, the advanced developments existing within the sphere of genetics generate a wealth of artistic inspiration for the creation of new transgenic, triadic and quadratic entities. Dave McKean, the award-winning English artist has created *Feeding the Machine,*[17] shown here, which shows a triadic fusion of animal, human and machine components. McKean's 'techumanic tribrid' has an upper body covered with reddish fur, and a human-machine head and face (pushing through the mouth of a second face) symbolising our evolution from animal, to human, through to machine, and increasing nature, science and technology convergence. As Steven Best and Douglas Kellner state, ''Human beings' today can easily be part human, part animal and part machine.'[18] McKean also alludes to Lewis Mumford's concerns that our increasing integration with technology will 'anesthetise us,' destroying our creativity and empathy.[19] McKean's tribrid is depicted as devoid of vigour, passively awaiting 'progress' or 'nourishment' which cannot ultimately satisfy him.

Image 3 - *Feeding the Machine* (1999) Surrealist Artwork Artist: Dave McKean

Norbert Wiener, who coined the term cybernetics in the late 1940s, was the first to suggest that animals, humans and machines all had similar cybernetic systems of control and communication,[20] and increasingly artists, writers and theorists such as Donna Haraway, Eduardo Kac, Dave McKean, Faith Wilding, Murray McKeich, Philip Hitchcock and Viktor Koen, are showing their interest in the common ontology which exists within these spheres, and the far-reaching ideological inferences this alludes to.

Heidi Taillefer, the celebrated Canadian graphic artist and painter moves even further into exploring the junction between organic and inorganic realms with *Venus Envy*,[21] shown below, by combining human, animal and technological components, *and* plant matter within one image. In this artwork, human female flesh and form covers internal technology and machinery; snakes are represented as hair in the manner of Medusa, and fruit, flowers and plants are also intimately incorporated within this female cyborg's corporeality. In addition, mechanical pipes are shown filling the artificial breasts with milk, ready for the growing human baby shown floating in the amniotic fluid of the transparent artificial womb sack. *Venus Envy* is a new millennium quadratic entity, a fusion of Eduardo Kac's interspecies creations 'plantimals' (plant and animal genetic mix), and 'animans' (animal and human genetic mix).[22]

Image 4 - *Venus Envy* (1996) Painting: Oil on Canvas 44 in. x 60 in.
Artist: Heidi Taillefer

Venus Envy also represents the paradoxes often felt towards technoscience and its applications, alluding to the 'miracles' and 'monstrosities' that can be developed and created today, and the ideological struggle over the distinction and disparity between the natural and (the fascination with) artifice.[23] The cyborg and posthuman body can be seen in

transition in the twenty-first century, passing 'Through a series of gateways that seem now without end.'[24] Boundaries are increasingly collapsing between species and the machine as a result of our biotechnological capabilities and knowledge. Yet, despite this, and the prevalence of tribrids depicted in art, the concept of triadic (and quadratic) merger is extremely limited in theoretical cyborg or posthuman discussion.

5. Conclusion

Theorists and artists increasingly grapple with the question of what it means to be human today,[25] as such, 'The cyborg has been used to fill the void in attempting to make sense of who we are and what we might become.'[26] The cyborg is therefore deemed a symbol or icon of the technoscientific age, its dual status of being both organic and non-organic providing a symbolic function for society, by existing as a mediator between these two realms.[27]

This paper has demonstrated the way cyborg art points to important and relevant themes regarding increasing body-technology fusion, including: sites of possible being (prefigurative representations); transgression (the crossing of traditional Western ideological binaries and boundaries, such as male/female, organic/artificial, nature/culture, human/animal, born/made and private/public); cyborgian paradox (the human desires and fears felt towards advanced technologies, and the marvels and monsters which can be created); the dehumanisation of technologies (and increasing human dependency on technology); the instability of the symbiotic body/identity as constituting soft (warm) flesh, and hard (cold) machinery; and the way in which skin no longer serves as a barrier and boundary to the inner corporeal realm.

Cyborg art is a discursive tool for addressing the interconnection and relationship between humanity and technology, and can be viewed as having critical potential as it serves as a possible catalyst for increasing theoretical analysis relating to, and societal awareness of (and interest in) advanced corporeal technologies. Cyborg art can (and should) have social value and societal function, as this art genre offers versions of the technoscience debate that are not often considered, and forms of resistance not immediately apparent.[28] I therefore suggest a need arises to embed and ground cyborg art in the realm of corporeal-technological embodiment; to recognise cyborg art as constituting a specific (critical and relevant) art genre; and for cyborg art to be acknowledged as a significant arena for exploring issues surrounding altering human physical ontology, in addition to being valued as complementary to theoretical discussion focusing on escalating body-technology convergence.

Notes

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[3] Image 1, V Koen, *Nutrition Man*, 2005, Digital Art Illustration, Men's Journal, 2005, retrieved 28 November, 2007.
[4] Stelarc, 'From Psycho-Body to Cyber-Systems: Images as posthuman Entities', in *Virtual Futures: Cyberotics, Technology and Post-Human Pragmatism*, J Broadhurst Dixon and E J Cassidy (eds), Routledge, London, 1998, p. 117.
[5] V Kuni, Cyborg Configurations as Formations of (Self-)Creation in the Fantasy Space of technological Creation (I): Old and New Mythologies of Artificial Humans, 2004, p. 3, retrieved 12 December 2006.
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[8] J Zylinska, ''The Future…is monstrous': Prosthetics as Ethics', in *The Cyborg Experiments: The Extensions of the Body in the Media Age*, J Zylinska (ed.), Continuum, New York, 2002, p. 216.
[9] E Graham, *Representations of the Post/Human: Monsters, Aliens and Others in popular Culture,* Rutgers University Press, New Brunswick, 2002, p. 33.
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[12] C Magganas, *Christos Magganas,* n.d., para. 3.
[13] R Packer and K Jordan, 'Overture', in *Multimedia: From Wagner to Virtual Reality*, R Packer and K Jordan (eds), Norton, NY, 2001, p. xxvi.
[14] R Ascott, *Telematic Embrace: Visionary Theories of Art, Technology, and Consciousness*, E A Shanken (ed), University of California Press, Berkeley, 2003, p. 216.
[15] P Lévy, 'The Art and Architecture of Cyberspace: Collective Intelligence', in *Multimedia: From Wagner to Virtual Reality,* R Bononno (trans), R Packer and K Jordan (eds), Norton, New York, 2001, p. 339.

[16] D J Haraway, *Simians, Cyborgs, and Women: The Reinvention of Nature.* Routledge, New York, 1991, p. 212.
[17] Image 3, D McKean, *Feeding the Machine,* 1999, Surrealist Artwork, Mupinc Surrealism, retrieved 20 April 2006, Link: <http://www.mupinc.net/pixels/surrealism/MckeanDave/target10.html>.
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[19] L Mumford, *Art and Technics,* Columbia University Press, New York, 1960, p. 9.
[20] N Wiener, *Cybernetics; Or, Control and Communication in the Animal and the Machine*, 2nd edn., MIT Press, New York, 1961.
[21] Image 4, H Taillefer, *Venus Envy*, 1996, Painting. Oil on canvas, 44 in. x 60 in, Artworks, http://www.heiditaillefer.com/.
[22] E Kac, *Telepresence & Bio Art: Networking Humans, Rabbits, & Robots*, The University of Michigan Press, Michigan, 2005, p. 243.
[23] C Springer, *Electronic Eros: Bodies and Desire in the postindustrial Age*, University of Texas Press, Austin, 1996, p. 77.
[24] A Murphie and J Potts, *Culture and Technology,* Palgrave, New York, 2003, p. 115.
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[28] C H Gray, 'In defence of Prefigurative Art: The Aesthetics and Ethics of Orlan and Stelarc', in *The Cyborg Experiments: The Extensions of the Body in the Media Age,* J Zylinska (eds), Continuum, New York, 2002, p. 182.

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Interactive Dance: The Merger of Media Technologies and the Dancing Body

Zeynep Gündüz

Abstract
This article explores the collaboration between bodies and interactive technologies in relation to the cultural practice of contemporary dance. Aiming to counter-balance the increasing fear of disembodiment of the dancing body, it offers a phenomenological approach to examine the partner-work between physical bodies and abstract digital technologies. In addition, this paper examines the consequences of the integration of digital technologies for the existing cultural practice of dance and the roles of digital technologies incorporated in stage performances and illustrate these changes via the case study *Apparition* (2004).

Key Words: Embodiment, Phenomenology, Interactive Technologies, Interactivity, Virtuality, Dance, Cultural Practices.

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1. Introduction

In dance, bodies and technologies have often been seen as incompatible, even unethical. Accordingly, technologies have frequently been accused of 'dehumanising' the body and its dance. Moreover, the currently increasing intimacy between dance and digital media, such as telematics and motion capture, causes dance practitioners to fear that technologies are generating a 'disembodiment' of dance, which implies the extraction of the physical body from the choreography.[1]

However, dance and the phenomenon of dance performance is not only an art form, but a cultural practice that changes as the dancing body is affected by cultural and technological shifts. In the past decade, interactive digital media that share characteristics of cybernetic systems have infiltrated art in general, and live dance performance in particular. Theatre theorist David Saltz describes this interaction as: 'sounds and images stored, and in many cases created on a computer, which the computer produces in response to a live performer's actions.'[2] According to Saltz, interactive media have other characteristics than traditional media, enabling new possibilities of staging narratives, but also producing a 'dramatic' relationship between the performer and media.

With respect to the collaboration of dance and digital media, my aim in this paper is threefold. Firstly, I will underline the crucial necessity of art for the interrogation of the relationship between humans and digital technologies. In addition, I will show how digital media help address certain questions inherent in dance, such as the metamorphosis of bodily form and the 'stubborn' fight against time, space, and gravity. Secondly, I will argue against the fear of disembodiment of dance by showing how this specific type of interaction bridges the gap between bodies and digital systems. In order to do this, I will take a phenomenological approach based on Mark Hansen's theory of 'bodies-in-code' (2006). I will apply my arguments to the selected case study *Apparition* (2004), a dance performance created by the media artist and composer Klaus Obermaier. The analysis will also help illustrate my third aim: to pinpoint the changing perceptions of technologies and the cultural practices of dance.

2. Dance as a Marker of Changing Cultural Perceptions

Technologies have an impact on our perception of the body; each new technology demands a new corresponding anatomy as well as a new conception of time and space. According to Katherine Hayles, living in a rich technologically mediated environment brings with it changes and shifts in habits, postures, enactments, and perceptions. However, the effect of technology, specifically the changing proprioception and sense of embodiment, need time, thought, and experience to be registered in the 'mindbody'. Art is capable of bridging the gap or discontinuities between rapid technological innovations, an abstract understanding of the body, and our embodied experience.[3] Hence, artworks that incorporate technologies and the interaction between technology and the body not only help us understand these points, but they actually change experience itself.

Dance as art form is helpful in illuminating changing perceptions and experiences of the body by means of digital technologies because the desire to question one's existence is inherent in its very centre. Notwithstanding common associations of dance as 'just something physical', dance is, in fact, a reaching beyond oneself, an active questioning of 'time, space, the engagement between the intellect and the senses. […] an interrogation of the world at the same time that it is a celebration of our existence in the world.'[4]

In this respect, the collaboration of dance and digital technologies requires close examination because being intimately tied to bodily awareness, sensual presence, and kinaesthetic experience, dance 'more than any other art form has been reconfigured in terms of new media projects.'[5] One of the most the prominent changes in the practice of dance is the notion of virtual dance and bodies. Although, to certain dance practitioners and choreographers, virtuality implies a 'disembodiment' of dance; for others

virtuality makes possible a *renegotiation* of corporeality.[6] This re-negotiation is then a *re-interpretation* of the body through the image where a continuous interchange between bodies and technologies allows presence and pattern to interact. At the same time, it is a *re-incorporation* of technologies; that is a confrontation as well as a *dialogue* between the incorporeal and corporeal. In order to counterbalance notions of disembodiment of dance and to illustrate how this re-negotiation takes place, I will now examine the theory of bodies-in-code and its primary source: phenomenology.

3. Re-Negotiating the Body, Re-Incorporating Technology

Phenomenology has its roots in the 20th century and is a philosophical and existential approach to life, body, politics, and meaning. There exist several approaches to phenomenology; however, Maurice Merleau-Ponty's method that celebrates the phenomenal body as our primary access to the world suits best for conceptualizing the body and its interaction with technologies in everyday life and the arts. For Merleau-Ponty, phenomenology has to do with descriptions of man and the world, not as objectively constituted, but as subjectively established through the lived experience of a phenomenon. It concerns itself with the 'pre-reflective' mode of being, which is 'the prior ground or condition of both the subjective and the objective.'[7] In other words, the world is always already there before reflection begins.

In his book *Bodies in Code* (2006), Hansen takes Merleau-Ponty's stance as his starting point and updates it to the domain of new media art.[8] Creating a combination of media theory and phenomenology, Hansen argues that technologies alter the very basis of our sensory experience and drastically affect what it means to live as embodied human agents. His main focus lies on the separation *and* reconciliation of touch and vision, and how this doubleness of perception can be materialized by means of interaction with digital technologies. The ability of simultaneously experiencing double sensations is inherent to the human body and is conceptualised by Merleau-Ponty as the notion of 'reversibility', exemplified as the body's ability to see and be seen, to touch and be touched.[9]

Labelling it as the 'dancing-danced', dancer/researcher Susan Kozel applies the notion of reversibility to dance, linking its doubleness to the dancer's different levels of consciousness. On a reflexive level, the dancer 'dances' but on the pre-reflexive level, the dancer is also 'danced' by the force she sets into motion. The constant shift between a pre-reflective and reflective level of consciousness marks the 'hyper-reflectivity' in dance.[10] The notion of the dancing-danced is part of the everyday routine of any dance class: when learning a new combination the dancer is required be very conscious of her body, but after the learning process, s/he is encouraged to 'let consciousness go' in order to allow the force of dance to take over as to

achieve unpredicted movement dynamics. Choreographer Keren Levi illustrates this point: when teaching a new dance combination, she suggests the dancers to 'go through the dance phrase […] the first time slow for the mind, and the second time fast for the body.'[11] In the former part then, the dancer 'marks' the phrase by visualizing the movements, while in the latter part s/he 'does' them 'full-out'.[12]

Hansen elaborates on the differences between the motile and representational modes of the body by distinguishing the 'body image' from the 'body schema'. The former is characterized by a predominantly visual understanding of the body as an external object, whereas the latter, generates from:

> The operational perspective of the embodied organism. As such, it encompasses an 'originary' preobjective process of world constitution that, by giving priority to the internal perspective of the organism, paradoxically includes what is outside its body proper, what lies in the interactional domain specified by the embodied enaction.[13]

In other words, the body image refers to the representational domain while the body schema refers to the body 'from within', it is that which comes before the body image and makes the body image possible in the first place. The body image, then, is an embodied extension or externalised form of the body schema.

Moreover, Hansen claims a current shift from representational fantasy or cinematic illusion towards a desire for complete convergence with natural (embodied) perception achieved through interactions with digital technologies. In well-established virtual reality environments, therefore, the role of representation as well as the difference between the body image and schema is eradicated. In such environments, 'whatever experience one has of one's body proper does not take the form of a representational image, but rather emerges through the representative function of the data of body movement, the way these data represent one's body.'[14] As a result, the body schema forms a medium through which the actual body opens out, or exfoliates between itself and the space. The exterior images are not only representations, but they carry traces of movement dynamics emerging from the body, reflecting what I call '*inside-outside-inside'*: visual -yet embodied- aesthetics created through the onstage dancers' physical manipulations of the technical system. Hence, the materialization of the body image in new media environments exemplifies the reversibility of the body as well as its pre-reflective knowledge of itself as such.

In Hansen's view, the increasing physical encounters with digital interactive technologies initiate the '*body-in-code'*, a body 'submitted to and constituted by an unavoidable and empowering technical deterritorialization-

a body whose embodiment is realized, *and can only be realized*, in conjunction to technics.'[15] In other words, engaging with interactive systems in new media art creates a self-reflexive experience of the 'interactor' or in the case of dance, the dancer. While highlighting certain prominent shifts in the cultural practice of contemporary dance and the perception of technologies incorporated in live performances, let me now elaborate on the case study *Apparition* in order to show how the 'body-in-code' is realized.

4. Case Study: *Apparition*

Apparition (Klaus Obermaier, 2004) is an artwork based on moving body projections made possible by a sophisticated motion tracking system that display real-time responses to the impulses given by the dancer, in the form of abstract lines, shapes, and text. An example of what I call *'interactive dance'*, this performance is a confrontation between corporeal and incorporeal forms; the major persistent theme of the piece is largely realized through the collaboration between the 'live' input of the dancers and the 'live' responses of the technological system. The starting point of *Apparition* is based on exploring the questions: 'What is choreography like when your partner is software? When virtual and real images share the same space? When everything moving onstage is independent and interactive at the same time?'[16]

The answers to these questions reveal that interactive media have consequences for the existing cultural practices of dance. Firstly, interactive media complicate the notion of 'author' and 'identity' of the artwork because engaging with these digital media requires the choreographer to share a considerable amount of his/her authority with the performer and the technician.[17] Concerning the technical system for his new piece, Obermaier has collaborated with the media engineers and designers of the Ars Electronica Futurelab. The system constantly updates information for body projections as well as qualitative calculations of certain motion dynamics. The information derived from these calculations generates real-time visuals, projected back onto the body and/or as large-scale background projections that react to the performers' movements. The choreography was created by the dancers.

Secondly, this collaboration between technicians and artists creates a unique performance environment that is activated by the human body and 'lives only when a body is living within them, without movement they are silent and dark and lifeless.'[18] Two well-known contemporary examples of 'responsive spaces' applied to the context of performance are the 'Intelligent Stage' and 'åR-Space'.[19] In these 'responsive environments', all physical actions taking place onstage can be sensed by the computer, which marks the difference between a 'traditional stage' and an 'interactive stage'. In the latter, the theater becomes an 'intelligent' space that transforms movements

within its borders into potential data to be processed and interpreted by the computer. In Apparition, for example, space becomes the:

> Materialization of an overall immersive kinetic space, a virtual architecture that can be simultaneously fluid and rigid, that can expand and contract, ripple, bend and distort in response to […] the movement of the performers.[20]

In other words, the theatre becomes what I call a 'hyper-sensitive' space where the images created by physical movement are nothing but the externalisation of the physical body's intensity, sensuality, and velocity. The visual imagery is not imposed on the dance; instead it originates from the body and is the materialization of the body schema in the form of exterior images. It illustrates how the body functions as a body-in-code, how it deterritorializes and externalises itself through engaging with technologies.

Creating the performance 'environment' emphasizes the process of experimentation rather than the end result. This transforms the aesthetics of interactive performances into an 'aesthetics of process' and the performance into sequences or 'potential concepts' to be activated differently in each performance.[21] In other words, these performances are never 'settled' or 'finished'. What is created is a rehearsed, yet to a certain degree unpredictable performance that comes to 'life' through the movement of the dancers and the reactions of interactive technologies. In addition, depending on how the system is programmed, the same movement by the dancer may trigger different reactions from the computer each time, which demands that the dancer remain alert to the computer's reactions to create '*a choreography of surprises'*. This enhances the hyper-reflectivity of dance- the play between the pre-reflective and reflective consciousness. In *Apparition*, the dancer 'dances' but is also 'danced' by the reactions of the digital system. The dance is shaped from within the pre-reflective mode of the dancer *and* from the images appearing in the external space, which in fact carry the traces of the dancer's kinaesthetic intensity. The exterior images reflect the dancers' '*inside-outside-inside'* that help determine the (visual) aesthetics of the performance as the onstage dancer creates an aesthetically interesting performance via his/her manipulations of the system.

Finally, interacting with digital media has consequences for the perception of technologies. According to Saltz, interactive technologies mark a new era of 'liveness' for technologies by contributing to the ontology of live performance. Interactive media and live performance do not represent opposite poles; actually, the ability of interactive technologies to 'sense' and spontaneously react to performers' stimuli makes them 'close cousins'. Hence, interactive technologies indicate an end of the period of 'frozen

media' and signal a new era of 'live media'. In Saltz's view, the spontaneity and 'live' responses of interactive media transform technologies into a 'live' performer that liberates these technologies from their traditional function of visual décor and recording technologies, and examines how they affect the form and practice of theatre.[22] In other words, in contrast to Hansen's approach, Saltz reminds us that technologies are not merely tools; they are the non-human partners that assist a performance.

Perhaps because of this, the world of dance remains resistant to and dubious of the incorporation of advanced technologies in live performances.[23] Scholar/dancer Erin Manning emphasizes that even the most sophisticated technologies lack the complexity of the human body and require certain adaptations from the dancer.[24] The dancer's adjustments of movement help the system to 'recognize' the dancer; a fully actualised movement is necessary for software detection, usually by accentuating extremities of the body or a displacement of the whole body across space. As a result, the software determines the choreography that qualitatively confines what a body can do even as it accentuates what the technology can do.

Obermaier situates himself on the other side of the scale. Rejecting the opinions that label the integration of dance and technologies as restricting, Obermaier argues that limitations in art are necessary in order to achieve novel perspectives because 'without any restrictions there would not be art at all. Each stage setting/set-up gives you limitations AND creates new possibilities. Even a second or third performer is a restriction for the first one.'[25] Other choreographers working with interactive systems suggest that the partner-work between dancers and interactive technologies opens up new dimensions of the body that were previously unknown, such as creating a body that is 'sensually emergent, alive with image and sound'.[26] In addition, this pro-technology pole counterbalances the frequently feared disembodiment of dance by pointing out that designing interactive systems requires 'a whole-body interface between human being and technology' that involves all of the body's senses.[27]

Relying on Hansen's arguments, I situate myself at this pole, advocating that body images do not exist independently; rather they appear based on to the empowering technical deterritorialization of the body, achieved in conjunction with technics. The body images manifested in Apparition are not representational imagery 'given from above', but are extensions of the scope, velocity, dynamics, and sensitivity of the dancing body; demonstrating the body's exfoliation into space. In this process, the technology can be considered both as tool and as performance partners, depending on the approach taken when examining the 'lively duet' between bodies and technologies.

5. Conclusion

To counter-balance criticisms of disembodiment of the dancing body caused by the integration of digital technologies in performances marks the starting point of this paper. Firstly, this paper shows how the qualities inherent in dance help to interrogate the relationship between humans and digital technologies. Secondly, this paper points out that the engagement between the body and digital technologies leads to anything but disembodiment; rather, this collaboration merges the two, creating a re-negotiation of bodily boundaries and a re-incorporation of technologies into the domain of the body. Moreover, incorporating digital technologies in dance performances requires certain adaptations from the dancer and choreographer; it also affects the creation process of a piece, which underlines that the art form of dance is a dynamic and changing cultural practice, capable of mirroring the shifts caused by digital technologies in our current social-cultural life.

Notes

[1] R Povall, 'A Little Technology is a Dangerous Thing', in A Dils, A Cooper Albright (eds), *Moving History/Dancing Cultures. Dance History Reader,* Wesleyan University Press, Middletown, Connecticut 2001, p. 458.
[2] D Saltz, 'Live Media: Interactive Technology and Theatre', *Theatre Topics*, vol. 11, nr. 2, September 2001, p. 117.
[3] K Hayles, 'Flesh and Metal. Reconfiguring the Mindbody in Virtual Environments', *Configurations,* 2002, 10.2: p. 297-320.

[4] S P Kozel, 'Athikte's voice: Listening to the voice of the dancer in Paul Valéry's 'L'âme et la danse'', *Dance Research Journal*, vol. 27, nr. 1, Spring 1995, p. 7.
[5] Bench, 'Virtual Embodiment and the Materiality of Image', viewed on 26.02.2008,<http://www.wac.ucla.edu/extensionsjournal/Essays/Bench.htm>.
[6] Ibid., <http://www.wac.ucla.edu/extensionsjournal/Essays/Bench.htm>.
[7] S P Kozel, *Closer. Performance, Technologies, Phenomenology*, MIT Press, Cambridge, Massachusetts and London, 2007, p. 16.
[8] M Hansen, *Bodies in Code: Interfaces with Digital Media*, Routledge, New York 2006.
[9] Kozel, *Closer*, 2007, p. 36.
[10] Ibid., p.38
[11] Notes made during my participation in Keren Levi's contemporary dance class, 27-30 May 2008, Henny Juriens Dance Stichting in Amsterdam.
[12] To 'mark' a movement refers to movements that are not fully actualized while doing movements 'full out' means to actualize movements according to the necessary physical dynamics.

[13] Hansen, op. cit., p. 39.
[14] Ibid.,p. 49.
[15] Ibid.,p. 20.
[16]K Obermaier. Link: <http://www.exile.at/ko/>, Silver Server, viewed on 24.05.2008, Link: <http://www.exile.at/apparition/>.
[17] Povall, op.cit., p. 458.
[18] Ibid., p. 455.
[19] R Lovell, 'A Blueprint for Using an Interactive Performance Space' in S Dinkla and M Leeker (eds), *Dance and Technology: Moving towards Media Productions,* Alexander Verlag, Berlin, 2002, p. 88.
[20] S delaHunta , viewed on 14. June 2007: <http://www.exile.at/apparition/>.
[21] J Birringer, 'Interactive Dance, the Body and Internet', *Journal of Visual Art Practice,* vol 3, nr 3, 2004, p. 168.
[22] Saltz, op.cit., pp. 124-127.
[23] R Wechsler, 'Computers and Dance: Back to the Future', *Dance Research Journal*, vol. 30, nr. 1, Spring 1998, pp. 4-10.
[24] E Manning, 'Prosthetics Making Sense: Dancing the Technogenetic Body', *Fibreculture*, issue 9, general issue, 2006, viewed on 06 May 2008, Link: <http://journal.fibreculture.org/issue9/issue9_manning.html>.
[25] K Obermaier. Personal communication. 20. May 2007 and 23.May 2007.
[26] Manning, op.cit. Link:
<http://journal.fibreculture.org/issue9/issue9_manning.html>.
[27] K Evert, 'Dance and Technology at the Turn of the Last and Present Centuries', in S Dinkla, M Leeker (eds), *Dance and Technology: Moving towards Media Productions*, Berlin, Alexander Verlag, 2002, p. 44.

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Part V

Critical Philosophies

Consciousness, Embodiment and Communication: Nietzsche's Bioinformatics

Daniel White

Abstract
This essay considers an important dimension of Nietzsche's relevance to cybernetics, communication theory, and informatics. Building on the work of Gregory Bateson, Friedrich Kittler, and Mark Hansen, I argue that Nietzsche's work offers a solution to the 'frame problem' in information theory by positing the body (*der Leib*, *der Körper*) as the *context* or *connection* of consciousness (*Bewusstsein, Bewusstheit*) with human animal nature. Nietzsche's 'genuine phenomenalism and perspectivism' (*eigentliche Phänomenalismus und Perspektivismus*) provide a biological and ecological frame in terms of which to evaluate, renovate, and educate the new spectrum of 'posthuman' identities-in science fiction and fact-produced by electronic communications.

Key Words: Nietzsche**,** Kittler, Informatics, Information, Bioinformatics, Communication, Artificial Intelligence, Frame Problem, Corporeality.

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> Choros
> kai tis tod' exikoit' an angelôn tachos;
> Klutaimêstra
> Hêphaistos Idês lampron ekpempôn selas.[1]

Nietzsche is often thought to have been a *materialist* who challenged *idealism*-even God himself-to Homeric combat. His victory was signalled in the memorable phrase, spoken by his Madman, 'God is dead! God stays dead! And we have killed him!'[2] Instead of opting for dogmatic materialism-the metaphysic underlying 'science'- or idealism-the metaphysic of 'religion'-however, Nietzsche developed an irreducibly pluralistic affirmation of life. He therefore attended to the *language* from which all 'ideas' derive, and he so turned from the 'God' of Christendom to the 'gods' and animate powers of Ancient Greece, like Hephaestus, divine craftsman in the arts of fire (metallurgy), and from divinities to the elemental *signs* (*Zeichen*) which make up the great *cycle* (*Kreislauf*) of nature: not only the 'material' element but also the 'ideational' *messenger* fire (*to pur*) invoked by the rebellious

queen Clytemnestra to signal the end of the Trojan War and the return of her ill-fated husband. For Nietzsche, in brief, the natural and human worlds are material-semiotic configurations cycling in an 'eternal return of the same.' Thus, just as in the emerging field of 'bioinformatics'-'where the relationship between the body and language is reconfigured as a relationship of materiality and data/information,' and communication occurs at a 'cultural site thoroughly enframed by the technological apparatus of computer and telecommunications'-in Nietzsche's texts we and our world are communicative artefacts arising in an endless spiral of cosmic morphogenesis. Here there is no separation between 'material' and 'ideal,' between 'body' and 'mind.'

With the stage and language technology of the Greek theatre in mind, Nietzsche attempted to frame the logical discourse of 'Socratism'[3] and, with it, Modernism, in terms of a mythopoetic language of art as metaphor, which, in turn, he understood as the very *language of the body*. So, in the Dionysian musical festival (dithyramb), he says, '[…] all the symbolic faculties of humankind are stimulated […] a new world of symbols is necessary, a symbolism of the body for once, not just the symbolism of the mouth, but the full gestures of dance, the rhythmic movement of all the limbs.'[4] The language of the body is metaphor, Nietzsche argues, and so 'For the genuine poet, metaphor is not a rhetorical figure but a representative image, which really floats before him in place of a concept.'[5] Metaphors arise, in his account, out of the 'nervous impulses of the body': 'A nerve impulse transferred to an image! First metaphor! The image in turn formed after a sound! Second metaphor! And in each case there is a complete overleaping of spheres, right into the midst of a new and different one.'[6] For the ancient Greek poet, in Nietzsche's view, the image arises from the language of the body and, with it, the inner world of dream: 'The higher truth, the perfection of these [dream] states in contrast to the only partial comprehensibility of everyday reality, the deep consciousness of nature as it heals and helps in sleep and dream is at the same time the symbolic analogue of the capacity for prophecy and of the arts as a whole, which make life possible and worth living.'[7] The language of the body, most fully expressed in the metaphoric idiom of dreams, is the stage upon which 'consciousness' steps to play its role in rationality and logic that determine the discourse-raise the torch-of Enlightenment. In the history of Greek language and literature, the emergence of self-reflective consciousness articulated in prose out of a mythic 'unconscious' of poetic metaphor and religious ritual is an historical antecedent and analogue for the emergence of 'consciousness' out of the 'frame' of the human brain or the computer (artificial intelligence) in communication theory.

The 'frame problem' in artificial intelligence is defined as 'the problem that arises when a robotic system is being designed to utilize

information picked up by sensors from the environment. Since sensory input can be interpreted in an infinite number of ways, the robot must be programmed with an interpretive 'frame' to access usable aspects of the information.'[8] In other words, sensory information can take on meaning only in the context of a set of framing assumptions. In the language of Nietzsche's *Birth of Tragedy,* consciousness arises as the mind's 'dialogue,' emerging out of the Chorus's dithyrambic poetry. The 'frame problem' in information theory raises an issue analogous to Nietzsche's framing of ancient logical discourse in terms of poetry: is poetry, which is the 'language of the body,' the 'frame' for dialogue and its 'logic' the language of the 'mind'? Mark Hansen addresses the idea of framing in his critique of Friedrich Kittler's idea of 'digital convergence.'

Here the increasing extension of computerized media 'dedifferentiates' the various embodiments of traditional signal conveyance so that the audio recording, the photograph, the film, and the televisual image all increasingly 'converge' into to the same binary code as 'information.' While digital convergence may make for great home entertainment systems based on digital media, the end result might not, in Kittler's view, be so appealing: 'Without reference to the individual or to mankind, communication technologies will have overhauled each other until finally an artificial intelligence proceeds to the interception of possible intelligences in space.'[9] Thus, I assume, not only the media inside our new stereos but also the listeners outside will become assimilated to the new artificial intelligence running the global communications network, leaving old-fashioned 'us' out of the picture. Nevertheless, Hansen argues, the syntax of binary coding takes on *meaning* only in terms of the context out of which it is sent and that by which it is received: the ear to the telephone, the viewing eye of the embodied user in front of computer monitor who interprets the 'signal' on the screen as a 'word,' or the pattern of coloured pixels as an 'image'. Therefore, he argues, following French cyberneticist Raymond Ruyer, '[…] information always requires a frame (since framing is essential to the creation of information) and […] framing always originates in the meaning-constituting and actualizing capacity of (human) embodiment.'[10] The epistemic picture that Hansen sketches includes information as contextualized by consciousness, and consciousness in turn as framed by the embodied brain. It is the connection between 'consciousness' and 'embodiment' that Nietzsche's work critically informs.

Two key texts for understanding Nietzsche's somatic vision of consciousness and 'digital' or 'logical' encoding appear in *Die fröhliche Wissenschaft* (*The Gay Science*). In the passage entitled *Bewußtsein* (lit. 'being-in-a-state-of-awareness-of,' i.e., 'Consciousness'), he presents his basic conception, sketching an evolutionary portrait of the mind similar to his cultural-historical account of it in ancient Greece. Nietzsche views 'mind'-

more specifically 'consciousness' (*Bewußtsein, Bewußtheit*)-as 'framed' by 'instinct' and the set of somatic adaptations that it represents. Thus 'Consciousness is the last and latest development of the organic,' Nietzsche says, and so, as a recent evolutionary adaptation it is 'least finished' and 'least strong' (*das Unfertigste und Unkräftigste*); it therefore gives rise to 'countless errors which make an animal, a man, perish sooner than necessary.'[11] There are two basic assumptions that Nietzsche makes here: first, consciousness has been structurally derived from the human body in the course of its evolution; second, that the more fundamental features of evolutionary development are less prone to error-i.e., have been through a longer series of adaptive trials and so have been more thoroughly purged of misinformation through natural selection. As an evolutionary newcomer, consciousness is not yet a reliable feature of human existence.

Invoking a cybernetic metaphor worthy of Gregory Bateson,[12] Nietzsche observes about consciousness: 'If the preserving alliance of the instincts were not so much more powerful, if it did not serve on the whole as a regulator, humanity would have to perish with open eyes of its misjudging and its fantasizing, of its lack of thoroughness and its incredulity-in short, of its consciousness; or rather, without the instincts humanity would long have ceased to exist.'[13] He goes on to argue here that consciousness and the forms of knowledge it produces are superfluous in comparison with instincts, even though it is often thought to be the 'kernel' of humankind. Nietzsche picks up this same theme later in the same book, under the heading '*The 'Genius of the Species.'*'[14] 'The problem of consciousness […] first confronts us when we begin to realize how much we can do without it […],' he argues. 'All life would be possible without, as it were, seeing itself in the mirror.' This observation raises the question, '*To what end* does consciousness exist at all when it is basically superfluous?' Nietzsche's answer, in light of his aforementioned evolutionary perspective, is, '[…] the subtlety and strength of consciousness is always related to a person's (or animal's) *ability to communicate*; and the ability to communicate, in turn, to the *need to communicate.*' In a second metaphor, turning from the 'mirror,' Nietzsche refers to consciousness as a 'net connecting one person with another.' Crucially, he goes on to argue that conscious thinking is only a minor part of the thinking done by our bodies: 'the thinking that becomes conscious is only the smallest part of it, let's say the shallowest, worst part.' He goes on to explain the reasons for this superficiality, beyond the evolutionary lateness of the development mentioned above: 'for only conscious thinking *takes place in words, that is, in communication symbols.'* Thus '[…] consciousness actually belongs not to man's existence as an individual but rather to the community- and herd-aspects of his nature.' Nietzsche's assumption here, as he clearly reveals, is, 'At bottom, all our actions are incomparably and utterly personal, unique, and boundlessly individual,' but, the problem with

consciousness is, 'as soon as we translate them [our individual actions] into consciousness, *they no longer seem to be*.' Thus he concludes by defining a key feature of his philosophical outlook: 'This is what I consider to be true phenomenalism and perspectivism: that due to the nature of *animal consciousness*, the world of which we can become conscious is merely a surface- and sign-world […] that everything which enters consciousness thereby *becomes* shallow, thin, relatively stupid, general, a sign, a herd-mark.'[15] Thus in Nietzsche's view individual embodiment constitutes the foundational evolutionarily established 'genius' of the species which, due to the necessary interdependence of our individual existences, becomes a 'net' binding us into a 'community' but only based on what is most superficial and, as he goes on to argue, 'falsifying' in our actions.[16]

Both Bateson and Nietzsche thought that the massive expansion of the superficial power of consciousness, through what Jürgen Habermas calls the *rationalization of the lifeworld*,[17] has in significant part *defined* modernity. The pervasive 'disenchantment' (*Entzauberung*) of human experience wrought by modern systems of economy and society could only be countered by a figurative reintroduction of the Chorus to advise the Promethean Hero that his enlightening fire might burn out of control. In terms of cybernetic technologies, particularly the visionary realm of cyberspace, recovery of the mythic lifeworld would mean the reintroduction of the language and constraints of the body in the virtual realm that would seem to transcend ' it' and, in cyberpunk fiction as defined by William Gibson's classic novel *Neuromancer,* leave it back home as 'meat' in earth's locker.[18] As in Mark Hansen's vision of a re-embodied cyberspatial domain, so in Nietzsche's view the realm of Socratic logic can be joined to and constrained by the Dionysian languages of the body.

Hansen describes the physical-virtual media installations of Jeffry Shaw, one of which is set in the *Ruhrgebiet* (a region along the Rhine river undergoing 'postindustrialization' with 13.3% unemployment), situating the viewer-participant in such a way that virtual imagery of the panorama is so closely connected with one's actual view of it that the virtual navigator is able via a joystick to make a 'homeothetic' transition into cyberspace while still retaining a sense of bodily location, comportment, ambience, and kinetic control grounded in natural space: 'yielding an exhilarating indifferentiation between your 'subjective' embodied movement and the 'objective' mechanical movement of the image.'[19] Nietzsche, with his characteristic bravado, tried a similar coadaptation with the new communication machine, the typewriter, on which he began to compose, in the 1880's, comprehending the device through poetry: 'The writing ball is a thing like me: of iron / And still easy to twist on journeys. /Patience and tact must one amply possess / And delicate fingers, to use us.'[20]

Returning to the cybernetic perspective of Raymond Ruyer, Hansen argues, 'Shaw's recent works give aesthetic form to the trajectory traced by Ruyer's critique of cybernetics: the movement from the technical frame (the image) to a confrontation with its constitutive condition of possibility, the (human) framing functions.'[21] And so, on the new stage of cyberspace consciousness reconstructs itself as in a digital mirror returning to the kinesthetic embodiment from which it once fled. Nietzsche's way of reinvoking the body was to insist that he could only think well while *walking*. So, in a characteristically well grounded passage, he seems to transfigure himself and his readers *into* the living world: 'We (godless ones) want to have *us* translated into stone and plants; we want to take walks *in us* when we stroll in these hallways and gardens.'[22]

Notes

[1] 'Chorus: And what messenger might come at this speed? Clytemnestra: Hephaestus sending out the fiery lamp from Ida' (author's translation), Aeschylus, Agamemnon, lines 280-281.

[2] Citations of Nietzsche's German texts are from Nietzsche, *Kritische Studienausgabe*, G Colli and M Montinari (eds), de Gruyter, Berlin, 1999, 15 vols. Unless otherwise noted, translations are author's. The passage cited is from *Die fröhliche Wissenschaft* (*The Gay Science),* Book 3, sec. 125, *Kritische Studienausgabe*, vol. 3, p. 480.

[3] *Die Geburt der Tragödie,* 'Versuch einer Selbstkritik', Part 1, *Kritische Studienausgabe*, vol. 1, p. 12.

[4] *Birth of Tragedy*, sec. 2, Smith (trans), p. 26.

[5] *Kritische Studienausgabe*, vol. 1, p. 57, *Birth of Tragedy* sec. 8, author's translation, cf. Smith p. 49.

[6] *Kritische Studienausgabe*, vol. 1, p. 879.

[7] F Nietzsche, D Smith (trans), *Birth of Tragedy,* Oxford University Press, Oxford, 2000, p. 21; *Kritische Studienausgabe*, vol. 1, pp. 27-28, *Birth of Tragedy*, sec. 1.

[8] F F Steen., *Cognitive Cultural Studies, Glossary*, Cogweb, 1997, 20 Sept., 2008, Link: <http://cogweb.ucla.edu/ep/Glossary.html>.

[9] F Kittler, 'The History of Communication Media,' *Ctheory*, 30 July, 1996, 20 September 2008, Link: <http://www.ctheory.net/articles.aspx?id=45>.

[10] M Hansen, *New Philosophy for New Media*, MIT Press, Cambridge, 2004, p. 83. Also see Raymond Ruyer, *La Cybernétique et l'origine de l'information*, Flammarion, Paris, 1954.

[11] *Die fröhliche Wissenschaft* (*The Gay Science),* Book 1, sec. 11 and Book 5, sec. 54, *Kritische Studienausgabe*, vol. 3, pp. 382-383 and pp. 590-593.

[12] G Bateson, *Steps to an Ecology of Mind,* Aronson, Northvale, New Jersey, 1987.
[13] *Gay Science: With a Prelude in German Rhymes and an Appendix of* Songs, Josephine Nauckhoff (trans), Cambridge University Press, Cambridge, 2001, Book I, sec. 11, p. 37.
[14] *Gay Science,* Nauckhoff (trans), Book V, sec. 354.
[15] Op cit., pp. 211-213, italics in original.
[16] Op cit., p. 214.
[17] J Habermas, *The Theory of Communicative Action,* 2 vols., T McCarthy (trans), Beacon Press, Boston, 1984, vol. 1, pp. 145-148.
[18] W Gibson, *Neuromancer*, p. 6.
[19] M Hansen*, New Philosophy,* p. 47.
[20] *Nachgelassene Fragmente* (*Unpublished Fragments*), Feb.-Mar. 1882, *Kritische Studienausgabe*, vol. 9, p. 673.
[21] Hansen, *New Philosophy*, pp. 83-84.
[22] *Gay Science,* IV, sec. 280, Nauckhoff trans. *Kritische Studienausgabe*, vol. 3, p. 525.

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Technoscientific Schizophrenia vs. Technoscientific Paranoia: Subsumption in the Schizoid Double Pull

Tamar Sharon

Abstract
In line with Deleuze and Guattari's analysis of paranoia and schizophrenia as the effects of the fundamental organizing principles of capitalist society, Rosi Braidotti identifies what she calls a 'schizoid double pull,' the co-occurrence of contradictory or incompatible trends, as one of the distinctive traits of our age. I will present a reading of contemporary technoscience as a manifestation of this double pull. In this framework, the potentially innovative, liberatory and deterritorializing impact of new technologies, the 'schizophrenic' or 'postmodernist' tendencies of cyborg sciences that might indicate a shift towards a posthuman and post-anthropocentric paradigm, come up against 'paranoid' or 'modernist' tendencies that seem to appropriate this transgressive or subversive potential. The nature of this double pull, I will suggest, is only paradoxical to a certain extent - it is more productive to theorize it within a dialectic framework. In other words, the schizoid/postmodern and paranoid/modern tendencies of the cyborg sciences are not fixed in a relation of strict opposition, rather, they coexist in a non-exclusive manner and are ultimately subsumed in contemporary technoscience which is neither explicitly postmodern nor explicitly modern but itself collapses the border between and hybridizes these two. Thus, the most characteristic attribute of the cyborg sciences is not only the breaching of the natural/social and human/inhuman dichotomy, but the actual breakdown of the schizoid/paranoid dichotomy as well. Such a reconceptualization of contemporary technoscience can provide an explanation for the seeming continual containment or capture of the positive potential within cyborg sciences, it can act as a first step in identifying contemporary technoscience as the manifestation of a new configuration of power and thus contribute to the pressing conceptualization of new forms of resistance.

Key Words: Technoscience, Schizophrenia, Cyborg Science, Posthuman, New Reproductive Technologies, GMOs, Psychopharmacology.

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1. Introduction

In *Anti-Oedipus*, Gilles Deleuze and Félix Guattari identify schizophrenia and paranoia as the fundamental organizing principles of capitalist society. In this framework, schizophrenia designates an absolute decoding of flows, unrestrained desire and the potential for freedom and permanent revolution. Paranoia, in contrast, designates a reactionary dynamic that strives to absorb subversive schizophrenic energies by reterritorializing and recoding desire within social organization or normalizing institutions. Here I would like to extend Deleuze and Guattari's schizoanalysis to contemporary technoscience, through several examples of 'cyborg sciences' - those sciences that straddle the divide between the animate and the inanimate, the human and the inhuman and the natural and the social.

In this reading, the 'schizophrenic,' or what we might call 'postmodernist,' tendency of contemporary technoscience lies in the potentially innovative, liberatory and deterritorializing impact of new technologies; tendencies that might indicate a shift towards a posthumanist and post-anthropocentric paradigm, what some theorists see as an overcoming of modernity. But this schizophrenic force seems to continuously come up against technoscience's 'paranoid' or 'modernist' drive that captures and reterritorializes any transgressive or subversive potential new technologies might have. Technoscience thus emerges as a manifestation of what Rosi Braidotti has called the 'schizoid double pull,'[1] the co-occurrence of contradictory or incompatible trends, which she has identified as one of the distinctive traits of our age.

I would like to suggest, however, that the nature of this double pull is only contradictory, or paradoxical, to a certain extent. The schizoid/postmodern and paranoid/modern tendencies found within technoscience are not fixed in a relation of strict opposition, rather, they coexist in a non-exclusive manner and are ultimately subsumed in contemporary technoscience - which is neither explicitly postmodern nor explicitly modern but itself collapses the divide between these two. Cyborg sciences, as paradigmatic examples of today's technoscience, are not only characterized by the breaching of the natural/social and human/inhuman dichotomy, then, but by the actual breakdown of the schizoid/paranoid dichotomy as well.

There is always something slippery about that which is new. Its relative nature makes it extremely difficult to grasp in terms that do not refer back to that which precedes it. The reading of technoscience that I am proposing reconceptualizes it as a manifestation of something new, neither the explicit continuation of the modern paradigm, nor its overcoming in a postmodern paradigm, nor the prelude to this overcoming. I will begin with a short discussion of technoscience's schizophrenic potential and then offer several examples that illustrate the compatible, rather than exclusive,

coexistence of schizophrenic and paranoid tendencies in several cyborg sciences, namely, assisted reproductive technologies, research in genetically modified organisms, and the life sciences and psychopharmacology.

2. The Schizophrenic Potential of Contemporary Technoscience

In recent decades, developments in biological, cybernetic and digital technologies have increasingly complicated traditional notions of the natural and the artificial, as well as human and non-human nature. Advanced technologies such as genetic manipulations, organ transplantation, expanding cosmetic surgeries, artificial intelligence, an array of new psychopharmaceuticals and new reproductive technologies, are engendering the prospect of technologically enhanced humans, intelligent machines and modified nature. For many critical theorists of cyborg and posthuman thought, these new technologies have the potential to contest the modern 'paradigm' or 'project'.[2] These theorists often see these technologies as contesting modernity in several ways: by challenging the binary oppositions that underpin Western systems of thought, by undermining the foundational authority of nature, and by introducing models of nonlinearity and indeterminacy.

This is the liberatory and political potential that I am calling technoscience's 'schizophrenic' or 'postmodern' tendency. The boundary transgressions characteristic of cyborg sciences - between the natural and the artificial, the technological and the organic, reality and non-reality - lead to the collapse of the model of binary, oppositional thought which is held as the basis of the central logic of modern domination and exclusion. Such breakdowns, furthermore, call into question the very notion of original, essentialist categories, of the idea of the genetic integrity or unity of an organism. In this way they also destabilize the traditional understanding of nature as a stable, foundational concept (as well as its historical use as a measuring stick for morality and normality). In this reshuffling of foundational terms, the category of the human is also rendered instable, to the point that what Elaine Graham calls the 'ontological purity' that has informed the normatively human in Western thought can no longer be sustained.[3] Indeed, contemporary technologies in which boundaries between human and non-human and human and environment are no longer clear, are evidence that the unified, autonomous and self-directed subject of classical liberal humanism is not only undergoing a crisis in theoretical terms, but also in material terms. From the posthuman body that will no longer adapt to the disciplining institutions of modern sovereign biopower, to the deterritorialized non-place of cyberspace, contemporary technoscience offers privileged sites of resistance, and seems to herald a postmodern, posthuman and post-anthropocentric paradigm.[4]

3. The Paranoid Trend

Information and biotechnologies, however, are much more than the sum of their potentialities. Amid the cyborgs and the transgenic creatures, the 'translated' hybrids of technoscience, we find a strong paranoid tendency in contemporary technoscience alongside its schizophrenic potential. This paranoid drive includes a return of master narratives, such as technological mastery and scientific progress as the overriding form of human progress, or the transhumanist narrative of the inhuman character of the current evolution of the human species; it includes widespread discourses of genetic reductionism and biological essentialism; and it includes the continuation of normalizing and conservative tendencies.

One could conceptualize this as the gap between technoscience's potential and its praxis, but such a potential/praxis dichotomy is limiting. While it may seem like these schizophrenic and paranoid tendencies are incompatible they rather coexist quite peacefully. I would like to suggest that this coexistence implies that we are dealing with a *new* structure of power in contemporary technoscience, one that already incorporates, subsumes, and maybe even resolves the schizophrenic/paranoid or postmodern/modern opposition, one that we might tentatively call 'post-postmodern.'

4. Compatible Schizoid and Paranoid Trends

Let us now take a look at how technoscience incorporates and renders compatible schizophrenic and paranoid trends through a few material examples.

Assisted reproductive technologies (ARTs) are a clear example of our schizoid double pull. As highly technologized forms of intervening in nature, they render problematic the naturalness of processes of conception and gestation.[5] By completing the dissociation between sex and reproduction, these technologies also theoretically expand categories of parenthood beyond reproduction by means of strictly heterosexual intercourse (to gay, lesbian and transgender couples and single parents).[6] Nature as a foundational concept that defines strict borders is twice unsettled here: first as 'natural,' biological reproduction, and second, as what a natural reproductive unit is. The broad array of partnerings and possibilities for reproduction that can disrupt heteropatriachal kinship structures represent the schizophrenic potential of ARTs.

Most feminist theorists, however, are wary of the effects and the uses of ARTs.[7] For these theorists, the paranoid tendency of ARTs is expressed by several components. Processes of isolation and visualization of reproductive organs assume a simultaneous 'invisibilization' or effacement of the maternal body. This displacement of organs from their lived and embodied context has both the effect of erasing women's subjectivity as well as providing sites for increased medical control and intervention.

Furthermore, while these technologies do help challenge a naturalist notion of reproduction, freeing parenthood from some of its traditional biological restraints and from a strictly heterosexual conception of reproduction, medical, legal and moral rhetoric contribute to maintaining and institutionalizing a conservative network of reproduction and the structure of the nuclear family. Thus the proliferation of new opportunities for parenthood, no longer based on 'biological' or natural suitability, can be thwarted by selectivity that is based on social suitability. While new possibilities are opened up by the unsettling of 'nature' - here as natural reproduction - a simultaneous 'renaturalization' of reproduction can take place along lines of social conformity.

A similar dynamic is at work in processes of genetically modified organisms. On the one hand, these processes advocate a rhetoric of nature as originally hybrid and constructivist, of plant identity as always having been the result of a dialogue between nature and culture. This assumption is what legitimizes from the outset the creation of transgenic breeds, and underlies many biotech companies' claims that crops genetically modified in a laboratory need not be distinguished from plants genetically modified 'in nature.'

But while the transferring of genes between species transgresses natural barriers, compromising species integrity, the boundary between the human and its other is left unchallenged: the nature/culture divide is re-established in a rhetoric of regulating, improving and even perfecting nature for the sake of humanity. 'Improving' on nature, of course, requires a certain distance between an acting agent and what is supposed to be a passive natural world. It hence reinforces the modernist narrative of scientific progress as the domination and exploitation of nature as inanimate matter. Furthermore, this distinction is foundational for the creation of patenting laws, and the reconfiguration of organisms as human inventions in the framework of the paranoid drive towards commodification.[8]

Many theorists have commented on the collapse or overcoming of the modernist illusion of the nature/culture divide. But if the reconfiguration of notions such as nature and culture, natural and artificial, that is taking place in contemporary technoscience undeniably points to a malleability of nature that unsettles its foundational authority (and thus expresses a schizophrenic tendency); it does not indicate a *real* collapse of the nature/culture binary. This relationship has not so much imploded, as it has been refigured, in processes where nature is in effect de-naturalized, but also, through a paranoid drive, re-naturalized - I am borrowing the term from Franklin, Lury and Stacey in their book *Global Nature, Global Culture*.[9] Nature is no longer the fixed guarantor of 'natural' borders of sex, race, gender and the human body. And likewise culture is no longer a wholly constructivist concept at a time when it is being biologically reproduced in

the life forms of patented property. In this framework the authority of nature is undermined but it is also reincarnated. This process does not contain the schizophrenic potential of a non-essentialist notion of nature, but incorporates it and thrives on it.

The schizophrenic or postmodernist and paranoid or modernist lines of escape and capture merge in the life sciences as well. Molecular biology today offers an understanding of human life at the molecular level, a level at which everything appears intelligible and open to calculated intervention and control, where entities can be identified, isolated, manipulated and recombined. This 'molecularization of life,' and the geneticization of human identity that accompanies it, is clearly an expression of the paranoid or modernist pole of our schizoid double pull. But while it reduces aspects of human conduct and identity to biology, it simultaneously unsettles the notion of nature that modern biology was traditionally based on. Here is where the schizophrenic tendency of the life sciences manifests itself. Molecularized nature is malleable nature. In the understanding of health and disease, normality and pathology that is advanced by contemporary biosciences, one's identity is reduced to biology, yes, but biology is always open to intervention - and amenable to choice.[10] This is to say that the new life sciences, while advancing a discourse of determinism because, in effect, individuals are seen as being in great part determined by their biological makeup, see this determinism as a *starting* point rather than an *end* point, as opening up, to quote Nicolas Rose, 'a space of uncertainty, not certainty,' where 'biology is not destiny but opportunity.'[11]

Psychopharmacology and SSRIs (serotonin selective reuptake inhibitors) like Prozac are a case in point. Based on a materialist understanding of mental disorders and by extension an understanding of notions such as mood and personality as informed by a biological infrastructure, they offer a rhetoric that reduces personhood to biology. As in the life sciences, here biology - read nature - is also associated with malleability, and determinism also opens up pathways to choice; yet the notion of authenticity, in the sense of an 'authentic' or 'real' self, is interestingly enough *not* disrupted by the destabilizaiton of the notion of nature (biology).[12] Such psychiatric drugs can promise a return to, or a restoration of, a 'real self' - rather than the creation of a 'new self' - specifically because biochemical interventions can no longer be considered artificial once nature has been dislocated. Technological interventions that assist one in becoming one's 'true' or 'real' self are thus not seen as tainting that authenticity.[13] In the reshuffling of foundational terms that occurs in contemporary technoscience, some essences remain intact even while the very notion of essence is confused.

5. Conclusion

I have attempted to present technoscience as a manifestation of the schizoid double pull, informed by the coexistence of schizophrenic or postmodernist and paranoid or modernist trends. Technoscience's schizophrenic tendencies challenge the hierarchical binary oppositions and essentialisms that underpin Western systems of meaning and the liberal humanist subject, and they undermine the foundational authority of nature. At first glance this schizophrenic potential seems to be contained or repressed by technoscience's paranoid tendencies: discourses of genetic reductionism and determinism, the renaturalisation of nature, the increasing potential for normative, discursive control and conformism. The scope of this paper only allowed me to present several, brief examples of this technoscientific double pull. But its expressions are abundant, in fields as various as complexity thinking in biology - where nonlinear, emergent and dynamic systems exist alongside reductionism, a persistent expectation of control and the search for a new kind of causality - and cyberspace - where the potential to challenge unitary identity formation coexists alongside the continuation of a Cartesian mind/body dualism.

But conceptualizing the schizoid double pull as a paradox prevents us from grasping the real dynamic at work in contemporary technoscience, where schizophrenic/postmodernist and paranoid/modernist tendencies are compatible and often work together. It is only once we recognize this that we can begin to conceive of technoscience not as a manifestation of the continuation of the modern paradigm, or as a clear break with modernity in the form of a postmodern paradigm, but as something that emerges and ultimately transcends the opposition between these two.

Notes

[1] R Braidotti, *Transpositions*, Polity Press, Cambridge, 2006.

[2] I am referring to 'cyborgologists' and 'critical posthumanists' such as Neil Badmington, Anne Balsamo, Elaine L Graham, Chris Hables Gray, Judith Halberstam, Donna J. Haraway, Katherine Hayles and Catherine Walbdy (this list is not exhaustive). As opposed to 'liberal posthumanists' or transhumanists, such as Nick Bostrom, James Hughes, Ray Kurzweil or Marvin Minsky.

[3] E L Graham, *Representations of the Post/Human: Monsters, Aliens and Others in Popular Culture*, Rutgers University Press, New Brunswick, NJ, 2002.

[4] In their discussion on how the 'new barbarians' can counter Empire, for example, Michael Hardt and Antonio Negri claim, '[t]he will to be against needs a body that is incapable of adapting to family life, to factory discipline,

to the regulations of a traditional sex life, and so forth.' M Hardt and A Negri, *Empire*, Harvard University Press, Cambridge, MA, 2000, p. 216.
Also, a number of critical theorists stress the positive and empowering impact of new virtual, artificial environments, and their potential to challenge power formations and unitary identity formation. See also, for example, N K Hayles, 'The Seductions of Cyberspace' in V Conley (ed), *Rethinking Technologies*, University of Minnesota Press, Minneapolis, 1993; A Kroker and M Weinstein, 'The Hyper-Texted Body, or Nietzsche Gets a Modem' in *ctheory*. November1994, viewed on 21 January 2006, Link: <http://www.ctheory.net/articles.aspx?id=144>; S Plant, 'The Future Looms: Weaving Women and Cybernetics' in M Featherstone and R Burrows (eds), *Cyberspace/Cyberbodies/Cyberpunk: Cultures of Technological Embodiment*, Sage Publications, London, 1995, pp. 45-64; M Poster, 'The Information Age'. *Comparative Literature Studies*, vol. 41, issue 3, 2004, pp. 317-334; S Stone, 'Split Subjects, Not Atoms; or How I Fell in Love with My Prosthesis' in G H Gray (ed), *The Cyborg Handbook*, Routledge, NY, 1995; and S Turkle, *Life on the Screen: Identity in the Age of the Internet*, Simon & Schuster, NY, 1995.

[5] M Strathern, *Reproducing the Future: Essays on Anthropology, Kinship and the New Reproductive Technologies*, Manchester University Press, Manchester, 1992.

[6] Graham, op. cit.

[7] See for example, A Balsamo, *Technologies of the Gendered Body: Reading Cyborg Women*, Duke University Press, Durham and London, 1996; R Braidotti, *Nomadic Subjects: Embodiment and Sexual Difference in Contemporary Feminist Theory*, Columbia University Press, New York, 1994; H Rose, *Love, Power and Knowledge: Towards a Feminist Transformation of the Sciences*, Polity Press, Cambridge, 1994; M Shildrick, *Leaky Bodies and Boundaries: Feminism, Postmodernism and (Bio)Ethics*, Routledge, London, 1997; C Stabile *Feminism and the Technological Fix*, Manchester University Press, Manchester, 1994; and J Wajcman, *Feminism Confronts Technology*, Penn State University Press, Pennsylvania, 1991.

[8] For a good discussion on GMOs and patenting laws, see D Haraway, *Modest_Witness@Second_Millenium. FemaleMan©_Meets_Oncomouse™: Feminism and Technoscience*, Routledge, New York, 1997, and V Shiva, *Biopiracy: The Plunder of Nature and Knowledge*, South End Press, Boston, 1997.

[9] S Franklin, C Lury and J Stacey (eds), *Global Nature, Global Culture*, SAGE, London, 2000.

[10] Both Mariam Fraser and Nicholas Rose discuss this 'opening up' of biology. See M Fraser 'The Nature of Prozac'. *History of the Human*

Sciences, vol. 14, issue 3, 2001, pp. 56-84, and N Rose, *The Politics of Life Itself: Biomedicine, Power, and Subjectivity in the Twenty-First Century*, Princeton University Press, Princeton, NJ, 2007.

[11] Rose, op. cit., p. 52,51.

[12] Patients prescribed Prozac often speak of 'being themselves again,' while taking it, or 'no longer themselves' off it, of having located a self that is 'true,' 'normal,' or 'whole.' See P Kramer, Listening to Prozac: A Psychiatrist Explores Antidepressant Drugs and the Remaking of the Self, Penguin, New York, 1993. Rose, op. cit., also notes that psychiatric drugs promise a return to a 'real self' rather than the creation of a 'new self.'

[13] This is similar to the dynamic at work in sex conversion technologies: while the transsexual subject subscribes to an essential genderized self that was 'born into the wrong body,' technical intervention is necessary in order to give that authentic self full expression.

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Part VI

The Literature of Cyberspace

Gender Resistance: Interrogating the Punk in Cyberpunk

Katherine Harrison

Abstract
In this paper, I examine two cyberpunk texts to assess whether their apparent resistance to mainstream society includes resistance to gender stereotypes. Writing from a feminist perspective, I suggest that much of the disruptive potential of this genre is derived from its integration of 'punk' as a discourse or practice of resistance to social 'norms'. I focus on Candas Jane Dorsey's short story '(Learning About) Machine Sex' and Neal Stephenson's novel *Snow Crash*. I have deliberately chosen texts whose relationship with first-wave cyberpunk is complicated either by an explicitly feminist standpoint (Dorsey) or a generational distance (Stephenson), in order to assess whether these authors avoid or succumb to the same critiques levelled at early cyberpunk about gender representation. I am concerned with who and what these texts are resisting, and how this resistance is performed. This line of enquiry, however, also demands a closer examination of the positive connotations attached to 'resistance' in cyberpunk, and, consequently, to ask whose interests are not represented. To do this, I use the disruptive associations of 'punk' as a tool, looking not only at particular themes of resistance within the text, but also how the authors' innovative stylistic manoeuvres resist genre conventions.

Key Words: Gender, Cyberpunk, Dorsey, Stephenson, Technology, Punk.

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Cyberpunk - a subgenre of science fiction - mixes up the technophilia of cyberculture with the anti-establishment attitude of punk, resulting in a number of recognisable characteristics in its texts, including 'hybrid' identities, dystopian futures, and a focus on technology. This focus often upsets any easy distinction between human and machine, while its alternative (cyborgian) identities perhaps offer new paradigms for thinking about gender.[1] My premise in this paper is that the disruptive potential of this distinctive subgenre is derived from its adoption of 'punk' as a discourse or practice of resistance to social 'norms'. In this paper I am going to use the well-documented focus within science fiction on language and style to interrogate the 'punk' in 'cyberpunk',[2] and to ask to what extent it is effective as a means of resisting normative models of technology and gender. To do

this, I use close textual analysis of two cyberpunk texts: *Snow Crash* by Neal Stephenson and '(Learning About) Machine Sex' by Candas Jane Dorsey.

What do these texts offer which is different from better known cyberpunk texts, such as William Gibson's *Neuromancer*? *Neuromancer* epitomises many features of the genre, its narrative structured around a plot to remove the electronic restraints that prevent an Artificial Intelligence from functioning independently of its human owner. The main protagonists are a male hacker called Case, and a 'razorgirl' (a technologically-enhanced hired assassin) called Molly. It uses a number of tropes that associate it with popular perceptions of punk, including a 'DIY' approach to technology, resistance to authority, street slang and tribal dress codes. The narrative raises many of the hopes and fears associated with new technologies, from the euphoria of online disembodiment to the possibilities for bodily enhancement through medical technology. It also highlights some of the problematic aspects of the genre in terms of gender representation.

Wendy Wahl, writing in 'Bodies and Technologies: *Dora, Neuromancer,* and Strategies of Resistance', notes that, 'Case doesn't seem to have a body unless he is inside Molly, either in sex or sim/stim […] Molly is the body. Case can jack out any time.'[3] More recently, June Deery, in her comparison of Gibson's and Marge Piercy's work, was equally damning when she suggested that in his writing we see 'the world of macho, hardboiled console cowboys on the wild frontier, mercenary loners who try to outmaneuver each other with the latest weaponry and gadgetry.'[4] The unproblematised connection between man and mind, and woman and body, together with the 'macho' discourse of the frontier may limit the potential of Gibson's work when considering it in relation to resistance to gender norms. The texts by Stephenson and Dorsey, however, perhaps offer a new twist on the genre; Stephenson's novel is considered 'second-generation' cyberpunk, while Dorsey's short story is explicitly billed as a feminist parody of cyberpunk. Does this distance from classic, 'first-wave' cyberpunk produce more challenging gender representations?

Stephenson's novel, *Snow Crash,* tells the story of a computer hacker called Hiro Protagonist and Y. T., a skateboard courier.[5] Set in a recognisable future 'America', Stephenson's novel brings together perennial cyberpunk themes such as life online with contemporary social anxieties about bodily boundaries, religious fundamentalism, migration and global corporatisation. The plot of the novel is centred on Hiro and Y. T. uncovering a plot to kill hackers using a new virus called 'snow crash'. Y. T. and Hiro track the source of 'snow crash' over the course of the novel, with the action slipping easily between online and offline action.

In the short story, '(Learning About) Machine Sex',[6] Dorsey's protagonist is a programmer called Angel who designs an Artificial Intelligence. Disillusioned when the small company for which she works is

sold to a larger corporation, Angel responds by designing a program called 'Machine Sex'. This is based on the idea that orgasm can be programmed and the text traces Angel's development of the hardware she dubs the 'Mannboard' and accompanying software ('Machine Sex'); this hardware-software combination results in a piece of equipment with touch pads through which the user is effectively 'programmed' to orgasm.

In both texts, the protagonists are portrayed as not wishing to ascribe to society's norms, through anti-corporate attitudes as well as a number of other aesthetic cues such as dress or behaviour. This paper will be particularly concerned with examining how this 'resistance' operates specifically in relation to gender, using 'punk' as a way in to do this. I open by interrogating the term 'punk' before moving on to an examination of the texts themselves.

1. Interrogating 'Punk'

Cyberpunk explicitly sets out to upset preconceived notions of identity and 'a good life', by proffering different values that highlight alternative ways of being.[7] Apart from its obvious status as part of the title of the genre in question (cyber-*punk*), the anarchic disrespect for authority associated with the punk ethos also seems to echo certain elements of feminist resistance to patriarchy in its ferocity and challenge to social norms.[8] Popularised in the 1970s by bands such as the 'Sex Pistols', punk emerged as a lifestyle, a commodity – music, dress and behaviours that were designed to shock, to upset norms, as well as a different approach to aesthetics. Then, in the 1980s, the anti-establishment attitude of punk met the Internet.

When Gibson wrote *Neuromancer* on a typewriter in the early 1980s, computers were technologies of which people were aware. However, they were still several years away from being freely available and a regular fixture in the 'average' home. This distance from lived reality resulted in heightened fears and expectations of what this new technology would offer, and cyberpunk is the result of the meeting of this hyperimaginative response to new technologies (and the Internet in particular) and the anti-establishment approach of punk. Locating this subgenre chronologically and culturally is important when considering what 'resistance' might mean in this particular context. In particular, these texts reflect concerns with corporatisation as well as an aesthetic (bodily) resistance to the mainstream.

Making visible socio-historical contexts helps when considering whose interests are not recognised by the form that resistance takes. In his article, 'L.A.'s 'White Minority': Punk and the Contradictions of Self-Marginalization',[9] Daniel S. Traber draws attention to the way in which race was used by the L.A. punks as a way for white punks to distinguish themselves from the 'privileged white youth.'[10] However, Traber is keen to stress that these positionings implicitly reinforce the idea of the middle-class,

white male as the 'norm' in a move that undermines some of the radical potential of punk: 'this subculture claims to desire dissonance and destabilization, but it depends on boundaries and regulatory fictions staying in place to define itself as oppositional.'[11]

Bearing this in mind, it is also worth considering how women have been located in relationship to the punk movement. Writing in ''A little too ironic': The Appropriation and Packaging of Riot Grrrl Politics by Mainstream Female Musicians', Kristen Schilt traces the history of the 'riot grrrl' movement from its punk founding mothers, through the era of bands like Bikini Kill, to mainstream 'angry' female musicians such as Alanis Morrisette. Schilt notes the connection between the 'founding women'[12] of riot grrrl and punk, explicitly framing punk as 'parent' discourse, one which facilitates and validates Riot Grrrl messages. However, through analysis of lyrics from female bands and artists, Schilt shows how the original punk messages of the Riot Grrrl movement moved into mainstream popular culture, finally emerging in the diluted form of 'The Spice Girls' and 'Girl Power'. In light of this, her conclusion is unsurprisingly gloomy, noting that while 'the anger towards patriarchy is present, the discussion of sexual abuse, and even acknowledgement of female desire,'[13] positive action for women seems to have got lost *en route*.

With these concerns about 'punk', and by extension cyberpunk, in mind, I have deliberately chosen texts which are not 'straightforward' first-wave cyberpunk narratives. While both have relationships with the original cyberpunks, these are complicated either by a feminist perspective (Dorsey) or a generational distance (Stephenson). Can Dorsey and Stephenson avoid these traps outlined by Traber and Schilt, and release the 'resistance' to gender norms in their texts? In the following sections, I consider *what* the texts are resisting, *how* this is done and if it can be considered successful.

2. Snow Crash

In Stephenson's novel, *Snow Crash,* he depicts the ultimate dystopian future society, a mindless America in which everything has become the property of a company, where there are no laws and the Mafia is a recognised business. Hiro Protagonist, one of the two main protagonists in *Snow Crash,* is announced to the reader through his business card which dubs him 'Last of the freelance hackers. Greatest sword fighter in the world.'[14] Hiro's 'cool' cyberpunk persona is undercut, however, by his mundane job delivering pizza. Stephenson heightens the incongruity between Hiro's two identities by juxtaposing a hyped rhetorical style with the ordinariness of Hiro's job. The book opens with a description of Hiro on a night at work, during which he is referred to as 'The Deliverator'. This description lasts several pages. However, it is only on the third page that the reader actually discovers that the job is pizza delivery. The two pages prior to that are

hyperbolic descriptions of his car, uniform and gun, as the opening sentences demonstrate: '(t)he Deliverator belongs to an elite order, a hallowed subcategory. He's got esprit up to here.'[15] Deliberately playing with recognisable styles from action and adventure narratives, Stephenson undermines the trappings of cyberpunk machismo in just a few lines.

The other central character in *Snow Crash* is a teenage girl called Y. T. She lives with her mother but leads a 'double life' as a skateboard courier, pausing at her local McDonalds on the way home to change her courier uniform for a skirt and blouse with a 'delicate floral print.'[16] Independent and strong-willed, she rarely goes online, and does not carry a weapon. Through their affiliations to the hackers and the skateboarders, Hiro and Y. T. are portrayed as existing more comfortably outside 'accepted' society, and this is reflected in their dress and slang. The lifestyle choices of Y. T. and Hiro deliberately contrast with the mindless, corporate suburban future America that Stephenson portrays.

However, we need to ask - following Traber - whether this contrast actually reinforces boundaries, and, if so, what other 'regulatory fictions' remain in place in Stephenson's novel? Larry McCaffery's introduction to the cyberpunk anthology, *Storming the Reality Studio,* provides a helpful starting point for investigating this. In the following extract, he describes the image projected by the early cyberpunk authors:

> Decked out in mirrorshades and leather jackets, the cyberpunks projected an image of confrontational 'reality hacker' artists who were armed, dangerous, and jacked into (but not under the thumb of) the Now and the New.[17]

Although not directly identified as male in the quotation above, the cyberpunk is implicitly gendered through references to typically male figures such as the biker, the hacker and the criminal. Broader cultural associations between aggression and masculinity also contribute to this not-so-subtle gendering of the (cyber)punk.

In *Snow Crash,* this connection is played out in various ways. Hiro's highly developed technical skills as hacker and developer - and his role in the narrative as detective and decoder of the plot - seem to associate him with mental abilities. Any mentions of his body are connected primarily with fighting or driving, and whilst Stephenson clearly shows himself capable of parodying dominant discourses in these descriptions (as demonstrated in the extract about 'the Deliverator'), his treatment is not consistently self-aware when doing so. For example, in the stages leading up to the final sequence Hiro buys a motorbike, and when seated on the bike in his new motorcycling clothes he is described as looking like 'one bad motherfucker.'[18] With no

apparent irony and in just a few lines, Stephenson thus returns Hiro to the mould of earlier cyberpunks.

Like many female figures in cyberpunk, Y.T. is positioned as independent and strong-willed. However, she suffers from the same lack of attention to her mental abilities and absence of online persona as earlier female figures in this genre. Y. T.'s body is usually mentioned in relation to her skateboarding outfits, or her sexual encounters with her courier boyfriend and the assassin, Raven. In the passages with Raven she is portrayed as being physically and sexually powerless. Stephenson's reliance on stock scenarios such as Y. T.'s admiration of Hiro, her lack of weapons, and the references to her physicality and sexuality results in a disappointingly stereotyped portrayal. Thus while Stephenson's novel initially appears to be a self-aware updating of the cyberpunk genre seen in his adaptation of the rhetorical style of earlier texts and his positioning of Hiro and Y. T. as distanced from mainstream/corporate culture, his gendering of the characters falls back on stock positions more in keeping with texts such as Gibson's.

3. '(Learning About) Machine Sex'

The integration of punk ethics into a technological or futuristic framework often results in criticism of corporate concerns becoming a fundamental part of the cyberpunk ethos. This anti-establishment spirit is very much in keeping with both the tone and the concerns of cyberpunk fiction, as can be seen in Dorsey's short story, '(Learning About) Machine Sex'. The response of the main protagonist, Angel, to the buy-out of the small, start-up, company for which she works is perhaps typical of cyberpunk positioning:

> 'Had a big day,' he said.
> 'Yeah?'
> 'Big deal went through.'
> 'Yeah?'
> 'Yeah, I sold the company.'
> 'You what?' Reflexively moving herself so that none of her body touched his.
> 'Northern. I put it to Bronfmann. Megabucks.'
> 'Are you joking?' but she saw he was not. 'You didn't, I didn't…Northern's *our* company.'[19]

Angel's instinctive response here reflects the punk mistrust of authority and the hacker commitment to free access to software. Angel is identified from early in the story as being resistant to societal norms, as demonstrated by both her appearance and her ability to succeed in the male-dominated hacker world: 'they say a hacker's burned out before he's twenty-one. Note the

pronoun: he. Not many young women in that heady realm of the chip.'[20] The cynicism and self-awareness of the narrator's voice, combined with Angel's attitude marks this text as being as much 'punk' as it is 'cyberpunk'. Angel is fiercely resistant to corporatisation of her creative programming work. Her attitude disrupts the male-dominated corporate world and simultaneously returns the technology to the hands of the individual.[21] Angel engages in behaviours which she recognises as being outside the norm, and which are only tolerated by her employer because of her talent with computers.

Angel's chosen aesthetic ('sweaty-smelling, disheveled, anorectic-looking waif'[22]) disrupts the image of the desirable techno-body seen in earlier cyberpunk, while her choice of 'uniform' again marks her distance from the corporate world and her membership of alternative culture. Thus, Dorsey positions Angel as closer to 'punk' than 'cyberpunk' in her bodily aesthetics. Dorsey's treatment of Angel aptly captures the ambiguity of the position of women cyberpunks - Angel is intelligent, talented and resistant to absorption into the corporate sphere. However, whilst a strong, independent character, she is riven by betrayals and marked by her chosen forms of escape into prostitution and drugs. Dorsey is equally ambivalent about 'sexy' technologies, simultaneously drawing Angel herself as a kind of machine, and associating meaningless, 'programmable' sex with male desire.

'(Learning About) Machine Sex' thus resists the normative gender representations seen in this subgenre by using self-aware commentary on, or parody of, the stereotypes associated with cyberpunk. In Angel, Dorsey has created a character who marks a distinct aesthetic departure from the glossy female figures of earlier cyberpunk, and who, in her attitude to machines, relishes the intellectual challenge whilst avoiding blissful disembodiment. Dorsey's resistance to these stock figures and themes of cyberpunk, however, goes beyond her portrayal of Angel. Her prose style is sparse and notable for its avoidance of technophilic rhetoric, while the mocking tone of the narrator's voice undermines the euphoric rhetoric of early cyberpunk, playing with the accepted tropes.

Dorsey's style has important implications for the gendering of cyberpunk by parodying the 'sexy' technologies of novels such as *Neuromancer,* and particularly their techno-sexualisation of the female body. Dorsey thus turns the genre conventions back on themselves to resist gender stereotypes, drawing on typical modes of punk resistance to help her achieve this. Her use of multiple discourses and a circular narrative breaks with linear, chronological, storytelling and prevents emergence of a single, stable, reading of the text. This disruptive style 'hooks' the reader and, for me at least, led to constant rereading as I tried and failed to decipher the text. If cyberpunk positioned itself as the Other to corporate America, then Dorsey seems to resist acquiescence to either corporate norms or the superficial otherness of cyberpunk.

4. Conclusion

This genre's moniker aptly reflects its interest in technology and also the anti-establishment attitudes of its characters and themes. 'Punk' can be seen here as a kind of short-hand for all that is alternative or disruptive. However, as Traber highlights in the article I discussed earlier, this positioning of punk as a somehow more 'genuine' lifestyle assumes an Other: '(p)unks unconsciously reinforce the dominant culture rather than escape it because their turn to the sub-urban reaffirms the negative stereotypes used in the center to define this space and its population.'[23] I would suggest that similar limitations can also apply in cyberpunk. The potential for resistance suggested by Stephenson's representation of big business and adaptation of existing genre conventions, for example, is limited by the often stereotypical gender representations. Punk thus functions as a glossy surface which obscures the ongoing reproduction of oppositions and hierarchies.

If searching for challenging figures or figurations, however, Dorsey's short story might be a more successful example of resistance. Dorsey's protagonist, Angel, is not offered as role model, rather her own existence, replete with dissonances and tensions, poses questions to the reader about how and where to situate themselves, how to read the text, and what to conclude. In terms of resistance, this is a new kind of punk. 'Punk' here is not only in the choice of words, or the actions and dress of the protagonists, it can also consist on another level again where the author deliberately baits the reader, refusing any easy answer. Dorsey exploits the sexualised rhetoric of technology often seen in early cyberpunk, resulting in an ironic, open-ended narrative that challenges both gender and genre norms.

Notes

[1] D J Haraway, 'A Cyborg Manifesto: Science, Technology, and Socialist-Feminism in the Late Twentieth Century', in *Simians, Cyborgs, and Women: The Reinvention of Nature,* Free Association Books, London, 1991, p. 178.

[2] For example, S R Delany, *The Jewel-Hinged Jaw: Notes on the Language of Science Fiction,* Dragon Press, New York, 1977.

[3] W Wahl, 'Bodies and Technologies: *Dora, Neuromancer,* and Strategies of Resistance'. *Postmodern Culture,* vol. 3, issue 2, January 1993, viewed on 28 April 2008, Link:
<http://muse.uq.edu.au/journals/postmodern_culture/v003/3.2wahl.html>

[4] J Deery, 'The Biopolitics of Cyberspace: Piercy Hacks Gibson', in *Future Females, The New Generation: New Voices and Velocities in Feminist Science Fiction Criticism,* M. S. Barr (ed), Rowman & Littlefield, Lanham, Boulder, New York and Oxford, 2000, p. 91.

[5] N Stephenson, *Snow Crash*, Bantam Dell, New York, 1993.

[6] In a collection of Dorsey's short stories titled *Machine Sex and Other Stories,* The Women's Press, London, 1990, pp. 76-97.
[7] My use of scare quotes here is a reference to how the parent genre of punk questioned social norms and aspirations by 'celebrating ugliness in contrast to beauty, depression instead of joy, the sordid over the morally approved', from D S Traber, 'L. A.'s 'White Minority': Punk and the Contradictions of Self-Marginalization'. *Cultural Critique,* vol. 48, Spring 2001, p. 34.
[8] For example, the Wikipedia outline of punk ideology reads: 'Common punk ethics include a radical rejection of conformity, the DIY (Do It Yourself) ethic, direct action for political change, and not selling out to mainstream interests for personal gain.' Viewed 24 August 2006, Link: <http://en.wikipedia.org/w/index.php?title=Punk_subculture&printable=yes >. All of these ethics could easily apply to feminism, as the 2006 CFP for the 'D.I.Y. for Girls conference' posted by the National Women's Studies Association demonstrates.
[9] Traber, pp. 30-64.
[10] ibid, p. 33.
[11] ibid, p. 32.
[12] K Schilt, ''A little too ironic': The Appropriation and Packaging of Riot Grrrl Politics by Mainstream Female Musicians', *Popular Music and Society,* vol. 26, issue 1, 2003, p.6.
[13] ibid, p.14.
[14] Stephenson, p. 17.
[15] ibid, p .1.
[16] ibid, p. 101.
[17] L McCaffery, 'Introduction: The Desert of the Real', in *Storming the Reality Studio: A Casebook of Cyberpunk and Postmodern Fiction,* L. McCaffery (ed), Duke University Press, Durham and London, 1991, p. 13.
[18] Stephenson, p. 271.
[19] Dorsey, p. 84.
[20] ibid, p. 79.
[21] See Jenny Wolmark on disruptive figures, in 'Staying with the Body: Narratives of the Posthuman in Contemporary Science Fiction' in *Edging into the Future: Science Fiction and Contemporary Cultural Transformation,* Veronica Hollinger and Joan Gordon (eds), University of Pennsylvania Press, Philadelphia, 2002, p. 79.
[22] Dorsey, p. 81.
[23] Traber, p. 31.

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Wolmark, J., 'Staying with the Body: Narratives of the Posthuman in Contemporary Science Fiction'. In *Edging into the Future: Science Fiction and Contemporary Cultural Transformation,* V. Hollinger and J. Gordon (eds), University of Pennsylvania Press, Philadelphia, 2002, pp. 75-89.

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Cyber-Shamanism as a Theory of Simulacra in *Ygdrasil,* a Novel by Jorge Baradit

Juan Ignacio Munoz

Abstract
In this paper I study the representation of virtuality and trauma in *Ygdrasil* (2005), a novel by Chilean author Jorge Baradit. I consider virtuality to consist of a series of contemporary representations of computer science innovations. Virtuality further entails a cultural code of mediation (simulacra) and a particular conception of space (virtual space). I examine the different types of virtuality that contribute to the formulation of a Chilean Cyberpunk. Through the analysis of *Ygdrasil*, I determine which elements are best adapted to the novel and the Latin American cultural context.

Key Words: Cyberpunk Literature, Virtuality, Latin America Culture.

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1. Introduction

As pointed out in the edition of *Science Fiction Studies* dedicated to Latin American science fiction, Jorge Baradit's *Ygdrasil* (2005) has made its mark on Chilean science fiction.[1] *Ygdrasil* completes the Chilean Cyperpunk project, which can be said to have begun with the novel by Diego Muñoz Valenzuela, *Flores para un cyborg* (1997) ['Flowers for a Cyborg'], and the novella by Darío Oses, *El Virus Baco* (2002) [The Bacchus Virus]. Muñoz Valenzuela approaches a cyberpunk sensibility through a combination of detective and science fictions. In his novel, a political exile brought it to Chile an android to commit a series of crimes against the former members of the dictatorship who, despite the fact that a new democratic government has been instated, still hold political and economic power. The novella by Darío Oses, *El Virus Baco* presents a Chilean city preparing itself for an international computer technology show. However, the city descends into total chaos, due to bad weather, an illness among the staff, and a computer virus that takes on apocalyptic dimensions when it begins to change the laws of the physical world. The protagonist, a somewhat lazy young man, leaves to search out his older brother, whom he suspects is the person responsible, not only for the virus, but for its propagation. When the virus begins to attack financial institutions and redistribute the money amongst the poor, the

novella undertakes the task of describing the consequences that arise from idealism and when reality yields to utopian impulses.

While the Bacchus virus succeeds in momentarily reversing the world's social order, the android in *Flores para un Cybrog* becomes an ethical model in the eyes of his creator, who is sceptical of political tendencies. Despite this, the creator dichotomises society between those who uphold the law and lawbreakers, in the context of the post-dictatorship and of the politics of reconciliation.[2] The dichotomies presented in *Flores para un Cyborg* and *El Virus Baco* reflect the problems facing Chilean society in the 1990s. After the return of democracy in 1990, a coalition of parties upholding different political tendencies has had to share power and manage the blow sustained by the 1993 Retting Report. The report publicises the crimes and violations against human rights incurred during the dictatorship of Augusto Pinochet[3], who, until his 1998 London arrest, enjoyed political amnesty and retained his positions as both commander in chief of the armed forces and lifetime senator (*senador vitalicio*).

Ygdrasil first appears during the final years of Pinochet's life, a period of Chilean history still marked by scandals and legal battles in an attempt to bring him to trial, and one that would witness the succession of two socialist governments (Ricardo Lagos 2000-2006 and Michelle Bachelet 2006-present). As such, the novel surpasses the political dichotomization and utopian reversal presented in Muñoz Valenzuela's and Oses's works. The main character, Mariana, a 36 year old Chilean and drug addicted hit-woman, is abducted from the slums of Puebla, Mexico, by that country's government to investigate a strange technology that was illegally used on its national soil. This technology is responsible for the discovery, in the Sonora desert, of a man whose soul has been disassociated and fragmented. The discovery takes place on the same day that the Bank of Mexico registers unusual monetary transfers. With an implant in her brain, by which she receives orders and accesses the information network, Mariana breaks into the sewers of the Bank's 'live' building. At this point, however, the situation takes on a dramatic twist: Mariana is betrayed by the Mexican military and handed over to a fraternity that tortures her and makes her body disappear. She is saved and rebuilt by a '*Selknam*,' an extra-dimensional shaman who needs her help in order to solve the mystery of the souls who have been detoured from a circuit that is vital to God. Mariana returns to the Mexican military. She is sent on a mission to Cuba and then to the Chrysler nation-state, where she is kidnapped by the leader of a rebellious religious sect. This chain of events continues until the story's end, when she is sacrificed in order to carry out Chrysler's plan to incarnate human souls in war machines and prepare them for a rebellion against a dying God.

2. Simulacra and Theatrics of Cyber-Shamanism

Virtuality is at the heart of a distinction between certain decisive concepts related to an ontological understanding of reality. This can be traced back to the distinction made between 'modalities of possibility, contingency and necessity,' in Aristotle's philosophy, or to Leibniz's theory of possible worlds.[4] It was not until the twentieth century, however, that a number of discourses surfaced. On the one hand, Holz presents Stanislaw Lem's philosophical essay, *Summa Technologiae* (1964), which anticipates the ethical issues surrounding virtual reality. Lem establishes a classic opposition and hierarchy between reality and virtuality through a series of techniques he calls 'phantomatics.' On the other hand, Holz contrast's Lem's work with the work of Jean Baudrillard, who reflects on virtuality's distinction from the actual, that is, 'the empirical given *hic et nunc* designated by the traditional concept of reality'.[5] Baudrillard develops the concepts of 'simulacra' and 'simulation' to account for the process that takes place amid mutations in 'the law of value,' in other words, the principles that regulate both the substitution of an object and the system of signs normally responsible for representing said object. Accordingly, Baudrillard locates the first two orders of simulacra where the referent and the object maintain a transparent relationship. From the 'counterfeit' automaton, which simulated the natural law of value, during the Renaissance, to the 'production' robot, which established a hegemony of 'dead labour over living labour,'[6] during the industrial revolution. Subsequent to the first two orders of simulacra, Western societies attain an order of simulation and hyperrealism in which virtuality flourishes, through the expansion of media power, the creation of the internet and virtual reality, and an economy increasingly based on speculation. A product of the changes introduced by cybernetics, simulation is itself considered a structural law of value that anticipates and orders the 'real' in all areas of culture. Simulation replaces the real by its own excess, 'the hyperreal,' pure simulacra.

From the beginning of his career, Baudrillard has redirected Marxism's interest in the modes of production toward an analysis of the modes of consumption in societies that have reached a state of pure simulation and simulacra. These societies experience a shift, from a symbolic regime to a semiotic regime[7], and thus an exit from history. Baudrillard attempts to remove all the complexity of historical experience from conflicts and observations. The theoretical construction of simulation and simulacra, however, is based more on tangible ideological differences than on a regime of empty signs. Furthermore, it is delimited to binary geopolitical space. Baudrillard's work is filled with examples that illustrate his mind's Eurocentric inner-workings. His thinking tirelessly constructs an Other, either as the antimony of the West[8], or as death, representing the West's symbolic spectre. At some point, the faults and/or limitations of this kind of thinking

must be recognized, as occurred during an interview that Nelly Richard gave to Baudrillard, during a visit of his to Chile:

> Nelly Richard: You elaborated a 'theory-fiction' of a mass-mediated country which was entirely levelled and flattened by the homogenising effect of a transparent code. That theory-fiction does not in any way fit the historic and social formations of Latin America, marked as they are by a multicultural heterogeneity of disparate references which cross and mix with one another, and of signs which contain different memories and traditions, because of the complicated process of syncretism, mestizaje, hybridization, etc. [...] Do you think that those intersections of discordant cultural horizons contained in the interior of the sign on which they turn, in Latin America, are incompatible with your illusion of a transparent homogeneous code?
>
> Jean Baudrillard: It's difficult for me to respond to that because I find it hard to place myself in a unique case of complex memories of the sign, as it is produced in a particular culture like Latin America.[9]

Simulacra and virtuality, as both artistic and 'imaginary' strategies, are not Western prerogatives. Neither is science fiction, which Baudrillard views as an example of the first three orders of simulacra.[10] A society located outside the economy responsible for the cultural production of pure simulacra, must nonetheless face the same consequences as a consumer of second order simulation, even while continuing to be a producer of the first three orders of simulacra. The challenge for such a society, therefore, is to represent what Richard refers to as the 'complexity of the memories of signs.' In this sense, the Chilean cyberpunk project would specifically produce, on an artistic level, some of virtuality's mechanisms as well as its historical phases. As we have seen, the android in *Flores para un cyborg* would correspond with the first two orders of simulacra. The android is a replica of the social universe on account of its synthetic skin (representing its symbolic desire to have a penis and become a common man) as well as the location of its construction, an American university (symbolising the technological and economic gap between the United States and Chile). With *El Virus Baco*, Chilean cyberpunk achieves certain mastery of third order simulacra, and not simply as a result of 'reality games' crafted within a tradition of metafiction or literary simulations, but owing to the impact that the rise and proliferation of

computer networks and equipment can have on Latin American literature and culture.

In contrast, in *Ygdrasil*, it is not a question of automatons or robots. As for the computers, they are not simply installed in physical space, nor are they inorganic peripheral accessories, as Mariana's implants might suggest. Rather, the computers have incorporated an organic substance into their structure and provide access to an interface of cyber and psychic space through Ouija-keyboards. In this case, the representation of simulacra performs the function of absorbing the organic real through a paradoxically organic deglutition, ultimately swallowing up a spiritual principle, that is, the souls of the men who were supposed to revive God. It is in terms of this spiritual or magical principal that the novel performs, in its own way, the concept of hyperreality. During her recovery, Mariana finds herself in a cave, face to face with three shamanic entities: Reche, the Selknam who saved her; Pedro the Hermit, an agent from the Mexican government who has to capture Mariana; and the projection of Tangata Manu, a superior being who 'orbits the Earth at an altitude of three hundred kilometres'.[11] Due to an 'enchantment' from the Selknam, Mariana meets Tangata Manu outside the cave. Later, she asks if what she saw and heard was 'real' and 'true.' The Selknam answers, 'more real than what's happening here right now'.[12] At this juncture, Baradit uses the allegory of the platonic cave, which has become a topic in cyberpunk films, such as *The Matrix*, to illustrate the effect of simulacra on culture (Partridge, Bénatouil, etc.).

A parallel can be drawn between the shamanic figures in *Ygdrasil* and Plato's and Baudrillard's doctrines on simulacra. It is not a coincidence that Baradit, and others, assign *Ygdrasil* to a genre they call 'cyber-shamanism'. The shamanic figures are intermediaries between Mariana and virtuality. Their reach extends throughout the cosmic and cybernetic landscape. The physical description of these shamans elicits something visually indistinguishable. The Selknam appears to Mariana as 'a flat, poor definition video image, on pause,' who can play with time and space.[13] Mariana could walk circles around the Selknam and would never find his face[14]; or, she could stare at him forever and always have the impression of seeing him for the first time.[15] Pedro the Hermit has a deformed body which 'is not completely in space: he moves and vibrates like a deteriorated video image'[16]. Likewise, Tangata Manu is an astral projection that contemplates, from outer space, his reflection in a huge rune located in the south of Chile. In the *Sophist*, Plato gives the example of an enormous statue of a man who does not respect human anatomic proportions, even though it would appear real to a distant spectator[17]. For Plato the logic of simulacra is, in this example, anamorphic. It assumes that the job of the philosopher is to reveal the observer's position and the illusion in order that 'the irreducible difference of the intelligible' might prevail.[18]

On the one hand, the cyber-shamanism in *Ygdrasil* closely follows the logic or process of pure simulacra and simulation. It disembodies the shaman as a historic figure and creates an indistinct representation. It is not, therefore, a question of 'Indigenism' or of the idealisation of these shamans, even if Mariana, whilst contemplating a Mexican sunrise, says to the Selknam:

> Here they used to say that gold was the sun's tears. When the Europeans arrived, the Indians understood why the sun cried. - Mariana sighed - In my country there was no gold, but there were Mapuche. I hope I have some of their blood in my veins. If so, I have nothing to fear.[19]

The shamans are mere agents who carry out a mission and obey an 'aesthetic moral'[20], as the Selknam tells Günther, a ghost that travels inside Mariana during her mission to Cuba and Chrysler. The aesthetic moral is precisely this amoral logic of simulacra which gives specificity to cyber-shamanism. Aside from the names of Amerindian origin - 'Selknam' (an ethnic group from the Patagonia), Tangata Manu (a titled granted to the winner of a competition held by the Rapa Nui from Easter Island), Lautaro, etc. -, the shamans could be replaced by other imaginary creatures, such as elves, pans or aliens.

On the other hand, cyber-shamanism distances itself from Baudrillardian simulation and approaches virtuality more than Stanlislaw Lem's phantomatics. The Polish writer distinguishes between a central and a peripheral use of phantomatics. In the former, toxic stimulation, electric implants and nanotechnology are supposed to grant access to virtual worlds. However, this access is not recommended, the risk of confusing realities being imminent. Consequently, Lem recommends a peripheral phantomatics that attempts to develop the sensory apparatus of human being through other practices. Accordingly, Holz gives an example of 'rituals that involve dancing and music, where the rhythm translated into motor activity, which in turn affects the emotional states, is exploited as a means of transcending the here and now'.[21] The Selknam's 'aesthetic moral' is the result of a dance he must do in sync with certain cosmic events. This dance, which does not succumb to 'the commands of a magician,' can also be found in 'Japanese gardens'[22] This 'shaman's' dance is carried out in a virtual space that predetermines all other space in which the rest of the characters evolve. It is also essential to central phantomatics. For example, the corn based drug that Mariana is addicted to in the beginning of the novel is 'cut' by the Mexican government; the Selknam's vision does not involve any intermediary technology or hallucinogenic drug; and, Mariana's implants only serve as a form of communication between her, the military and Günther, the ghost.

The peripheral phantomatics found in the shaman's dance are also virtual devices that literary and cinematographic cyberpunk have known how to exploit through Orientalism, as an aesthetic practice, demonstrated by Hideo's ninja 'dance,' in *Neuromancer*[23], or through a fascination for martial arts' choreography and the 'Bullet-Time' technique (akin to Aikido philosophy and to the Bergsonian duration), in *The Matrix*.[24] But the virtuality of phantomatics, in a novel like *Ygdrasil*, must transcend these decorative and Orientalist practices if it is to escape the closed logic of pure simulacra and simulation. Shamanism might seem just as exotic as the 'Japanese gardens' to a Chilean or Latin-American subjectivity, which constructs itself in its own way in cyberpunk. However, it serves the important function of allocating a 'memory' to the sign.

Notes

[1] Y Molina-Gavilán, et al, 'A Chronology of Latin-American Science Fiction, 1775-2005', in *Science Fiction Studies*, vol. 34, 2007, p. 387.
[2] In Flores para un cyborg, one can se the dilemma of forgetfulness and vengeance which Brett Levinson describes as: 'one of the commonplaces of postdictatorship cultural production and political controversies', B Levinson, 'Obstinate Forgetting in Chile: Radical Injustice and the Possibility of Community', in *Topologies of Trauma: Essays on the Limit of Knowledge and Memory*, L Belau and P Ramadanovic (eds), Other, New York, 2002, p. 212.
[3] For an English translation of this report, see: <http://www.usip.org/library/tc/doc/reports/chile/chile_1993_toc.html>.
[4] M Holz, Traversing Virtual Spaces. Body, Memory and Trauma in Cyberpunk, Universitätsverlag Winter, Heidelberg, 2006, p. 12.
[5] Ibid. p. 10.
[6] J Baudrillard, *Symbolic Exchange and Death,* Sage Publications, London, 1993, p. 54.
[7] R J Lane, *Jean Baudrillard,* Routledge, London, 2000, p. 58.
[8] For instance, one finds the following comment in Symbolic Exchange and Death: 'Thus the people of the Third World (Arabs, Blacks or Indians) act as Western culture's imaginary (as much an object or support of racism as the support of revolutionary aspirations). On the other hand, we, the technological and industrial West, are their imaginary, what they dream of in their dream of separation' (Baudrillard, p. 188).
[9] M Sánchez Prieto, 'Eurocentrism and Critical Latin American Thought. Notes on the Theme of Evaluation' in *Third Text* 41, Winter 1997-98, p. 11.
[10] J Baudrillard, *Simulacra and Simulations*, University of Michigan Press, Ann Arbor, 1981.

[11] J Baradit, *Ygdrasil,* Ediciones B Chile, Santiago, 2005, p. 64. (Author's translation).
[12] Ibid., p. 58.
[13] Ibid., p. 36.
[14] Ibid., p. 84.
[15] Ibid., p. 48.
[16] Ibid., pp. 51-52.
[17] Platon, *The Sophist,* Arc Manor, Rockville, 2008, p. 33, (235e).
[18] L Lavaud, *L'image,* GF Flammarion, Paris, 1999, p. 234 (Author's translation).
[19] J Baradit, op. cit, p. 63.
[20] Ibid., p. 111.
[21] M Holz, op. cit, p. 62.
[22] J Baradit, op. cit, p. 62.
[23] W Gibson, *Neuromancer,* Ace books, New York, 1984, p. 262.
[24] E During, 'Trois figures de la simulation ', in *Matrix machine philosophique,* A Badiou et al, Ellipses, 2003, p. 144.

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When Differences become Unimportant: *Casshern* and the True Social of Cyberpunk

Maria Poulaki

Abstract
Through a combination of actor-network theory's anti-essentialism and Badiou's ethics, this article seeks to explore what cyberpunk can mean today, using the film *Casshern* as a case study. For Latour, the path to the social as an *event*, opens only when no pre-given abstract categories as 'nature' and 'society' enclave human action. Technological and biological, human and nonhuman actors or *actants*, both can co-exist and co-work to make the social, as the difference between the natural and the technological is rendered unimportant. Badiou's universal ethics also begin when differences between self and other become unimportant. In this sense, cuberpunk, rendering the human-nonhuman difference unimportant, can be a truly universal genre, indicating that human identity is still a goal to be reached; and this goal does not recognize the 'human' as a solid category.

Key Words: Human, Actor-Network Theory, Universalism, Cyberpunk, Identity, Event, Social.

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1. Introduction to What is (not) Typical about *Casshern*

Despite the contradictory critiques[1], what is unique about *Casshern*, the Japanese film by Kazuaki Kiriya, (2004), is that, in its borrowing from many different genres and science fictional traditions (anime, action movies, or classic Frankensteinian sci-fi stories), it retains an original and in the same time subversive cyberpunk character. However, I prefer to call this film 'meta-cyberpunk' in the sense that, beyond any genre classifications, it offers us the chance to think about cyberpunk, and the peculiar relationship between human and nonhumans that cyberpunk as a genre introduced but not fully realized; a relationship different from the traditional dichotomies of science-fiction, and very close to the theory about the 'nonhumans' of Bruno Latour. Casshern expresses a potential for science fiction to be truly universal and for cyberpunk to be truly social. This potential will be explored here using the ethics of Alain Badiou.

Although the film draws from many different genres, it has mostly been labeled as cyberpunk[2]. In many respects, we are indeed placed in a

cyberpunk-like setting: dystopian and polluted city, but also country-landscape, an authoritarian regime trying to eliminate resistance, a mysterious corporation that serves the army's interests and wants to control the biotechnological research and, later on, a war from the part of genetically engineered nonhumans, the products of this research, claiming their rights from the 'real' humans.

The place of the nonhumans in Casshern is occupied by the *neo-sapiens*, artificially engineered humans created by mistake in a lab where professor Azuma conducts his experiments to regenerate human tissue. His experiments are of vital importance, as his country, called the 'Eastern Federation', suffers from heavy environmental pollution and incurable diseases. The *neo-sapiens* not only look, but also act just like humans. But when the 'real' humans deny them their 'equal right to life', they decide to fight them back and take revenge for their pogrom. And they do so behaving exactly like humans -imitating them in their cruelty, which seems to be the basic characteristic that the film ascribes to humans. Interestingly, only the residents of Eastern Federation are called 'humans' in the film. They are the 'winners' of a long-term war between Asia and Europe and conquerors of the Eurasian continent, an ancient, not civilized region situated between the two competitors. The *neo-sapiens* and the residents of Eurasia, who are the 'losers' of the war and now fight against the oppressive regime of Eastern Federation, are in a way connected from the start, as non-humans and sub-humans respectively. In the end actually they prove to be the same: it is revealed that the neo-sapiens are real humans, inhabitants of Eurasia who were abducted during the war to offer their rare neo-*cells* for the human regeneration experiments, but when the experiments failed, were 'carved up' to provide with their organs and body parts the greedy humans of Eastern Federation. The humans needed those cells because, as it is revealed, the Eurasians are genetical ancestors of the population of Eastern Federation. Therefore, the artificial humans prove to be the 'original humans' and the causal chain of ancestors and descendants, creators and creations, are reversed.

Leaving aside its historical and political allegories, *Casshern* could be interpreted as a story of an empire with mostly masculine warriors and super-heroes, who seek to protect it from the non-human, 'foreign' other. Throughout the whole film this 'other' (the *neo-sapiens*) mirrors the human self, acting just like its double, even imitating him in his atrocities[3], while in the end the mirror is smashed and otherness is expelled, as both rivals, naturally human and 'artificially' human, are proved to be natural human in origin. Therefore, we could 'read' the story as an object-subject dichotomy that ends up in the peace of co-existence (and the corresponding 'assimilation of alterity'), through the abolishment of difference, which would render *Casshern* into a totalitarian epic[4].

However, does *Casshern* really eliminate the difference? Or does it function corrosively to the very ground of the sameness? This paper chooses the second, least beaten track. In this view, *Casshern* will be discussed as a very peculiar humanist film, in its explicit anti-humanism, which puts into question the foundations of human nature as it has developed from Enlightenment until now.

2. From Actor-Network Theory to Science Fiction: The Adventures of Human Identity in Modernity

If we accept Bruno Latour's claim in his book *We have never been modern*, that Modernity's central characteristic is the exclusion, or better purification, of hybridity[5], we could say that science fiction is a cultural genre placed right at the heart of the discourse of Modernity, negotiating -and sometimes even disrupting- the space between human subjects and hybrid objects - aliens, machines, robots, monsters, humanoids etc.

As we saw *Casshern* mixes humans with Modernity's hybrids or Latour's 'nonhumans', just like the biotechnological reality of our times does. The question is whether 'nature' as such, or 'human' as such, have ever existed, and if the certainty over 'human nature' was recently lost, with the advent of new technologies, like bio-engineering or cloning, or if the scientific advances of our times just point at what was missing from the start. And if 'Man' as a solid category is himself a product of modernity, a fake entity placed at the origin of all natural and technical world, silencing its voice.[6]

Another 'pioneer' of actor-network theory besides Latour, John Law, speaks for a double 'dissolution of humanism', coming on the one hand from the extension of our scope beyond humans, therefore the abandonment of a *speciecist* position and the opening to other voices, like those of natural, technical, monstrous, even spiritual entities, and on the other hand, from the abandonment of the very idea of entities as such, as all entities, including the human, 'are effects or products'; 'Neither are given in the order of things'.[7]

The division between humans as subjects and things as objects is rendered obsolete when humans and things are considered as equivalent actors. Indeed for Latour there is no subject nor object, only equal human and nonhuman agents[8]. In this realm where the subjective world of humans and the objective world of things, cease to be strictly separate, the door is left open for the hybrids to acquire the ontological status that Modernity denied them, just like the humans of the film denied the neo-sapiens their 'right to life'. This 'invasion' not only frees nonhumans from the silence where they have been condemned in Modernity, but also humans from the necessity to be constantly and reflexively defending their 'human essence' against objectification. In my view the same move can also set science fiction free,

the genre that has also been 'constantly and reflexively' defending 'humanity' against its Other.

The nonhumans in *Casshern* are not condemned to silence, on the contrary they are fighting for a place into the human realm, for an identity of their own and rights of their own: they do have politics, but, as soon as they imitate human cruelty and try to eliminate humans, they are not really fighting for humanity but for its power. Their politics end up inscribed in the same net of power that encloses the human world. But actor-network theory has been criticized for having the same result: in its (successful) attempt to include in the network of the social all natural and technological objects, it exerts a form of sociological colonization of the non-social and nonhuman, incorporating the Other into the same and expanding the range of disciplinary power. Moreover, considering power as the reality principle and also inscribing the nonhumans as 'monadic wills to power', actor-network theory is said to trap everything into a dominance-resistance bipolar, where resistance cannot be other than what Baudrillard saw as a redistribution of dominance.[9]

The only way to avoid this trap that *Casshern's* rivals have also fallen into, and leads to endless violence, is to exit the identitarian logic, to leave back everything that we are defending as individuals, and first of all our human identity itself -at least as it has been shaped in Modernity. The *neo-sapiens* creation soon becomes the mirror of its creator. What we should be afraid of, the film suggests, is not the artificial humans, because there is no originality in humanity; what we should be afraid of is the reproduction of humanity as it has developed until now in its phantasy of originality -a 'humanity' which the artificial humans in the film have no choice but to imitate.

Actor-network theory has also been struggling to resist the above criticism, sticking to its initial character as 'one of the many anti-essentialist movements of the end of the [20th] century', according to Latour[10], and to its rejection of identities and fixed points. Even more precisely, it insists in its materialistic sociology that treats 'different materials - people, machines, 'ideas' and all the rest - as interactional effects rather than primitive causes'.[11] Latour insists that all 'a priori definitions of [the actors'] world-building capacities'[12], should be left aside, and all modernist contradictions should be ignored:

> Contradictions, most of the time and especially when they are related to the modernist predicament, should not be overcome, but simply ignored or bypassed.[13]

And Law continues:

> To say that there is no fundamental difference between people and objects is an analytical stance, not an ethical position. [However,] we might use it to sharpen ethical questions about the special character of the human effect […].[14]

However, as I will argue, the ethical questioning comes here to the fore not only as a distraction -as Law sees it- but as a necessary supplement to the ontological questioning of the human. The mere visibility of the nonhumans and even their participation in the play of power does not really displace the pre-fixed human identity from its powerful position- to the contrary, it reinforces this position in a reflexive manner, as humans fight to defend or win back their lost or threatened power. But how is it possible to really sharpen the criticism on what the human means today, without an ethics that would be indifferent to all the differences that determine the boundaries of human identity?

Casshern gives an answer: it does not stop in the reflexive realization of a common origin of the humans and nonhumans; in the end both rivals -the human protagonist Tetsuya and the king of the neo-sapiens Burai- *reject* the very essence of the 'human' identity that they prove to be sharing. To paraphrase Latour, they have never been human.

Casshern's narration comes to a point that the human segregation from the nonhuman generates and in the same time serves as an excuse for political and nationalistic conflicts, while in essence is *unimportant*. There is some universality in *Casshern* which places humans and nonhumans in the same level and calls for reconsidering of all natural categories. But this universality is different from the classic universality of science fiction, which tends to draw lines between an all-encompassing 'human Self' and an all-encompassing 'nonhuman Other'. In that sense *Casshern* is a call, made possible with the mediation of bio-technological developments, for a universal redefinition of the meaning of the human, which will include the non-human.[15] And from this point on, the traditional universality of science fiction could give birth to a new *human subject*, contrasted not to objects or nonhumans anymore, but only to its own *individuality*.

3. The Unimportant Difference between Humans and Non-humans and the Ethics of Badiou

This is the new meaning that Alain Badiou gives to universalism. Badiou is concerned with what the human means, but in an anti-essentialist way, with the human subject as becoming, as event. Without ignoring them, Badiou rejects the importance of all established human identities, because

they are partial clusterings of the infinite multiplicity of the world. According to his version of universalism, difference is simply what is; therefore, it is unimportant. On the opposite, the *Same* is the path that leads to the human as a category.

> […] since differences are what there is, and since every truth is the coming-to-be of that which is not yet, so differences are then precisely what truths depose, or render insignificant. […] Only a truth is, as such, indifferent to differences. This is something we have always known, even if sophists of every age have always attempted to obscure its certainty: a truth is the same for all.[16]

The truth lies beyond identities and individuals, because every identity is necessarily partial and reflexive. When Tetsuya decides to join the war against Eurasia, early in the plot, he acts not as a subject but as an individual, just like all the other 'humans' in the film do (both homo-sapiens and later *neo-sapiens*), protecting their own identity, and trying to impose it on others. We could even say, using the terms of Karl Marx, that they are only forms of *species-life* and not of *species-being*.[17] The true subject of Badiou goes beyond the reflexive subject, which is no other but the individual, exactly because its action does not come as a response to some external threat. The subject has nothing to lose.

Thus Badiou tries to imagine the subject beyond all differences in power, with which actor-network theory is concerned. While actor-network theory renders the ontological difference between humans and nonhumans unimportant and is concerned with the differences in power, Badiou is concerned with how humans can create their subjectivity, overcoming the established differences in power. Power is what the rivals in *Casshern* really fight for, while claiming that they fight for humanity. The human-nonhuman difference is again caught in the identity politics of the Self-Other opposition. Latour seeks to know how the nonhumans can shape humanity - how they have always been shaping it. Badiou how the humans can shape it a new - starting form the surrender of their partial identities. Badiou's universal subject is exactly a subject that gives up its own pre-given power and follows its subjective truth with fidelity, either in politics, science or art, in a way that cannot be else but good for everyone.

In *Casshern* Tetsuya denies his human identity, after the experience of an *event* - the war, the killing of another human. A *truth*, the process of subjectivization according to Badiou, comes from an event that points at what lacks from an established *situation*: in the case of Tetsuya, the void of the situation of a 'pre-established human-ness', which the Eastern Federation

proudly appropriates, is 'human' kindness, humanity starting from Good, and not as a reflection to the Evil coming from an external threat.

To go back to Latour, what is always missing from any established *situation*, lies in the fluid that connects the macro with the micro level, the social with the individual, the human with the nonhuman, in this *movement*, that not only makes the social but *is* the social.[18] To conclude, if humanity or human essence is what is missing from the situation, then it is to be found in the movement in which humans and nonhumans meet, which is no other but the *event* of the social.

4. Conclusion: Cyberpunk Thinking - A New Meaning of 'Resistance'

One of the primary themes of cyberpunk fiction, apart from the freedom of access to information and the fight against the corporations which exploit it, is the loss of boundaries between what is human and what mechanical, what is natural and what artificial, in a way more profound than that of the traditional science fiction. In my view, the singularity of cyberpunk lies in its overcoming of the human-machine or nonhuman dichotomy, and more precisely in the 'seeing-through' this dichotomy, expanding the glance to a social world outside, where often humans and machines share the same fate.

The need to access the truth, to 'brake the code', to unveil the hidden and sacred, was prevailing in cyberpunk. But this is also the path to every *truth* that human has to walk, according to Badiou, to confront the religious 'inaccessible'.[19]

Surrendering the classic science-fictional authoritarian universality to make a move towards the social, cyberpunk ended up caught in the identitarian game of resistance as redistribution of power, as many critics have pointed out.[20] According to Scott Bukatman:

> There is a reactionary face to cyberpunk, as technology becomes incorporated with a subject position that is strengthened but otherwise unchanged […].[21]

Fights over identity (either majoritarian or minoritarian) are always fights over power, and perfectly compatible with capitalism. Likewise, technology caught in this identity politics can only serve established power -it is a capitalistic appropriation of technology. Cyberpunk as a mode of thinking starts where cyberpunk as a genre ends. It is no longer concerned with technology as a tool for access, in the same time manipulated and constantly threatening to take over, but as mediation for a truth, in the sense that Badiou gives to the term, through identification with the technical, the not-original, outside the identitarian and possessive logic.

What I suggest here is a re-appreciation of cyberpunk's virtues, keeping the social speculation over technology but without ending up defending established identities and utilizing technology for partial interests. The point is to question - ethically and ontologically - through our encounter with technologies, our own human identity and try to think universally and truly socially. Opening up from reflexivity to the emergence of the social.

Notes

[1] The critiques vary from 'one of the most visually exhilarating anti-war movies ever made' to 'mostly incoherent, muddled to the point of being overly pretentious', (S T Van Airsdale, 'This weekend in blown Minds: Casshern!', *Reeler Inc.,* New York*,* 2007, retrieved June 4th, 2008, <http://www.thereeler.com/the_blog/this_weekend_in_blown_minds_ca.php >, (critique by 'Nix' in the article: 'Casshern: movie review', *BeyondHollywood.com*, 2004, updated and retrieved on June 4th, 2008, http://www.beyondhollywood.com/casshern-2004-movie-review/).

[2] Both by commercial sites like amazon.com, as well as by genre-specific cult sites like cyberpunkreview.com.

[3] The choice of the gender is not random here, as only the female human characters (Midori and Luna) are presented as having compassion.

[4] There are of course many other possible interpretations, like that of an allegory for the role of Japan in both world wars, but that exceeds the scope of this paper.

[5] As put by N Lee & P Stenner, 'Who pays? Can we pay them back?', in *Actor Network Theory and after*, J Law & J Hassard (eds), Blackwell, Oxford, 1999, p. 94-95. See also B Latour, *We have never been modern*, Harvard University Press, Cambridge, 1993.

[6] Interestingly, when human identifies with 'nature' against the non-natural, technological other, he does it in the name of a predefined 'purity' of nature, of which he sees himself as possessor and controller.

[7] J Law, *Organizing Modernity*, Blackwell,, Oxford, 1994, p. 193.

[8] According to a conception of agency derived from causality and not morality, which was introduced by Heidegger, as N Lee and S Brown ('Otherness and the Actor-Network: the undiscovered Continent'. *American Behavioral Scientist*, 37:6, 1994, p. 773) show.

[9] ibid, pp. 792-90.

[10] B Latour, 'On recalling ANT', in *Actor Network Theory and after*, op. cit., p. 20.

[11] J Law, 'Notes on the Theory of the Actor-Network: Ordering, Strategy and Heterogeneity'. *Systemic Practice and Action Research,* 5:4, 1992, pp. 379–93.

[12] Latour, 'On recalling ANT', p. 20.
[13] ibid, p. 16.
[14] Law, 'Notes on the theory of the Actor-Network'.
[15] We cannot ignore the non-western cultural origin of the film, neither its anime and manga influences (*Casshern* is actually loosely based on a 1973 anime television series, titled *Shinzō Ningen Kyashān*, though in the original series the human-nonhuman contradiction was absolute) which possibly contribute to its greater openness to the nonhuman.
[16] A Badiou, *Ethics: An essay on the understanding of Evil*, Verso, London, 2001, p. 27.
[17] For a discussion of the Marxian distinction between species-life and species-being, see E Fromm, *Marx's concept of man*, Frederick Ungar Publishing Co., New York, 1961, pp. 49-58.
[18] Latour, 'On recalling ANT', p. 17.
[19] From Badiou's letter to Peter Hallward, 19 June 1996, cited by P. Hallward in his introduction to the English translation of *Ethics*, p. xliii.
[20] For criticism on cyberpunk see among others: A Balsamo, *Technologies of the Gendered Body: Reading Cyborg Women*, Duke University Press, Durham: North Carolina, 1996; N Nixon, 'Cyberpunk: Preparing the Ground for Revolution or Keeping the Boys Satisfied?', *Science-Fiction Studies,* 19:2, 1992, 219-35; N Easterbrook, 'The Arc of Our Destruction: Reversal and Erasure in Cyberpunk', *Science Fiction Studies,* 19:3, 1992, pp. 378-94.
[21] S Bukatman, *Terminal Identity: The Virtual Subject in Postmodern Science Fiction*, Duke University Press, Durham, 1993, p. 315.

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Part VII

Robots-Cyborgs & Replicants

Beholding the Uncanny: Replicants, Cyborgs and Clones in Science Fiction

Michael J. Klein

Abstract
The portrayal of artificially produced organisms in the works of science fiction dates back to the origins of the genre. These works have envisioned societies confronting the 'other' in the form of organisms that are 'not of woman born.' Whether in the form of cyborgs or clones, these characters often upset the balance of their societies, causing havoc and inviting scorn and misunderstanding. Ostensibly these works can be read as cautionary tales about the excesses of technological hubris in the face of modernity. However, the real focus of these works is not on the replicants and cyborgs, but on the fictional societies that spawn these creations, and by extension, the factual societies in which the authors were writing their stories. These works disconcert and inform their audiences, forcing the audience's revaluation of its own prejudices against those they see as separate from themselves.

Key Words: Science Fiction, Clone, Android, Alternative Reproduction.

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1. Introduction

Science fiction operates as a form of modern myth in our technological culture. An examination of books on artificial reproduction reveals the underlying concerns of the authors and directors. Individuals who invoke the names of works such as *Frankenstein* and *Brave New World* reference the myths, not the actual stories. Although these works comment on the power of science and technology in a society, this does not represent the primary critique offered by either author. For both authors, the idea of technology without regulation and without regard for human dignity outweighed concerns about just technology *per se*.

An examination of films finds that their critique of science impugns the morals of the scientists and industrialists who develop genetic engineering and cloning for selfish purposes, not the offspring of modern biotechnology. Rather than be alarmed by the creation, these films direct the audience to fear the creators of these non-traditional offspring. In holding a mirror up to our own society, these films say we should not use this

alternative forms of reproduction; not because of the destructive nature of the new offspring, but because of our potentially destructive nature.

2. Frankenstein: Tension between Science and the Natural Order

Frankenstein stands at a crossroads, bridging the gap between the two literary genres of romanticism (especially the gothic) and science fiction. While romanticism dealt with nature and conditions of natural society, writers conceived science fiction as a response to the rapid developments in science and technology brought about by the Industrial Revolution in late eighteenth-century Europe. This bridging function becomes evident in the way the novel deals with the subject of the reanimation of the dead set against the role of family. This tension between familial duty and scientific inquiry represents the primary theme of the novel.

The Industrial Revolution served as the most significant change affecting society when Shelley wrote *Frankenstein.*[1]

Beginning in Britain and still in its infancy in 1818, the Industrial Revolution rapidly transformed manufacturing processes and the production of material goods. Machinery starting producing traditionally handcrafted items as the early stages of semi-automation began. A subsequent dependence of workers on the scientific processes and technological products became an integral part of society.

Shelley's novel serves as a critique of man's changing interaction with nature through scientific methods not as an indictment of science itself:

> The myth of Frankenstein registers the anxieties of the period inaugurated in the twin social and industrial revolutions in France and Britain. […] The myth which [sic] develops out of it turns repeatedly upon these new problems of an age in which humanity seizes responsibility for re-creating the world, for violently reshaping its natural environment and its inherited social and political forms, for remaking itself.[2]

Frankenstein portrays the tension between the old and the new-the early modern and the modern-and has become the rallying cry for those who believe technologies impinge upon society's stability. Instead of just re-creating the world, science stands on the brink of re-creating the human.

At first glance, the novel does indeed seem to be solely about the foibles of scientific research that pushes the boundaries of knowledge. At an early age, the protagonist Victor Frankenstein becomes enamoured of the works of physicians and scientists of the Middle Ages. However, after witnessing the effects of a lightning strike on a tree, Victor stops examining the works of the past and enrols in the University of Ingolstadt to study. This

transition from the old to the modern as the focus of Victor's studies proves pivotal, as it sets him on his way to explore the possibility of reanimating dead flesh by applying the scientific method to his studies.

While ultimately successful in his quest to reanimate life, Victor expresses moral repulsion for the Creature's physical hideousness. Victor runs away from his laboratory, hoping to distance himself from the hideous creature. In abandoning his offspring, Victor sets the events of the novel in motion: the work demonstrates the necessity of parental responsibility and familial relations, not the destructive power of science.

Victor's rejection of his 'son' forces the Creature to leave and experience the world alone. Because he inspires almost universal repulsion, the Creature hides from others, teaching himself how to speak through the reading of books, including *Plutarch's Lives* and *Paradise Lost*. Milton's work, in a fashion similar to *Frankenstein*, tells the story about a new type of offspring (Adam) and his relationship with his father, God. However, while God punishes Adam for his transgressions and casts him out from the Garden of Eden, Victor casts the Creature out for simply existing.

Frankenstein's subtitle *The Modern Prometheus* alludes to the myth of Prometheus and his punishment for the theft of fire and the creation of the human race. Unlike Prometheus, punished for his transgressions by the gods, Victor receives retribution from his offspring, not for his act itself but for his subsequent behaviour. Through this portrayal, Shelley offers a critique of science without responsibility and without governance. Victor's reluctance in acknowledging his paternal responsibilities to the Creature infuriates the Creature and starts him on his homicidal spree.

3. Brave New World: The Imperative of Societal Control

If *Frankenstein* serves as a tale that warns of science without supervision or boundaries, then *Brave New World* demonstrates what happens when society regulates everything.[3] Written in 1932, the novel depicts a future society of the 26th century in which the state manufactures everything (including people), thus embracing the ideals of mass production in Huxley's own time (the industrialist Henry Ford functions as the deity for the populace of the World State). With the Bokanovsky's Process, a procedure through which fertilized embryos divide multiple times, humans create babies in identical batches. Humans developing in large batches leads to uniformity, eliminating differences which could result in prejudice or hatred, all impediments to the society's foremost goal: stability.

With the creation of humans in the laboratory, the traditional family no longer exists. Children grow up in public crèches, separated according to their class and function. The World State now considers words such as 'mother' and 'love' offensive, and forbids any sort of long-term human relationships. The State entertains it citizens through its own form of bread

and circuses, including feelies, mildly pornographic films that stimulate all the senses, and *soma*, a drug dispensed freely to the populace to keep them happy. Art and literature no longer exist because their contents made people uneasy and unhappy, and even science produces only applied technologies.

The protagonist of the book, John the Savage, lives with his mother on a New Mexico reservation, the result of an 'unnatural' conception and birth. Like the Creature, the Savage has educated himself through the works of Shakespeare (the title of Huxley's work comes from a passage in the *Tempest*). Brought back to the World State, the Savage displays naiveté when it comes to the norms and values of his new society. Initially fascinated with what he sees, the Savage eventually becomes disillusioned and despondent. Although the population remains happy through use of conditioning and drugs, the Savage, aware of life outside the World State, cannot accept the rigid order placed on life.

Near the end of the novel, the Savage talks with the World Controller Mustapha Mond about the reasons for society's current state. Mond explains to him that after last war, the survivors decided that such an event could never take place again. Thus, the state must take it upon itself to provide order for its inhabitants. A well ordered society precluded future conflicts by eliminating anything unnecessary, including art. ''But that's the price we have to pay for stability,'' Mond tells the Savage. ''You've got to choose between happiness and what people used to call high art. We've sacrificed the high art.''[4]

Thus, this artificial dichotomy depicts the core of Huxley's critique:

> Through their [the Savage and Mond] conversation, Huxley focuses on the central problem that *Brave New World* is set up to explore: the extent to which happiness must necessarily exclude freedom and to which freedom must include unhappiness. The new world civilization is predicated on the conviction that happiness and freedom are mutually exclusive and that happiness is the greater good.[5]

Like Shelley before him, Huxley examines society's use of science and technology but does not condemn them outright. Rather, Huxley depicts a society embracing technology while casting aside other social endeavours, especially the drive for creativity. While order may be necessary to a certain extent in society, personal expression, be it through art, literature, or even the love of another person through social bonds, make us uniquely human and become necessary for us to retain our humanity. Science is not bad; but a society that only focuses on science to the exclusion of all other accomplishments becomes wretched.

4. Blade Runner: Defining the Human

Ridley Scott's 1982 film *Blade Runner*-based on Philip K. Dick's 1968 novel *Do Androids Dream of Electric Sheep?*-offers the audience a nuanced examination of the theme of how society defines humanity.[6] In the future the Earth has become highly polluted, almost all natural animals have died, and most of Earth's population has left for space colonies. Replicants, artificial humans constructed by corporations, live only on the off-world colonies performing tasks too menial for humans. While physically similar to humans (but with increased strength), the replicants display limited emotions. Only the results of a Voight-Kampff test, which measures emotional and physical responses, can differentiate between humans and replicants.

This inability to differentiate humans from more evolved replicants symbolizes the failure of humans to maintain control over technology.[7] Just as humans in *Blade Runner*'s alternate future have laid waste to their cities with nuclear weapons, humans now lose their ability to identify the replicants they built to serve them. The replicants' revolt also demonstrates this fear: losing control of a creation and having it run amok, similar to what the Creature does in *Frankenstein*.

The story focuses on Rick Deckard, a police officer sanctioned to 'retire' replicants who have returned to Earth. In his pursuit of a group of five replicants, Deckard starts to examine his own motivations and questions the biological and cultural divide between humans and replicants. Part of his inquisitiveness results from his meeting with the replicant Rachel, the niece of the owner of the Tyrell Corporation, one of the largest manufacturers of replicants. She 'fails' the Voight-Kampff test, but only after Deckard administers more than twice the standard number of questions.

Rachel confronts Deckard, offering a photo of herself as a child as proof of her human heritage. Deckard reveals his knowledge of events she has told no one previously, proving her artificial back-story. The news devastates them: if technology can construct memories, then it can construct objects that serve as memory devices, such as photos. Blurring the clean division between natural and artificial life forces the characters, and the audience, to re-examine their own definitions of what it means to be human, and focus on similarities rather than differences.

This blurring of the human/non-human, natural/artificial boundaries established by reproductive technology raises another fear. If we cannot trust our memories or photos we have of ourselves, than how can we know who or what we truly are? However, this portrays the very point of Tyrell's work. As Tyrell says, his business creates replicants 'more human than human.'

The final distinction between the two groups, humans and replicants, dissolves at the climax of the film when Batty saves Deckard from falling off a building, preserving his life. The gesture becomes especially poignant because it occurs moments before Batty dies because of his pre-programmed

lifespan. Batty has exhibited empathy towards another living creature, becoming more human than those who pursued him do.

Like the Creature from *Frankenstein*, Batty has sought his maker, and in doing so, has come to realize the value of life. However, unlike Shelley's creation, Batty has this realization before he dies, saving the life of the man bent on his destruction:

> Because the film focuses so intensely on Batty's figurative reaching out for life, his literal and inexplicable reaching out to save Deckard becomes highly symbolized gesture that transforms this monster into the truly tragic romantic figure that Shelley's Monster never becomes.[8]

Blade Runner questions our notions of humanity by making the replicants of the film appear lifelike, while at the same time bringing into question the real nature of life. Once replicants gain the ability to empathize then they deserve equal treatment: not as slaves, but as individuals. The society that manufacturers and enslaves these naïve creatures becomes guilty of heinous crimes, more problematic than the crimes committed by replicants trying to escape their forced captivity.

5. GATTACA: Genetic Essentialism and Undue Expectations

Instead of depicting a world with replicants, a world where manipulation of humans has become the norm provides the scenario for Andrew Niccol's 1997 film *GATTACA*.[9] In the not so distant future, humans have nearly perfected genetic engineering, allowing couples to select desirable traits for their offspring, rather than leaving the process to chance. This process creates 'natural' children, the old process of reproduction now labelled unnatural. Society has labelled these individuals conceived without the benefit of genetic engineering 'faith births' or de-gene-erants. Though officially illegal, genoism-discrimination against individuals based on their genetic make-up-exists, in both hiring practices and daily life.

In the society of *GATTACA,* genes predicate the life of all children regardless of their method of birth. Genetic tests indicate mental, physical, and emotional deficiencies, often limiting the choices afforded to children as they grow. The analysis of DNA charts everything about a person including their probable cause of death. Invariably, this knowledge 'seems to dampen human initiative, while living up to one's technologically determined potential can also be daunting.'[10] The society in *GATTACA* embraces genetic determinism and eugenics taken to an extreme.

Updating the eugenics movement, the world of *GATTACA* relies on advanced technology rather than selective breeding to create better offspring.

The film, however, depicts those created through this alternative technology the ones society rewards and values rather than those conceived through traditional methods. Members of this society have divided into two classes, with the genetically inferior subject to harassment, prejudice, and regulation. The film introduces the audience to one of these faith babies, Vincent Freeman, who dreams of becoming a flight engineer for the corporation Gattaca. At birth, Vincent's parents received the news that he had a 99% chance of dying young due to an abnormal heart. His parents have treated Vincent like an invalid, though he does not exhibit any physical limitations. Not wishing to tempt fate twice, Vincent's parents create his brother Anton 'naturally.' He becomes Vincent's physical, but not necessarily his intellectual, superior.

Unable to find work, and not appreciated by his parents as much as his sibling, Vincent strikes out on his own. Frustrated by his inability to get a non-menial job (he works as a janitor at Gattaca), Vincent decides to buy the identity of a genetically ideal individual, Jerome Eugene Morrow. Because of the nature of this society, genetic profiles have become the most precious commodity. Utilizing Jerome's bodily fluids and clippings (hair, blood, urine, etc.), Vincent takes on the name and identity of Jerome (while Jerome now only uses his middle name, Eugene) and gains employment at Gattaca, this time as an engineer rather than a janitor.

In a society that places so much faith in technology, people trust readouts of DNA rather than believe in their senses. They have become myopic because they trust the results provided by technology without question, believing machines infallible. However, trust in humans rather than in technology remains the key to improving the race because superior genes do not necessitate superior morality. The filmmakers depict the use of technology in improving the species as unproblematic:

> Unlike most bioethics texts that discuss gene therapy, however, *GATTACA* maintains that many of the problems associated with the new eugenics, such as genetic discrimination, genetic prophecy, and the homogenization of society, are not due to the technology itself. Rather, *GATTACA* proposes that these problems will only arise if the belief that individuals are no more than the sum of their genes becomes a matter of consensus: a black box.[11]

There is nothing wrong with seeking to improve the physical attributes of individuals as long as we seek to improve the emotional ones. Engineered humans might be physically superior but they suffer from the same emotional weaknesses that their predecessors did, including discrimination. Enhancement needs to be as much about the spirit as about the body.

6. Conclusion

Frankenstein and *Brave New World* deal with the loss of humanity through the auspices of technology. In *Frankenstein*, Victor exhibited moral failure, not because he created the Creature, but because he abandoned his responsibilities for his creation. While we identify with the society portrayed in the book, we also identify with the Creature, an orphan of early-modern society who must educate himself and rise above his 'humble beginnings.' In *Brave New World*, the situation reverses, with John the Savage taking on the role of the Creature. John mirrors the horror we feel for the society he has been introduced into. Huxley condemns this society not for its use of technology but for its worship of it in place of all other human endeavours.

The films share many of these themes, depicting the effects of an over-reliance on technology and the subsequent marginalization of those who fall into socially constructed categories of the undesirable. The creation of individuals through artificial means alters the way society conceives of reproduction, the creation of life, and defines the natural. Conversely, even as technology shapes society, members of society remain accountable for the effects of technology. Scientists cannot ignore the repercussions of a technology, dismissing the effects as someone else's problem. Just as they worry about how their new offspring will act towards them, members of society must appreciate the way they will react to their discoveries.

Notes

[1] M Shelley, *Frankenstein*, Norton, New York, 1996.
[2] C Baldick, *In Frankenstein's Shadow: Myth, Monstrosity, and Nineteenth-century Writing*, Oxford UP, Oxford, 1987, p. 5.
[3] A Huxley, *Brave New World*, Perennial Classics, New York, 1998.
[4] ibid, p. 220.
[5] G A Nance, *Aldous Huxley*, Continuum, New York, 1988, p. 80.
[6] *Blade Runner (The Director's Cut)*, DVD, directed by Ridley Scott, Warner Home Video, Burbank, CA, 1997.
[7] N Galagher, 'Bleak Visions: Ridley Scott's *Blade Runner*. Director's Cut', in *Australian Screen Education*, vol. 29, Winter 2002, p. 170.
[8] J Abbott, 'The 'Monster' Reconsidered: *Blade Runner*'s Replicant as Romantic Hero', in *Extrapolation*, vol. 34, 1993, p. 348.
[9] *GATTACA*, DVD, directed by Andrew Niccol, Sony Pictures, Culver City, CA, 1997.
[10] S A George, 'Not Exactly 'of Woman Born': Procreation and Creation in Recent Science Fiction Films', in *Journal of Popular Film & Television*, vol. 28, is. 4, Winter 2001, p. 179.

[11] D A Kirby, 'The New Eugenics in Cinema: Genetic Determinism and Gene Therapy in *GATTACA*,' in *Science Fiction Studies*, vol. 27, 2000, pp. 211-2.

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My Self, My Avatar, My Rights: Rights of Avatar Identity and Integrity in Virtual Worlds

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Abstract
Many people invest a lot of time and money in developing and customising their avatar, and consequently feel closely bonded with that avatar. This interdisciplinary paper will undertake a psycho-sociological analysis of the relationship between users and their avatars in social virtual worlds, and an assessment of the implications of this analysis for establishing legal rights in avatars.

Key Words: Avatar, Identity, Regulation, Virtual Worlds.

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1. Introduction

This paper is an examination of the relationship between self-expression, consumerism and identity in virtual worlds. In particular, the paper presents a psycho-sociological analysis of the relationship between users and their avatars in social virtual worlds, and an assessment of the implications of this analysis for establishing legal rights in avatars. The paper argues that normative questions relating to the extent to which users should have rights in their avatars necessarily depend upon the particular paradigm applied to understanding the relationship between users and avatars.

2. Avatars in Social Virtual Worlds

The term *avatar,* derived from the Sanskrit for 'incarnation', has come to refer to a user's online representation of herself or himself.[1] The term, can mean any online representation of a user, including a simple screen name, the purely text-based constructs of early Multi-User Dungeons (MUDs), a two-dimensional icon used on internet forums, a pre-set visual character used in computer games, or a personalised three-dimensional visual representation used in social virtual worlds.

Our current understanding of what amounts to an 'avatar' therefore lies on a continuum ranging from relatively simple forms of identity choices to choices that are becoming ever more complex, as virtual worlds become more sophisticated and immersive, and as the functionality of online bearers of identity increases. This continuum can, in fact, be traced to simple

representations of players in traditional off-line games. In different ways, and to varying degrees, traditional games have always offered players a choice of in-game identity. In chess, for example players have the choice of black or white pieces and in *Monopoly*, the choice of racing car, top hat or shoe.

The nature of in-game identity formation became more complex with the advent of formal role-playing games, which have at their very core the adoption of player-created in-game identities. These formal role-playing games (RPGs) have taken a variety of forms, ranging from live action games, such as *How to Host a Murder*, to traditional table-top strategy games, such as *Dungeons and Dragons*. The pencil-and-paper RPGs, such as Dungeons and Dragons, were the progenitors of the first digital RPGs, which emerged in academic computer networks in the late 1970s. These digital RPGs, which became known as MUDs, were purely text-based worlds that revolved around the creation of an in-game character, with a declared name, qualities, abilities and preferences. In early MUDs, player self-expression through their digital identity was severely constrained by the rules of the RPG and game-play. With the development of graphical MUDs, and the increasing functionality of MUD-based programs, the visual appearance of a user's online character, as opposed to other characteristics of the avatar, became more significant.

In the late 1990s, the increase in computing power and readily available internet connectivity resulted in the development of multi-user online graphical RPGs, known as massively multiplayer online role-playing games, or MMORPGs. While there is considerable divergence among MMORPGs, they share a number of features, especially the extent to which activities are goal-oriented, often taking the form of 'quests'. Within this context, the progressive development of each user's character through, for example, the accumulation of 'experience points' is, at the very least, a significant objective. At the same time, the overall goal-oriented character of these MMORPGs establishes some constraints on the ability of a user to create and modify her or his online representation. For example, in *World of Warcraft,* a new player must choose her or his online representation, known as a 'character', from two factions, 'Alliance' and 'Horde', and ten playable races.

MMORPGs must be distinguished from what may be termed social virtual worlds, which are essentially platforms for unstructured social interaction, rather than goal-oriented games. In social virtual worlds, such as *Second Life*, (SL) users can create and operate their avatars largely free from restrictions or rules. The visual appearance of the avatar assumes the utmost importance as it is the key medium for users to express themselves and their individuality, and the main way for users to signal their identity to other users. Consequently, a major activity in social virtual worlds consists of the customisation of the appearance of an avatar by, for example, the alteration of body shape, skin, eye colour, and hair colour or style. The extent to which

a user is able to personalise her or his online representation and, correspondingly, the amount of time and resources invested in this activity, obviously influences the intensity of the relationship between the user and her or his avatar. Accordingly, this paper focuses on an analysis of the relationship between users and avatars in those social virtual worlds, such as SL, that provide the greatest capacity for individual modification of avatar appearance.

3. Identity Formation in Social Virtual Worlds

In complex, technologically-mediated, post-modern societies, problems relating to identity - including the nature of self-identity and subjectivity - have become absolutely central to socio-political analysis.[2]

This is related to the progressive disconnection of individual identities from traditional, more rigidly-defined, collective identities. For example, in his influential account of the differences between identity formation in traditional societies and in post-traditional societies, Giddens draws an important distinction between personal identity and social identity.[3] According to Giddens, the problem of identity is central to modern societies in ways that it was not in traditional societies, as traditionally identity was essentially externally determined, whereas in modern societies, self-identity is made and not inherited. Thus, Giddens explained that, in post-traditional societies, identity is a 'reflexive' project, in which individuals must create themselves by means of their own narrative. In this way, Giddens was able to relate the contemporary focus on identity formation to broader institutional and political forces, including globalisation and the progressive fragmentation (or disintegration) of modern and postmodern societies.

Problems of identity formation have been extensively applied to the online context by theorists, commencing with Sherry Turkle in her seminal work, *Life on the Screen*.[4] Largely through an exploration of text-based MUDs, Turkle essentially argued that the exploration of identity through online interactions could be therapeutic, involving a continual reconstruction of the self through simulation. Turkle drew an important connection between experimentation with online identities and postmodern theory, maintaining that online interactions illustrate the extent to which life is discontinuous, fragmented, episodic and consequences-avoiding.

Interestingly, the relative lack of constraints in social virtual worlds, such as SL, does not mean that such worlds are characterised by a lack of rules. Indeed, it appears that rules and ritualised behaviour, generated by communities of users, become relatively more important than in other online environments. For example, in SL there are distinct communities of users, such as Goreans and vampire bloodlines, whose interactions are characterised by extremely strict, and often quite detailed, rules of behaviour.[5]

A possible explanation of the importance of community rules in social virtual worlds can be found in the work of Judith Donath. Donath has applied signalling theory to investigate the revelation and withholding of identity information in online environments.[6] Signalling theory, which analyses honesty and deception in communications, models the relationship between 'signals' and 'qualities' in order to show why some signals are reliable, while others are not. In social virtual worlds such as SL, the most important signals, such as name, avatar appearance and profile information, are both more highly controlled, and more malleable, than in offline contexts. Offline, there are a range of complex signals that are transmitted and processed, both consciously and unconsciously, concerning individual identity. For example, there are subtleties of gestures, body language, eye movement and voice intonation that are difficult to replicate online. As the accuracy of identity signals is more difficult to authenticate online, there is a need to develop a range of online signals, such as the exaggerated appearance of avatars and adherence to ritualised forms of behaviour. Thus, the exaggerated appearance of avatars, which often take the form of highly stereotyped characters, transmits immediate visual signals that may form the basis for future interactions. Similarly, the adoption of strongly rule-based forms of behaviour serves to ease anxieties about predictability in the absence of the full range of offline signals. In this respect, there are apparent parallels between communities in social virtual worlds and prison-based communities where the inmates are stripped of the accustomed richness of signals which form the basis for interactions outside of the prison walls.[7]

There is also a corresponding convergence of online and offline models of identity formation, arising in part, because identity formation increasingly incorporates a virtual component. Consider, for example, the success of virtual communities such as *Facebook*, illustrating increasing dependence on the virtual for a continuing affirmation of self-identity. The virtual continues to 'bleed' into the real with the development of virtual 'friendships'. As a consequence, it appears that people are adopting and using some of the signalling behaviour learnt online to the offline context with an emphasis on appearance, and on the superficial and transient, over depth and persistence.

4. Implications of Identity Formation in Social Virtual Worlds

Post-modern theories of identity formation, on the fluid and fragmented nature of the self, are bifurcated into those who see the fragmented self as an opportunity for the creative exploration of multiple identities and those who regard these developments as, overall, a form of impoverishment of the self. Sherry Turkle, for example, highlights the potentially liberating features of the discontinuous, fractured and episodic nature of post-modern life. As opposed to this, Richard Sennett, in his book

The Corrosion of Character, sees the fragmented self as degenerating into a kind of 'supermarket identity', where each individual is in a perpetual state of anxiety about self-identity, which is dealt with by purchasing and consuming scraps of identity, that never quite fill the void.[8]

These competing tendencies in postmodern identity theory are related to the coexistence of modern and postmodern identities, a feature of contemporary societies that has been explored in the work of the sociologist, Zygmunt Bauman.[9] Modern identity formation is based on a unitary concept of self-mastery, control of the contingent that leads to an idealised view of the perfectible self. The modern self is therefore defined in terms of a coherent project or narrative but, as the perfectible self can never be achieved, there is a void at the centre of the self that leads inexorably to alienation. The postmodern self, on the other hand, is based on the avoidance of any fixed identity, or ordered structures, with life being a series of fragmented, short-term events.

The coexistence of the modern self and the postmodern self in contemporary societies has significant consequences when set against the backdrop of globalised market economies. The modern self is caught in a Sisyphean search for an ideal identity - for self-fulfilment - which the market promises can be purchased and consumed, but the postmodern self can only ever be ephemeral, as identity must continually be rebooted. Personal identity therefore becomes a process of continual questioning, which can never have any fixed answers. It is in this broader context that identity experimentation by means of the visual appearance of avatars must be positioned.

5. Self-expression, Consumerism and Identity Formation in Social Virtual Worlds

Just as there are two main interpretations of postmodern identity formation, there are two interpretations of the form of identity experimentation consisting of the acquisition and modifications of an avatar.

On the first view, these activities are a form of creative self-exploration, with the avatar comprising an extension of the offline self, and social virtual worlds presenting opportunities for forms of identity play that are not available offline, where the self is necessarily framed by a physical body. Applying this view, which feeds into the well-established cyberliberation and cyber-transcendence memes, avatars represent an opportunity for liberation and social virtual worlds are an important, relatively unconstrained, platform for self-development.

The second view is that the fully customisable avatar represents the *reductio ad absurdum* of globalised consumer culture. On this view, the search for postmodern identity is neatly encapsulated by the obsessive, and apparently endless, modification of the appearance of avatars by means of the purchase of new skins, apparel or other accoutrements. Thus, the self is

condemned to the interminable, but unsatisfying, consumption of the virtual self.

The two views of identity formation via avatars are associated with two fundamentally different ways of conceptualising the relationship between a user and her or his avatar. Applying the first view, if we interpret an avatar as a vehicle for self-exploration, then it represents a virtual extension of the user as a person; a creative projection of the self into the virtual world. On this approach, rights in or over avatars should be conceptualised as essential to the protection and promotion of the dignity and autonomy of users in virtual worlds. If the second, consumerist view is adopted, however, avatars are reducible to mere tools or puppets, to be used for the predominantly instrumentalist purposes of the user. On this approach, the relationship between the user and her or his avatar is essentially proprietorial, with the user having ownership rights in the avatar which may be readily bought and sold in the marketplace. On one view, rights in an avatar are an aspect of the rights that a user has in her or his person, whereas on the other view, avatars are little more than tools for the satisfaction of the consumerist needs of the user.

In determining a legal regime that establishes user rights in avatars, it is of the utmost importance to choose which paradigm to apply. In this respect, the key normative legal issues are, first of all, whether the rights of users in avatars should be able to override the terms of service established by the provider of a social virtual world and, secondly, assuming that there is a case for overriding the terms of service, what are the circumstances, and on what basis, should the terms of service be overridden?

6. Avatar Identity: Current Legal Issues

The primary source for rights and rules affecting avatars is, as with everything else regarding virtual worlds, the relevant Terms of Service (ToS). The ToS are generally a one-sided contract for the benefit of the service provider, the only option the user having in the event of not being content with the ToS is exit. Even in SL, which promotes itself as the only world which grants rights of ownership to users of their creations, none of these rights are clearly defined, either in the ToS or any other Linden decree. The relevant ToS state that users retain copyright and all other intellectual property rights with respect to the content they create ‘to the extent that’ they have such rights under applicable law.

Whilst the grant of ownership of copyright in creations in SL is well publicised, less well promoted are the exceptions also granted by the ToS. Users grant Linden Lab a worldwide licence to use, reproduce and distribute their content, including the right to delete such content at any time. Further, at the core of much user-generated content will be Linden Lab intellectual

property, such as textures and scripts. The user is expressed to have rights to use such Linden content only whilst they in compliance with the ToS.[10]

So is it possible to clearly define in legal terms what the position is regarding a person's ownership of intellectual property rights with respect to their avatar in SL? The lack of clarity of the ToS is further exacerbated by the practical fact that everything that is created within SL is currently stored on the Linden Lab servers in the form of computer code. Therefore, although the residents may think of their creations in terms of 'things', such as clothing or buildings, they are really the output of a computer program. That program is created and owned by Linden Lab. If Linden Lab were to go out of business overnight, and their servers seized and all content residing thereon deleted, the avatar, no matter how lovingly created, or how much money had invested in it, would cease to exist outside of photos and imagination. Thus, as Marcus has recently observed: 'the total copyright environment is one of unclear rights and potentially infringing creative activity.'[11]

What does this mean for projects which purport to offer users the ability to take their avatar outside of the walled garden of the game or world in which that avatar was created? In October 2007, Linden Lab and IBM announced a joint project to develop open standards to enable avatars to roam from one virtual community to the next. The goal is let a person create a digital alter-ego that can travel to many virtual worlds, keeping the same name, look and even digital currency. The companies speak of 'a truly interoperable 3D Internet.' Of course, this implies that a user is free to take the avatar they have created in one world and move it into the next.[12]

The sole legal consideration of the ownership issues in the virtual world context to date has been by the United States District Court for the Eastern District of Pennsylvania, in a case which commenced in 2006. The plaintiff, Marc Bragg, a US attorney known in SL through his avatar, Marc Woebegon, owned a number of land parcels in SL and also operated a business selling virtual fireworks. Linden Lab alleged that in April 2006, Bragg obtained a parcel of SL land in breach of the ToS. Linden Lab terminated Bragg's account and confiscated all of his inworld assets (estimated value between US$6000-8000). Bragg brought an action against Linden Lab and CEO Philip Rosedale, claiming breach of the trade practices and consumer protection law, fraud, conversion, breach of contract, unjust enrichment and other claims in tort and contract. Linden Lab and Rosedale resisted the action on a number of grounds, in particular, they filed a motion to compel arbitration of the dispute in San Francisco in accordance with the ToS. Robreno J held that the arbitration clause was unenforceable on the basis of procedural and substantive unconscionability. The case was settled in October 2007 without resolving the question of whether what Bragg possessed was virtual property and thus not providing any guidance on avatar rights. It is likely that Linden wanted to avoid opening up the question of

whether any rights existed in Bragg's in-world assets outside the Linden-favourable ToS.

Another development is the increasing interest in marketing to avatars in-world. This raises the question of to whom the marketing is targeted, the avatar itself or the person behind the avatar?[13] Notably, the operators of online communities retain the ownership of data generated about the user and this data may prove to be extremely valuable, in terms of transaction patterns, data about consumption and friendship groups. Privacy rights have yet to be created for avatars, yet of course, much of their data would map neatly against the interests of the human behind the avatar. Again, it is likely that users are not aware of the rights they give away in the standard ToS. For example, the SL ToS provide that Linden may observe and record user interactions within SL, and share that information with third parties. Further, Linden may collect and share general and demographic information, and may track, record, observe and follow your actions within SL. [14] Such rights may be become more valuable and contentious with the rise of new 'consumer worlds' such as *Kaneva* and *Sony Home*, which encourage the user to create an avatar which is a virtual clone, programmed with the user's personal details and preferences. The ability to protect the identity, privacy and integrity of such an avatar may be even more important than with respect to the lovingly created social butterflies of SL.

7. Conclusions

We are only beginning to understand the psychological and social processes underlying the creation and use of virtual world avatars and still further away from resolution of questions of avatar rights. What is clear is that, as users become more closely bonded with their avatars and invest more of themselves in those creations, they will become more concerned with protecting that investment, and the expressions of self embodied in those creations. Also, as social worlds emerge into more commercial environments, the protection of the information and creativity embodied in those avatars will become more important. It may be necessary to curtail the power of the ToS by introducing general laws that respect and protect the rights of the virtual self, through the grant of rights such as privacy and freedom of expression.

Notes

[1] In this context, the term was originally used for a character in the 1985 computer game *Ultima IV,* before being popularised by Neal Stephenson in his 1992 cyberpunk classic, *Snow Crash*, see 'Avatar (computing)', in *Wikipedia,* June 2005, viewed on 4 June 2008,

<http://en.wikipedia.org/wiki/Avatar_%28computing%29>; N Stephenson, *Snow Crash,* ROC, London, 1992.

[2] See A Elliott, *Concepts of the Self,* 2nd ed, Polity, Cambridge, 2007.

[3] A Giddens, *Modernity and Self-Identity: Self and Society in the Late Modern Age,* Stanford University Press, Stanford, 1991.

[4] S Turkle, *Life on the Screen: Identity in the Age of the Internet,* Weidenfeld & Nicholson, London, 1996. See further, S L Calvert, 'Identity Construction on the Internet' in S L Calvert, A B Jordan & R R Cocking (eds), *Children in the Digital Age: Influences of Electronic Media on Development,* Praeger, Wesport, Connecticut, 2002, pp. 57-70 and J S Donath, 'Identity and Deception in the Virtual Community' in M Smith and P Kollock (eds), *Communities in Cyberspace,* Routledge, London, 1999, pp. 29-59.

[5] Gorean society, modelled on John Norman's *Chronicles of Gor* series, is a master/slave society with extraordinarily strict rules: see Artemis Fate, 'The Problems of Gor - Part 1: Philosophy, Society, Conditioning' in *The Second Life Herald,* 27 November 2006, viewed 10 June 2008, <http://www.secondlifeherald.com/slh/2006/11/the_problems_of.html>. For an example of a SL game involving vampire bloodlines see: 'The Thirst: Bloodlines', viewed 8 June 2008, <http://www.slbloodlines.com/index.php>.

[6] J Donath, *Signals, Truth, and Design,* MIT Press, 2008.

[7] On ritual behaviour in prison gangs see K A Cheeseman, 'Importing Aggression: An Examination and Application of Subculture Theories to Prison Violence' *The Southwest Journal of Criminal Justice,* vol. 1 (1), 2003, pp. 24-38.

[8] R Sennett, *The Corrosion of Character: the personal consequences of work in the new capitalism,* Norton, New York, 1998.

[9] Z Bauman, *Life in Fragments: Essays in Postmodern Morality,* Blackwell, Oxford, 1995; Z Bauman, *Postmodern Ethics,* Blackwell, Oxford, 1993.

[10] See also *MDY IndustriesLLC v Blizzard Entertainment*, Inc CV-06-2555-PHX-DGC, 14 July 2008.

[11] T Marcus 'Fostering Creativity in Virtual Worlds: Easing the Restrictiveness of Copyright for User-created Content', in 52 *New York Law School Law Review* 68, 69, 2008.

[12] See further New York Times, Link: <http://bits.blogs.nytimes.com/2007/10/10/free-the-avatars/>.

[13] P Hemp, 'Avatar Based Marketing', in *Harvard Business Review*, 48, June 2006.

[14] Second Life, Terms of Service, accessed 5 June 2008, Link: <http://secondlife.com/corporate/tos.php>.

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What does a Scanner See? Techno-Fascination and Unreliability in the Mind-Game Film

Laura Schuster

Abstract
In popular cinema, paranoia and conspiracy plots often go hand in hand with questions of technological innovation. For example, *A Scanner Darkly*[1] combines issues such as audiovisual surveillance, conspiracy, and mediated manipulation without disambiguating between paranoid delusion and conventional causality. Films such as *A Scanner Darkly* signal a current shift in narrative cinema, and prompt a kind of spectator-engagement much in line with posthumanist views on subjectivity. Rather than pertaining to traditional notions of illusionism and suspension of disbelief, these 'mind-game films'[2] employ unreliability and spectacle for the creation of unstable and synthetic storyworlds. While firmly embedded in the institution of narrative fiction cinema, this film presents novel and significant modes of signification and agency (even if limited or dystopian), both for those 'trapped' within its filmic story and for the spectators on its other end.

Key Words: Cinema, Mediation, Perception, Posthuman, Spectatorship, Surveillance.

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1. Introduction

What if you found yourself in a surveillance monitoring room, forced to inspect recordings of yourself for signs of bad behaviour, and saw yourself in a situation you didn't remember ever having been part of? Would you trust the surveillance camera, your memory, or your conscience? Luckily, the occurrence of this situation is not all that likely in reality. It would be almost a cliché, however, in nowadays' cinema, where a wide array of what-if questions prompts an even wider array of scenarios concerning the future of technocratic western society.

A Scanner Darkly fully exploits contemporary cinema's vast range of possible image manipulations through a story of concealed identities, surveillance 'scanner' recordings, and large-scale conspiracy. It engages with current preoccupations around the thinning lines between mediation and manipulation, man and machine, perception and recording. The film's protagonist, Robert Arctor (Keanu Reeves) is an undercover narcotics detective, but his undercover-ness works miraculous ways. In all police contact, he wears a so-called 'scramble suit', a full-body cover projecting a

continuous mixture of facial and bodily images to cover his own. His individual appearance, in reverse, serves as undercover identity. Arctor's assignment is to infiltrate a circle of drug users and trace the source of their supplies, a goal pursued through a vast collection of informants, recordings, and interventions. As the group of addicts grows increasingly paranoid (or conscient) of surveillance, Arctor sinks further into addiction and delusion, and his two identities come under extensive interference. The question arises which identity preceded the other; it is suggested that the police or government have lured him into addiction unknowingly, in order to plant not a mole but a near-unconscious robot into their scheme.

A mixture of recorded performances and animation, this film's extravagant appearance allows for the seamless incorporation of different 'kinds' of filmic sequences, most notably surveillance recordings and individuals' hallucinations.[3] Disambiguating between 'actual' and 'imagined', or 'past' and 'current', events becomes a task in itself, and this trouble creates a parallel between characters and spectators, both attempting to make sense of their perceptions. The non-realistic appearance of this film also renders the film's closing sequence rather stunning: it was all true, or at the very least the paranoia was not at all irrational. All along, the truth about their situation was much wilder than the protagonists' imaginations.

Like many recent films, *A Scanner Darkly* is as much concerned with the future of audiovisual media as with their effects on human perceptions. Technological manipulation and psychological delusions have long been a winning team in cinema, and the general nature of cinematic presentation is a probably cause for this. Itself a technology for manipulating time, reality, and observations, cinema has a well-stocked toolkit for playing with our minds and perceptions. In recent years, and quite likely under the influence of digitisation, it has perhaps begun to finally exploit this potential in full. This film is exemplary in how it thematizes contemporary cinema's exploration of old, new, and imagined audiovisual technologies. Surveillance and data-gathering are a common concern here, reminiscent of control-society science fiction films such as *Gattaca* (1997) and *Minority Report* (2002). Another clear preoccupation is the manipulability of perceptions and memories, also featured in the *Matrix* trilogy (1999, 2003) and *Eternal Sunshine of the Spotless Mind* (2003).

2. Unreliable Cinema

These films clearly indicate that technological control is not something external to mankind, but an extension of man's desire to survey, record, control, and where needed, manipulate. Along with this insight, typically flaunted and effaced at the same time, often comes a tight structure of self-reflexivity that foregrounds a film's own technology display; it presents advanced media technologies as a cause for fear while fetishising the

threat, allowing the spectator to admire those cinematic technologies that produced such spectacle. Technology display is often the most heavily advertised attraction of a feature film concerned with the possibly harmful consequences of technological innovations, which elicits a rather ambiguous position on the matter.

Though techno-dystopia has for long been a strong current in popular cinema fiction[4], it makes sense to interpret its recent proliferation as 'symptomatic' of various mutations within narrative cinema. There has been much discussion of cinema's confrontation with its 100-year anniversary and history, while postmodern pastiche and self-reflexivity practices may suggest that both 'artistic' and Hollywood storytelling conventions have long exhausted themselves and the Ouroboros circles of poststructuralist theories collide with the cinephilia of semiotic and aesthetic film analysis. These issues have contributed to a felt collapse of borders and demarcations, ranging from genre classifications to industrial organisations.

And then, of course, there is the horizon of the digital, which changes our definition of cinema even if it does not announce its end. While some theorists have long proclaimed the 'death' of cinema, and others predict a fully transformed cinema of the future, many remain sceptical on whether the digital really announces such a paradigmatic shift.[5] A common conclusion is that whereas the manipulability, impermanence, and flexibility of digital information allow and force cinema to go just about anywhere, the established principles of narrative cinema are unlikely to be fully abandoned. Spectatorship as a theoretical concept once more steps to the fore; as Matt Hanson observes:

> The digitization of cinema means elements can be fused and altered by the processor, blurring the lines previously dividing these established schools and their traditions. The 800lb gorilla of moving image, the feature film, is increasingly coming under attack. It needs to shape up, mutate, and evolve if it is to stay relevant in a universe of changing hardware, content, and, ultimately, the thing that matters most: viewer expectations.[6]

The impact of the digital is also crucial to Laura Mulvey's notion of a current 'technological curiosity'. Diversifying digital film practices and the current proliferation of cinema history through DVD culture, she argues, add to a situation where almost anything can be 'done' to pre-existing film images (while, as Hanson points out, almost anything can be created in new ones):

> In this dialogue between old and new, past and present the opposition between film and new technologies begins to

> break down and the new modes of spectatorship illuminate aspects of cinema that, like the still frame, have been hidden from view.[7]

Rather than address their position within the institution of cinema, however, I want to discuss how recent techno-fascinated films, with *A Scanner Darkly* as a representative, incorporate and produce changing notions of spectatorship and subjectivity. Thomas Elsaesser suggests that this type, which fits his notion of 'mind-game films', creates something like a novel 'viewing contract' with audiences:

> The new contract between spectator and film is no longer based solely on ocular verification, identification, voyeuristic perspectivism and 'spectatorship' as such, but on the particular rules that obtain for and, in a sense, are the conditions for spectatorship […] What makes the mind-game films noteworthy in this respect is the 'avant-garde' or 'pilot' or 'prototype' function they play within the 'institution cinema' at this juncture, where they, besides providing 'mind-games', 'brain-candy' and often enough, spectacular special effects, set out to train, elaborate, and yes: 'test' the textual forms, narrative tropes and story motifs that can serve such a re-negotiation of the rules of the game.[8]

Though hardly new inventions, the current popularity and ubiquity of self-reflexive technology comments in popular cinema affect our sense of perception, cognition, and ultimately, our sense of subjectivity, indeed creating a new kind of spectatorship. One of the new rules is 'take nothing for granted': a typical mind-game film will play on viewers' expectations and disprove assumptions by showing its own manipulative sleight of hand.

Unreliability is a returning factor in the mind-game film, quite more extensively so than it has been in detective, avant-garde, and art-house films over the past century. In these films, unreliable narration always carries an ontological component, a doubt about the trustworthiness of reality and of perceptions. Audiovisual technologies within the filmic world are often blamed for the loss of reliability: they facilitate the manipulation of characters' perceptions, memories, and/or environments, and sometimes literally pull the ground from under one's feet.

Surveillance recordings in *A Scanner Darkly* colour the filmic presentation, but also interfere with characters' perceptions of their own identities, and with the world around them. The trouble, however, neither ends nor starts here: regardless of the scanners, protagonists' own perceptions

and conclusions are hopelessly compromised by drug-induced paranoia and cognitive deterioration. There is no stable or natural ground below the confusions and manipulations. Conspiracy, paranoia, surveillance, and delusion interact in a causal feedback loop, where a narcotics agent is manipulated into a brain-damaging addiction and forced to spy on himself, finding his own perceptions muddled by recordings. Once fully alienated from any self-image or reliable thought, he is planted in a rehabilitation clinic in the hopes that he, unaware, will supply proof of the suspicion that these clinics themselves manufacture the drugs they proclaim to fight.

3. Machine Vision

By emphasising issues of perception and memory, mind-game films often hint at the position of the spectator vis-à-vis the film. When considering the way we understand narrative cinema, and the confusing narrative presentations of the mind-game film in particular, it is only a small step from spectators' 'illusions' to protagonists' delusions, and this is one example of how mind-game films tie their audience into the game. In their insistence upon the unreliability of information and the fragmented nature of consciousness, these films offer a sense of subjectivity that is characterised by synthetic-ness in both senses of the word: it is as fabricated as it is combinatory.

A peculiar sequence in *A Scanner Darkly* is instructive here. After first dismissing as a dream-like hallucination his disturbing experience of waking up next to a prostitute and for a moment seeing her change into Donna, the girl he actually desires, Arctor is shocked to find his hallucination validated a few days later. When reviewing surveillance footage of himself as part of his incognito narcotics investigation, it turns out that the camera has registered the exact same transformation: it shows Arctor waking up at night and staring in shock as his anonymous bed-mate changes into the image of Donna, and back. This constitutes a doubling of artificiality-effects. What we spectators see is pure mediation, to be attributed with as much realism as we like, but within the filmic diegesis there exists a concrete battle over the ontology of the filmic image, the tensions between objective registration and the mental projections of the observer. This battle, moreover, is not an auteurist, intellectual observation but exerts a concrete effect upon the lives of the film's characters.

'When narrative functionalities change', N. Katherine Hayles remarks on cyborg literature, 'a new kind of reader is produced by the text.'[9] This is exactly what happens with the mind-game film: it dramatically transgresses the traditional positioning of the spectator by Hollywood mainstream pre-1990s cinema. Both more open and more closed to the spectator, offering views from 'impossible', multiple, or contradictory perspectives, deciding not to distinguish between objective and subjective

views or representations, jumping between characters and playing constantly with factors of restricted and omniscient narration, its storytelling and style create a high degree of narrative complexity.[10] Some typical effects and stylistic strategies have quickly established themselves as genre markers: examples are the now-famous *bullet time* and point-of-view shots from the 'perspective' of non-organic currents or information flows. Through the constant ambiguations between actual, imagined, and diegetically recorded sequences, *A Scanner Darkly* corresponds exactly to what Elsaesser, in a discussion of the authenticity and archive function of recordings, refers to as: new ones):

> a contest […] between two kinds of recording-system (the human mind and psyche on the one hand, the camera and sensor on the other), whose data in each case are treated […] as (raw) material or information, rather than as documents or embodied action.[11]

Whether the filmic enunciation motivates its information as psychic or actual, both remain the 'raw data' of the film itself and function as its real components. To my mind, such self-reflexive layering of recordings can achieve more than a mere 'postmodern' sense of hyperreality or techno-fetish. It suggests a redefinition of human subjectivity, knowledge, and engagement with the technologically mediated world presented by and within a film.

These novel perspectives and effects often point to the interaction and (in)compatibility of mechanical and human perceptions, a continuous preoccupation in cinema from Vertov to Godard. Now, however, it is all over the mainstream multiplex cinemas and our home entertainment systems. From a film-historical, but also from a much wider perspective, this is no coincidence: in western culture today, concrete manifestations of this matter abound. We find ourselves interacting with - and depending on - machine observations most every day, in ways not altogether dissimilar from the dystopian situations in A Scanner Darkly or Minority Report. Manifestations and examples range from long-distance communication to artificial intelligence, videogames and training simulations to information warfare, Photoshop to DNA analysis.

There are a number of different ways to argue that the mind-game film is symptomatic of a relatively new conception of subjectivity - one that has emerged over the past 10 years and under the influences of technological restructurations and scientific preoccupations. This notion is usually assembled under the header of 'the posthuman', although it in fact has little to do with not-being-human-anymore. Posthumanist issues such as artificial intelligence and consciousness lead to a conception of the human individual

that does not pose a break from humanity, but rather a move away from a historically-developed and culturally distinct sense of humanism which involves individuality, uniqueness, truth, objectivity, embodiment, freedom, will, and agency. Very much in line with the posthuman, Garrett Stewart proposes the term 'postsubjective virtuality' for what happens in films akin to those I have mentioned, though for the underdetermination of images, perspectives, and validity that I take as determinants in my corpus, I prefer the term 'transsubjective'.[12] This choice is partly in order to avoid confusion with the Lacanian and Lyotardan understanding of intersubjectivity as a social phenomenon of communication and meaning-production,[13] and partly to emphasise the transferable, borderless, and unstable nature of subjectivity amidst the technological and psychological distortions of mind-game films.

4. Obscure Perceptions

Identity is the key arena for all these distortions to be played out: like many mind-game films, *A Scanner Darkly* is riddled with *doppelgänger* motifs, counter-identities, amnesia, and split personalities. Without entering the realm of cyborgs, the questioning, fragmentation, and splitting of identities in *A Scanner Darkly* establishes a similar discussion of human identity, consciousness, and subjectivity. Arctor finds his identity muddled not only by the surveillance of himself he is forced to process, but also by the dwindling of his mental faculties due to the drugs he has himself become addicted to during his undercover narcotics investigation. All these internal and external influences contaminate any clear-cut, coherent sense of self; Arctor perfectly illustrates the posthuman notion, here phrased by Slavoj Žižek, that:

> At the level of material reality (inclusive of the psychological reality of 'inner experience') there is in effect no Self: the Self is not the 'inner kernel' of an organism, but a surface-effect. A 'true' human Self functions, in a sense, like a computer screen: what is 'behind' it is nothing but a network of 'selfless' neuronal machinery.[14]

In a fitting scene, Arctor delivers a work speech in his scramble suit, but suffers extreme discomfort halfway. His perceptions of the audience are truly caught in the prism of filmic representation: before the blur of his scramble suit, we see the markings 'Live' and 'HQ' within what is supposedly Arctor's vision. Arctor's subjective perceptions appear filtered by the panoptical reign of his employer; our perceptions *of* the film are filtered by its logic of surveillance and mediation.

In this sense, the inhabitants of A *Scanner Darkly*'s world are subject to pre-selected and fragmented information as much as its spectators are - body, mind, and soul, it seems. Arctor's quasi-philosophical soliloquy (another trademark feature of mind-game films), taken almost verbatim from the film's literary source, Philip K. Dick's 1977 novel of the same name, goes as follows:

> Whatever it is that's watching, it's not human, unlike little dark eyed Donna. It doesn't ever blink. What does a scanner see? Into the head? Down into the heart? Does it see into me, into us? Clearly or darkly? I hope it sees clearly, because I can't any longer see into myself. I see only murk. I hope for everyone's sake the scanners do better. Because if the scanner sees only darkly, the way I do, then I'm cursed and cursed again. I'll only wind up dead this way, knowing very little, and getting that little fragment wrong too.

Such ontological doubt, caused by confrontation with alternative, nonhuman perceptive and interpretive systems, is a key structure of techno- and futurophobia. It corresponds nicely with what Hayles identifies as a common connection between the assumptions undergirding the liberal humanist subject and the ethical position that humans, not machines, must be in control. Such an argument assumes a vision of the human in which conscious agency is the essence of human identity. Sacrifice this, and we humans are hopelessly compromised, contaminated with mechanic alienness in the very heart of our humanity.[15]

But we need not necessarily ascribe to *A Scanner Darkly*'s pessimist foreboding of a future technocracy with our bodies and mind lost in mediation. Arctor expresses hope that exactly the non-humanness of scanner vision will compensate for the 'murk' of his own, for his incapability of reconstructing himself as a subject. The manipulations at play in this film are *of* humans, *by* humans, and often by individuals upon themselves.

Furthermore, whereas this film's characters may be trapped in the doomsday picture of a humanity without self or agency, I suggest that the way we spectators can understand, enjoy, and engage with such disorienting narrative structures and presentations is in itself good news. Over the course of a century, film spectatorship has come a long way. *A Scanner Darkly* is arguably not an outstanding intellectual film, and did not do particularly well in sales. It shows, however, that narrative cinema does not necessarily rely upon illusionism, photographic indexicality, or on psychological audience-to-protagonist identification. In the end it is the filmic text that we must believe in, not the (in)accurate perceptions of an 'informant'. The blinking 'HQ'

indicators, along with many other markers of machine vision and sound, disembody but also render coherent its mode of communication. We only have its enunciation as a whole, comprised of fragmented sequences of heterogeneous origins - contamined by mediation, perhaps, but also rendered presentable by it.

Confusion in itself can be a source of enjoyment; in fact, the puzzle aspect of mind-game films is their most appreciated and discussed feature. This I take as an indication that, indeed, these films serve as our pilots into 'the posthuman', if we are not already there. Mind-game films show that the subject is willing to give up a bit of stable ground and surrender to the unreliable or the hypothetical - as far as cinema is concerned, at least.

Notes

[1] R Linklater, (dir), A Scanner Darkly, Motion Picture, Warner Brothers, Warner Independent Pictures, 100 min., 2006.

[2] Coined by Thomas Elsaesser.

[3] Through the use of rotoscoping, camera recordings were re-rendered as animation; this facilitates the incorporation of surrealistic objects, technologies, and sequences. As such, Linklater's film fully affirms the 'return' to animation and imaging explorations that, according to a number of media theorists including Sean Cubitt and Lev Manovich, is a side-effect of digitisation in filmic practice.

[4] *2001: A Space Odyssey* (1968) and *Blade Runner* (1982) are classic examples.

[5] Within the arena of media-technology debate, theorists predicting a fully transformed future cinema include Mark B.N. Hansen, Friedrich Kittler, David Tafler, Yvonne Spielmann, and Peter Wollen. Perspectives emphasising the continuation of established cinematic principles are forwarded by Sean Cubitt, Anne Friedberg, Daniel Frampton, Matt Hanson, Lev Manovich, and Marie-Laure Ryan, to name but a few. For more on this matter, see Thomas Elsaesser and Kay Hoffmann (eds), *Cinema Futures: Cain, Abel or Cable? The Screen Arts in the Digital Age*, Amsterdam, Amsterdam UP, 1998, or Shilo T. Mcclean, *Digital Storytelling: The Narrative Power of Visual Effects in Film*, Cambridge, MIT Press, 2007.

[6] M Hanson, *The End of Celluloid: Film Futures in the Digital Age*, Rotovision SA, Hove (UK), 2004, p. 9.

[7] L Mulvey, *Death 24x a Second: Stillness and the Moving Image*, Reaktion, London, 2006, p. 27.

[8] T Elsaesser, 'The Mind-Game Film', in *Puzzle Films: Complex Storytelling in Contemporary Cinema*, W Buckland (ed), Blackwell, Oxford, forthcoming.

[9] N K Hayles, *How We Became Posthuman: Virtual Bodies in Cybernetics, Literature, and Informatics*, University of Chicago Press, Chicago/London, 1999, p. 47.
[10] The narrative complexity of contemporary popular fiction films has been stressed by many narratologically-inclined film theorists, including David Bordwell, Edward Branigan, Warren Buckland, and Erven Lavik. I am convinced, however, that its identification is not a sufficient end in itself, but rather a means of entry into the complexity of the issues raised through these films' difficult storytelling strategies.
[11] T Elsaesser, 'The New Film History as Media Archaeology', in *Cinemas*, vol. 14, nr. 2-3, Spring 2005, p. 108.
[12] G Stewart, *Framed Time: Toward a Postfilmic Cinema*, University of Chicago Press, Chicago/London, 2007, p. 211: 'the technofantastic plots of recent Hollywood films, along with their low-tech supernatural variants, indulge in what we might call a postsubjective virtuality.' Though Stewart's interest lies with the temporal distortions brought on by technological and supernatural presences in contemporary cinema, his conclusions apply perfectly to this article's concern with mediation and subjectivity.
[13] For more on this conception of the intersubjective, see for instance Haidar Eid, 'Lyotard, Habermas, and the Virtue of the Universal', in *Kritikos* Online Journal, Vol. 4, May 2007, Intertheory Press, last updated May 2007, viewed May 28th, 2008, <http://intertheory.org/eid.htm>.
[14] S Žižek, *The Parallax View*, MIT Press, Cambridge (US), 2006, p. 206.
[15] Hayles, p. 288.

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Part VIII

Education-Science & Game Design

Creating the Digital Sandbox: Implications of Spatial Construction in Cyberspace

Alex DiGiacinto

Abstract
Recognised as one of the greatest inventions of the 20th century, the Internet has received overwhelming attention as a conduit for sales, deviance and experimentation. This paper examines one of the oldest forms of communication in Cyberspace, the Bulletin Board, as a community and space shaped by the same philosophical theories that shape the spaces that we relate to in 'the real'. In order to add social weight and urgency to cyberspace, the paper uses the analogy of ant colonies, a near perfect example of ground-up organization. The author postulates that Internet aggregates in a similar way to ants, through the study of necessity and pattern, suggesting gold circuitry, soldered metal and spinning magnets represent only a small portion of what makes the Internet function.

Key Words: Cyberspace, Bulletin Board, Message Board, Virtual Community, Ground Up Organization.

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The idea of 'the web' without 'net neutrality scares me. It scares me because I feel as though the idea of a completely filtered or 'channelled' net is a symptom of a mindset surrounding the Internet that it is less then what it actually is. It's just a game, a shopping mall, an adult film theatre. It's a grotesque manifestation of a Western desire to consume, or a place where people make each other angry for the sake of amusement. That it is just these things and that because it is just these things, boxing it and controlling it and wrestling it the ground to make it easier to consume, understand and navigate is alright.

But the web can't always be added and subtracted like that. It doesn't always add up because cyberspace is made up of more then just simply designer shoe outlets and movie theatres. When focused on those things it's easier to lose sight of what makes the web a truly remarkable invention but by looking at its structure, one can be reminded.

One amazing and often under-appreciated aspect of cyberspace, or the great unplanned web called the Internet, is that it is a near perfect example of ground-up organization without a pacemaker, a theory with roots in behavioural science, that can been seen from self aggregating slime mould to ant colonies. There was no grand design for what users see today when

they visit cyberspace, no creator. There was an idea, or rather, a series of ideas that led to the generation of new thoughts and projects, like a worker ant's pheromone trail directing its peers by simply doing its own job, or a single cell's cyclic AMP acting as makeshift instructions for others [1]. It could be said that the Internet aggregated in a similar way, through the study of necessity and pattern. It was designed entirely by people meeting needs. 'Perhaps great portions of the Net are composed of these cultures of compatible, thought not always convivial, consumption.'[2] A great deal of cyberspace is people, not the machine, a bizarre thought for something that has spawned so much 'self realizing evil machine' literature. It acts as a 'vision machine'[3] that connects people in a myriad of different ways.

It would seem as though cyberspace is a great invention of mankind, and while it is by no stretch of the imagination a 'natural structure,' it came to be in a very organic way. For certain, the 'parts that facilitate the practice' [modems, routers, hard disk] of the Internet are inorganic and designed with an express purpose, but what of the structure of the Internet itself? Consider ant colonies. The structure of the ants living space, the creation and maintaining of cemeteries, garbage dumps, the protection of the queen, the defence of the colony by the collective, all of these phenomenon come from the bottom up. A need is assessed, expressed through the release of pheromones and then met by individual workers[4]. In Steve Johnson's book 'Emergence,' he draws parallels between this behaviour and the way humans structure many of their own 'artificial' creations like cities. The fact is ant colonies are a great metaphor for the Internet as well. People [or groups of people] observe what is out there, and then create content based on what they see or do not see. If the Internet is in actuality an 'organic' structure, of what stuff is it made? The answer, of course, is human beings. The technology is gold circuitry, soldered metal and spinning magnets but a great portion of the net is *organic.* It may be easier to think of cyberspace, the Internet and 'virtual communities' in this way, but allocating a physical location and a mode of passage to a tiny circuit board seems indefinitely constraining when talking about what many argue is the most important invention of this century. 'But such a mapping of hardware, while absolutely crucial, misses so much of what is going on in cyberspace.'[5]

> Where is cyberspace? We can answer this in a number of ways. We might say that cyberspace exists in the network of computers, modems, communication links, nodes and pathways that connect users to something (or some things) like the World Wide Web, the Internet, the information superhighway, and so on. We could make Cyber-Space, in short, as the sum of the hardware that facilitates its practice.[6]

This inability to separate the Internet from the confusing technology that 'makes it work' [a concept that is foreign at worst and difficult to embody at best] is part of the reason people experience a disconnect from its importance and potential. The idea that the Internet, and the cyberspaces which it contains are somehow 'inhuman' or 'alien' because they are 'virtual' and not 'physical' or somehow 'robotic,' creates an effect that essentially makes cyberspaces the *other*, in relation to 'real spaces.'

> Space is in essence that for which room has been made, that which is let into its bounds. That for which room is made is always granted and hence is joined, that is, gathered, by virtue of a location that is by such a thing as the bridge. Accordingly, spaces receive their beings from locations and not from 'space.'[7]

Spaces are those for which room is made by the act of thinking of them. Areas where humans *dwell* in, which become locations, and then, after the establishment of boundaries on this location [this is the bridge, and this is not] man breaks locations into spaces. To use Heidegger's example of the bridge, he states:

> Before the bridge stands, there are of course many spots along the stream that can be occupied by something. One of them proves to be a location, and does so because of the bridge. Thus the bridge does not first come into a location to stand in it; rather a location comes into existence only by virtue of the bridge.[8]

It is the thing [in this example, the bridge] that allows for location and ultimately space. The thing is what allows for the reflection of existence [what Heidegger calls the 'fourfold'] that leads to the creation of spaces, in the 'real' world. The bridge facilitates the creation of a space by people's relationship to the location. What it may be for one person in terms of space, say a 'homeless' person who sees it as a 'living space' would be different for another person who simply uses it to cross a stream.

Cyberspaces are, in terms of this definition, similar to real spaces, in that they are in fact creations of those people who occupy or dwell within them. The creation of cyberspaces can be seen to be in parallel with the creation of real spaces. Heidegger's bridge example is experienced in the real world. There is a stream, and on this stream man builds a thing, a bridge. What is a stream? A need, one would suppose. A stream, in relation to man, is a need to be able to cross it. So, in cyberspace there is a need, identified by people, to cross a virtual gap, to connect with others with similar interests.

They create a thing that facilitates this crossing [in the context of this paper, a web based discussion board]. Once this thing comes into existence, it becomes a location, and when people start relating to this location, it becomes a space.

'Dwelling is the manner in which mortals are on earth,'.[9] An important statement, he's saying that this is what people do, they exist on the planet earth, and reduce that to a scale they can relate to by the building of things that allow the creation of place. 'We do not dwell because we have built, but we build and have built because we dwell, that is, because we are dwellers.'[10] If dwelling is intrinsic to the human experience [or more so, it simply *is* the human experience], then *where* we dwell and how that space is built become very important factors.

Locations and places are constructed with purpose. The bridge was built to cross. Whether or not these places are 'virtual' or not does not change this fact. Sometimes, though, critically analyzing the structure of a place can reveal that it's not always contributing toward the meeting of its purpose as a space. For example, public schools in the U.S are supposed to be institutions of education, but a walk through of many of these schools, who's supposed goal is to become a 'learning' space, would reveal a myriad of distractions for the students. Soda machines on every floor supplying beverages loaded with sugar, uncomfortable chairs and tiny classrooms. How do these things affect the mindsets of students and teachers who are creating the space through relation? Is that making it easier or more difficult to treat it as a learning space?

Virtual communities as they exist on the Internet have no real physical manifestation beyond the hardware, which stores the code that enables these things to exist. However, in terms of the above definition, they are certainly cyberspaces. They have the ability to be occupied by any number of things. First, the user, a person who has chosen to participate in the community and engage in a discussion about a range of topics, and then whatever the user chooses to 'post,' whether that be text, photographs, videos or sounds. Of course, the question remains: who are these people and what exact part of them is occupying this cyberspace. It cannot be their actual, physical bodies. No, those bodies never move when engaging in the relationship with the website. So it must be something else, an extension of one's supposed personality or identity. It cannot be the physical presence or 'authentic' identity [not necessarily physical but often verified that way], as that can only exist in the physical world, and so it must be a 'virtual identity.' There is much argument in literature about cyberspace, both academic and fictional, that the crux of the difference between the 'cyber-world' and the 'real world' is this notion of 'virtual' or constructed identity, the freedom for the user to be whomever he or she wants, to look [or say they look] however they want, and of course have license to act however they want. However, as

Kevin Robin's states in his piece, 'Cyberspace and the World we live in,' 'only the technology is new: in the games and encounters in cyberspace it seems, there is little that is new or exciting. Rheingold believes that they have their roots 'deep in that part of human nature that delights in storytelling and playing pretend.'[11] The idea of identity as performance or constructed identity is not new or by any means exclusive to cyberspace. So, while yes, among message boards and forums, the fact that identity is a malleable factor for the users certainly can contribute to patterns of behaviour, focusing on that notion would seem more of an excuse, suggesting that regardless of the work put in to shape a space, the outcome would be the same, given that human beings cannot act anonymously and responsibly at the same time.

The first community being examined is Tribalwar.com. Tribalwar.com is, as rated by Big-Boards.com, the 102nd largest discussion forum on the planet, out of the top two thousand boards. This led to the creation of Tribalwar.com, described by Big-Boards.com as 'supposed to be about the Starsiege: Tribes series of games, it hasn't been for a while, but has become a community about life, news, games, drama, girls, and so much more. It is considered by its members like a little hostile family.'[12] The community has roughly 21,000 individual members and has hosted almost a million separate discussions.

The second virtual community being looked at is SomethingAwful.com, affectionately called SA by its users, who themselves identify as 'goons.' SA is the 12th largest forum on the planet, boasting 106,000 individual active users and has facilitated well over 6 million individual discussions since it's creation in 1999.[13]

The first set of rules that any cyberspace must have are dictated by the programmer[s] who creates the website and writes the code that allows users to make posts, reflect, and discuss. These rules generally do not take in account content, and such is the way both of the cyberspaces looked at in this piece were created. There is no 'bot' parsing the site for curse words or hate speech. The code states what users can and cannot do in regards to the functionality of the space. They can write, post images, and link other content user hyper links. They cannot user voice chat, video chat, or instant messaging or chat rooms. A user would need to enter a different cyberspace for those things, as these websites simply do not facilitate those functions. The ultimate law in cyberspaces is the code, and the code doesn't care how you behave. Much like the laws of physics for example.

Beyond the cyberspace's 'natural law,' there is a written law crafted by the creators. When a user enters both of the websites in question, before being allowed to officially create an account and start posting, there is a list of rules that they must read, or at least confirm they've read by checking a box. The logical reasoning would be to read the rules if you actually want to stay on the board for a long period of time. Failure to follow the rules and the

administrator of the board [or any number of deputies appointed by them] will result in either a temporary or permanent ban from the website. Tribalwar.com's formal rules start with an interesting disclaimer.

> Interpretation and enforcement of the rules is up to the moderators and administrators of the site. This document is only a general guideline and not a definitive document of the actions taken by those left in charge of making sure the forum is running smoothly and within the boundaries of some semblance of taste ... not to mention the law. Don't try and rules lawyer an administrator based on what you think the rules should be or you will wind up with a pissed off administrator unsympathetic to your cause. Reasonable explanations and apologies will of course be considered.[14]

Essentially the people who run this cyberspace are taking the right to interpret the rules they list [which are in themselves relatively relaxed] with full flexibility. As the description from Big-boards.com says, Tribalwar.com identifies as a sort of 'hostile little family' and as such in families, exceptions are made 'given the circumstances.' In reality, however, that disclaimer has led to a number of long drawn out fights between the users and the administrators about unfair treatment, special treatment, and refusal to uphold rules. SomethingAwful.com also has a disclaimer, though theirs is of an entirely different nature.

> We here on the Something Awful Forums are very elitist and strict assholes. We pride ourselves on running one of the most entertaining and troll-free forums on the Internet. This is accomplished by charging a $10 fee to filter out folks not serious about adhering to the rules, and banning those who manage to slip through and break them. We are very serious about keeping our forums clean and troll-free, so please consider your account an investment and treat it accordingly. Read the rules, use common sense, and help keep the SA Forums the best message board on the Internet.[15]

The rules then go on to give users guidelines and warnings about how and when to post, and reply to threads. They suggest 'lurking' before posting, which essentially means just reading the site for a number of weeks and really getting a handle on the way things work. Almost all of the rules on SomethingAwful.com's site have to do with facilitating conversation, where as Tribalwar.com's site rules are really more based around appeasing

administrators and keeping the website out of legal trouble. SomethingAwful warns against 'low content posts...worthless posts...' and has a definite stance on harassment. They say 'flaming' which is basically arguing with, cursing at, or annoying another member of the community does not, in fact, break the rules unless it gets in the way of other peoples conversation. You cannot be banned for sending someone private messages expressing your hatred for them, but you can be banned for having that conversation right in the middle of an active discussion. One interesting point is that their 'hate speech' rule is completely about the interpretation of the message.

> I Hate Speech: Offensive terms such as 'f-word' or 'n-word' may or may not be bannable based on context of the sentence. If they were meant as humour with absolutely no offensive slurs meant, the user may not be banned or probated. This rule is completely, 100% subjective and is based on the mod reading the post at the time. Use at your own peril.[16]

Clearly these rules, part of the 'foundation' that these communities were based on [comparing them to the bill of rights seems wrong] have shaped the way it has been constructed, by both users and creators alike. The rules of SomethingAwful are meant to drive home a feeling that if what you've got to say is well thought out and interesting, you're allowed to say it. If it isn't, but it's still funny [according to those who run the site], you are still allowed to say it. On Tribalwar.com, if it won't get the website sued, you're allowed to say it, and that usually means most of Tribalwar.com's content is infighting between members.

Beyond the colour scheme and 'emoticons' allowed [smiley faces depicting different actions] the look of the cyberspace becomes important as soon as it begins to affect the way the content is delivered to the user. In almost all Internet message boards, the organization of the posts is the same [Tribalwar.com and SomethingAwful.com are no exception.] Posts are organized by activity, the most active posts are brought to the top, and then the less active are stacked below. Activity is decided by how many people are actively discussing things within that post at that given time. When people stop posting, the thread will drop down the main page and eventually be sorted into the running archive [thread death]. So, on both cyberspace examples, the posts that will garner the greatest response are 'rewarded' by being sent to the top. This generates a feeling in the user base that starting conversations is better then simply posting information. On Tribalwar.com, the most effective way to get a popular thread is to call someone out in the title and then attack him or her personally in the content. A quick look into the 'TWHOF' [Tribalwar Hall of Fame] can confirm this. Two of the most

popular threads of all time are named 'Hey Vir:Go Fuck Yourself,' and 'Dear Lockntross, Juggernaut, Critter, Onnotangu,' and both are basically personal attacks on the people in the title. SomethingAwful is less based around personal attacks and more about simply being provocative. Threads like 'How to build a remote control plane,' will slowly fall down the listing, while threads titled 'Who else on this message board is a high paid call girl' will remain at the top for weeks and eventually be archived in the 'SAclopedia' and become Internet legend.

Another visualization factor that drives users to be provocative is the rating system that SomethingAwful implemented shortly after they started charging for membership. When a user clicks on the thread, they have the option to give it a rating, from one to five, signified by gold bars. Thread rating is shown next to the post on the main listing. A higher rating means people will be more apt to click, and producing a 'gold' thread will instantly make a name for yourself on the board. The reflexivity of Tribalwar.com [meaning a majority of the 'content' on that site is mainly just fighting between members who have known each other for years] keeps them from implementing such a feature. Without any real content, ratings would quickly be a just another way to 'troll' people, giving people you didn't like a bad rating no matter what they posted.

SomethingAwful's rating system is great for a user that is looking for that day's most interesting threads as dictated by their peers, but it certainly has implications on how the users who write [or are unable to write] these 'golden posts' relate to the space. Rating systems, post counts [the recording and rewarding of posting a certain amount, or at a certain frequency] and the movement of posts based on activity all facilitate the 'gaming' of the virtual community. John Suler describes this as one of his factors of online disinhibition. Rewarding 'productivity' creates a sense of 'game-playing' within the community. Users can feel like they are creating characters and with that, their own play-world.

> People may feel that the imaginary characters they 'created' exist in a different space, that one's online persona along with the online others live in an make-believe dimension, a dream world, separate and apart from the demands and responsibilities of the real world. They split or 'dissociate' online fiction from off line fact.[17]

User's absorb these structural queues and then in turn create the spaces. Things like active threads moving to the top based on posting and not readership, thread rating, post counts, advertisements all over the page, 'hall of fames,' create a user base more likely to create a 'clubhouse' space then a 'discussion' space. New users are 'jumped in' or turned off completely, and

the space never develops a new relationship because those who would attempt to do that simply don't have the means. A feedback loop is created, with the structural choices that were originally intended to drive traffic to the site feeding the behaviour of the users there. Their behaviour, in turn, only reaffirms that spatial relationship.

The Internet can often seem like a toy or a sandbox. What happens there somehow matters less then what happens in reality? This will change with time. The facade that most of what people deal with within cyberspace is actually a machine or inorganic is slowly being lifted. The more time people spend within these cyberspaces, the more evident it will become that it is not an 'alternate' or virtual reality. It is a *part* of the pre-existing reality. I think it would be foolish to attribute what we see of human behaviour on the Internet solely to 'human nature in an anonymous environment' or an innate desire to play the deviant with a safety net. It seems that it would be more prudent, instead of making excuses, to start identifying more with that behaviour as a real part of ourselves and trying to figure out what about our cyberspaces allows for all of that behaviour to proceed.

Notes

[1] S Johnson, *Emergence: the Connected Lives of Ants, Brains, Cities, and Software*, Scribner, New York, 2001, p. 14.
[2] S P Wilbur, 'An Archaeology of Cyberspaces: Virtuality, Community, Identity', in *The Cybercultures Reader*, D Bell & B M Kennedy (eds), Routledge, New York, 2000, p. 53.
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Social Sciences as Multimedia Games

Peter Ludes

Abstract
A few classical social scientists realized that the format of articles and books does not always provide us with the best medium of elaborating and conveying important insights. Therefore they experimented with a theater play in the sociology of knowledge (Karl Mannheim), a utopian tale on the great debate of the intellectuals (Norbert Elias in an interview with Peter Ludes), insightful drawings (Kurt H. Wolff, a student of both Mannheim and Elias) or a Sylvester Symposium on the principle of love (Agnes Heller).[1] Arguing that some sociologists (for certain types of problems) felt more elective affinities with artists than with scientists or political activists, certain characteristics of this approach can be detected: These authors have transcended the simplifying functional differentiations of truth, justice, and taste - or science, morality, and art in order to create a new form of understanding. Individual actors are not the most important or decisive units of analysis, but figurations of groups of people, which do not always consciously choose their actions. Not only are the concepts of individual actors and of short-term orientations and actions at stake, but the very notion of action itself, to be replaced by trans-generational interdependencies. The latter refer to impersonal forces, hardly open to deliberations or discourses, but which are constituted by so far hidden and may be unintelligible constraints. A few of these traits will be sketched here, to enlarge the scope of social scientific modes of theory-formation beyond traditional uni-linear texts to networked social-science-as-arts games.

Key Words: Social Sciences, Multimedia Games, Discourse Theory, Civilizing Processes, Functional Realms, Social Science Arts, Shalom, Norbert Elias, Juergen Habermas.

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1. Social Sciences Across Functional Realms

The century-long and still dominating scientific argumentation in terms of oral speeches and, mainly, written texts (rather than multi-sensuously, especially visually) has been a historically particular mode of argumentation. The connections between graphics, written texts and moving images, which predominate already in multimedia networks, will be used ever more in a complementary way to traditional textual scientific argumentations-not least because of the new technological possibilities in the

direction of an increasing importance of 'visual argumentation'. Up to now, media communications typically exclude smelling, tasting and touching. Nintendo Wii, however, can be considered as a new phase of interactive mass media, which allow for new identification models, e.g., figures like Mario or self-created Miis at the Olympic Games in Beijing 2008, in simulations of the real 'bird's nest' or other Olympic sites.

Experiences of and with all senses demand personal interactions from face to face, most intensely in friendships and especially in love's multi-sensual expressions. But it must not be underestimated that at first glance mono-sensually appealing artworks like music productions can indirectly capture all senses or that the excitation of only one sense can silence or resonate all the others. Multimedia games for example have already left behind film, TV and video in their technical development and economical importance. They are still mainly played by children and teenagers and thereby shape notably the pre-pictures, personality structures, fears and wishes, norms and values that will prevail in the next decades. In Western societies and Japan, the generation between 30 and 50 years of age, which fills many leading positions in economy, politics, the military or culture usually has had formative experiences with multimedia games. Some of them still play once in a while and transfer aesthetic, moral, or strategic principles from games to other realms of life and death.

Gadgets and fastness in this market usually push aside complex emotions, subtle and completely sensual modes of behavior and the imaginative testing of new leeway. A new cultural procurement would be for example that composers, authors and festival directors, who were so far creatively active for the opera, theater or festival, should prepare performances that are tried simultaneously on classical stages and in worldwide multimedia networks. The social science works of art by Karl Mannheim, Norbert Elias, and Agnes Heller could be tried out as contributions to corresponding festivals. There has already emerged a network culture of digital audio-visual symbols. Multimedia networks reproduce, combine, and diversify old media images of events, people, or landscapes, which the majority of users have never seen immediately and never will. Thus not only fictional representations become day-to-day consumable with their origins still rooted in real occurrences--but also forms and colors, which were created computer-based and have so far not been encountered in any life situation. With the increase of these historically new modes of experiences and of expressions, this re-figuring of space, time, intimacy, interaction, self and others, important changes in human cognition and, albeit with a considerable delay, in respective relevance schemata, assessments and modes of behavior emerge. At the same time these modes are mixed or brought into alternation with sedimentations of old situations, landscapes and people, whereby mixed worldviews open up new chances for

insights, for which Elias' (1984, 1997) Utopia of the Great Debate of the Intellectuals already sets an example.

The radical changes in modes of cognition, behavioural models and perspectives in media communications demand a novel aesthetic mode of transferring fragments of immediate experiences. Inter-media games, for example, work understandably across functional realms, national and generational cultures and may contribute to overcome nationally spoken languages, but tie in with nonverbal communication and visual symbols. This potential achievement is based in common sense pre-linguistic and nonverbal socialization processes. The combination of older and newer media into film-TV-theater-video-computer-games, thus inter- and multimedia-games, in the next section therefore is not deployed as an end in itself. It is to enhance imaginations, for which multi-mediated networked self- and world perceptions become a part of the life-world. Representatives of various cultures, generations and professional groups thereby may build up a common background which connects, combines, and further develops networked, multi-mediated relationships with immediate and multisensual ones. This development shows beyond Habermas' discourse theory (cp. Ludes 2007) and connects elements of this old European tradition with Castells's theory of mass self-communication.

2. Social Science Arts: Project Shalom

In 1939, the Nazis were rumoured to be developing an atomic bomb. The United States initiated its own program under the Army Corps of Engineers in June 1942 in order to build an atomic weapon before Germany or Japan did. General Leslie R. Groves, Deputy Chief of Construction of the U.S. Army Corps of Engineers, was appointed to direct this top-secret project. For Norbert Elias' 90th birthday, in 1987, I wrote a counter-play, Project Shalom, on the development of historically new means of understanding, on a similarly large scale, which trespasses traditional boundaries of social scientific work. In the succession of generations of specialized occupations and identities social-scientific artists and artistic social-scientists will in the future develop/live/play insights, which were so far lost because of the established system borders.

Let us imagine: Project Shalom, *Excerpt of Act 1:* The Detached Prophet: Thank you. We are here to contribute our share, so that it goes on: the development of humankind. We discussed our time diagnosis over the last years. There is no clear solution. I suggest that we initiate a project to acquire new means of understanding instead of weapons of mass destruction or a trinity bomb. I guess I don't need to explain to you why this project should be called 'Shalom'?

The Human Wolf: Who are the collaborators in this project?

The Bright: That's the point.

The Human She-Wolf: Who knows the fear and can stand it, those who looked death in the eye and want to survive, who know about their own pain and feel with others.

The Detached Prophet: Who can get over his self-absorbedness and concentration on the immediate presence, those who know for the tensions in themselves and between humans and can live with them, who can find their contents in other people.

The Bright: Those belong to it. It won't be a talk and no conference. That which contributes to survival must be experienced in exemplary ways.

The Human She-Wolf: In confined space, in shortest time, what an effort, but also what a goal!

The Human Wolf: In search of commonalities despite all contradictions.

The Detached Prophet: Let us open hands, eyes, ears and noses until we can stand each other again, not a slave to someone but mature, looking oneself and others straight into the eye, others who want to continue living and living anew today and tomorrow.

The four get up. The Detached Prophet walks very slowly on the winding staircase towards the third level; the Bright walks with determination towards the first level where she then hastens up and down between the different work and political assembly points and in each case changes some objects (machines, tools, posters, multimedia equipments); the Wolf-pair stays on the second level and mostly looks into the audience; after a few minutes the Human She-Wolf sits back down and pours herself some tea.

The Bright: The national conflicts, religious and civil wars, class and gender struggles, the conflicts with external and our own nature, all this in the smallest possible space,

on two islands of this world, for some years, how should that go well?

The Human She-Wolf: Humans, that knew the hunger, anger, mourning, hate, lost close relatives, important parts of their selves, those who want to survive, animated with the wish that all they suffered from should not happen anymore.

The Human Wolf: Those who reached the bottom of their fear, that even fell through there and caught themselves in what connects us humans, those who did not loose the trust to get back out of this hole, this crack in the world and in us.

The Detached Prophet: Those who no longer first think of themselves, who fell without being pushed, those who know of the pains and happiness of their predecessors, they do not want to stem the tide of generations.

The Human Wolf: Korcula, island in the middle of the Dalmatian archipelago, Croatia, 47 kilometers long and 276 km^2, tourism and winegrowing, fishery and processing of fish.

The Human She-Wolf: Newfoundland, eastern province of Canada, 417000 km^2, timber industry, mining, no more Cod's land.

The Bright: In the South and the North, densely crowded and vastly scattered, thousands of scientists who experience the conflicts of their time first body, from contrasting classes, nations and religious groups.

Excerpt of Act 2: The four initiators of Project Shalom came to know many people, countries and situations since their emigration more than half a century ago. They themselves continued to be displaced people wherever they wanted to gain a foothold, past Gestapo and concentration camps just by days or minutes. In the will to survive and in the struggle for existence they became survival specialists. Now the boundaries are different. The four protagonists have met numerous of such newly displaced people. They brought them together from different countries and parts of the world; three of these displaced and survivalists in a complex world, full of computerized

attack potential which can destroy everything within minutes are on the brightly lit stage on the first level at the beginning of the second scene. […]

The three somebodies are each individually put into glistening light. They let their arms dangle and walk or stand in the direction of the audience. Through technical tricks each of the illuminated bodies becomes synchronically darker from the middle. Thus the impression arises that the three dissolve from their middle on, meaning from their genitals onwards. They open their mouths as if for a cry of help, but no sound is heard. The darkness, the nothing on their bodies spreads until with their forehead and their feet the last body parts disappear. In total darkness the sound of three falling bodies can be heard. In that moment the movie illumination turns on, the three somebodies are again in the bright, individual spot light. The process is reversed. As soon as the eyes are to be seen again, they look at their own bodies and the bodies of their fellow sufferers. Then they walk towards each other, look each other into the eyes. Once all three bodies are complete the light turns off. […]

Maria Maculata, resembling the Bright, climbs up the spiral staircase, being chased by five armed soldiers. On the second level they enter the secretarial pool of the Detached Prophet. The Detached has fallen asleep, forever. The soldiers follow, dazzled by a life that resisted violence for so long. Maria and the five soldiers face each other. In slow motion the raid starts. In this room the blows don't hit, they always stop shortly before Maria: kicks and jots, ripping.

In slow motion the occurrence happens until just before the five soldiers: pacing and rising, soft sounds.

Clenched fists bash forward - open hands receive them. Butts swish down - fragment when they hit the desk. Bayonets hit - into the books, which move. A grenade explodes - down the balcony.

Only the eyes will be illumed - Maria's full of sadness, the five full of hate. Only the mouth will be illumed - Maria's slightly opened, the tip of the tongue guessable; the five widely opened, the right corner of the mouth hanging down.

Maria: Another five years, maybe, and humanity will be extinguished. […] A task group of seven soldiers and five intellectuals sits at the wooden table on the balcony of the secretarial pool, which is again on the second level. They have some personal items from their homelands on the table in front of them. Mussorgsky's 'Pictures at an Exhibition' in the orchestration of Ravel sounds.

The twelve scatter across the first and second floor. Together with their homeland symbols they represent first each individually, then in groups and finally as a collective group the following developments. These will not be explained in more detail, as each time it must be left to the fantasy and expressiveness of the actors.

1. From the embryo to the dead body.
2. From joy of life to fear of death.
3. From dominance to self-control.
4. The prey becomes hunter.
5. The militaries become more self-controlled in their movements; the intellectuals more aggressive.

Afterwards all bodies are disintegrated through special illumination effects similarly as in the second scene. This time it is not a coherent dissolution, from the middle onwards that can be reversed. This time it is an irreversible process. For each of the actors who are running up and down, crawling or crouching different body parts are spotlight: eyes, hands, chest, genital, knees, and feet. The rest is dark. Suddenly it seems that the illuminated body parts of the twelve move away from their original bodies and toward each other. Where they were brightly illuminated, bleeding wounds remain. On the spiral staircase, on the way from the first to the second level, a new combination comes into being: a vast majority of body parts and behavioral patterns of the military, and in the minority intellectuals represented through their eyes. Bleeding body parts are pushed into each other until they fit; the blood dries; the new combination slowly seems to be natural, like a costume for carnival, its bumpiness appears more comical than threatening.

According to this expression the figure doesn't act very goal oriented. Slowly the first and second floor is illuminated. The remaining eleven persons are aggregated similarly, they move partially rather clumsy, uncoordinated, partially playful like on their journey of discovery into a new, hardly threatening world. The twelve, while shortly pausing in various distances and in different courses of motions: not very interested, they resemble each other like animals in a flock. The violence-experts lost their homeland symbols, mainly weapons. Likewise the intellectuals lost theirs: paintings and sculptures, musical instruments or USB sticks, books or manuscripts. The twelve roam about, come across these items, and cannot do anything with them.

More or less by chance they meet again within a few minutes at the table on the balcony of the secretarial pool, which has been set with a meat platter. They sit down; look at each other with hardly active, partially sad, partially hungry eyes. The body movements are only little controlled, within a few seconds all start to eat loudly. […]

To praise her, the all-embracing,
Beyond the knowledge of time
Him, the all-creating,
Who needed a home.
You in us, and us in you,

For we are still alive
In life's mercy
Still
How long, you child of men
Still innocent of time
And strength
On the margins of your self
You bow your childlike head
And you smile, and smile
Into this hole
To plead to hear, the all-embracing,
More urgently than ever
Him, the all-creating,
We need a home.
You in us, and us in you
For we are still alive
In life's mercy
Still
How long, you and you
Sensing the consequences
Of the powerlessness
Even on the margin
You bend backwards your youthful head
And you laugh, you laugh
About the abyss
Inside ourselves

3. Epilogue: Civilizing Media?

According to Norbert Elias's theory of long-term unplanned civilizing processes, neither individuals nor actions constitute major components of social processes, but figurations of interdependent people across generations. These networks of interdependencies are multi-dimensional: multi-sensual and multi-functional, only very partially known or intelligible to the actors. They are so numerous[2] that it is impossible for any individual actor to oversee millions of connections already in small-scale networks. Even less probable is that individuals can calculate advantages and disadvantages, costs and benefits of individual actions within such networks or even parts of figurations beyond their own lifetimes. Elias mainly argued that unplanned long-term social processes predominate any kind of short-term individual constraints and options as well as affective ties and deep-seated levels of anxieties. The latter can hardly be put into words and therefore mass and network mediated visuals gain importance.

In earlier publications Ludes (1989 and 2008) elaborated and revised Elias' original theory to take into more adequate account 'political long-term alternatives,' and upheavals of civilizing processes due to networked communication and non-European patterns of state-dis/formations or failing states. From Elias' classic theory, however, three major components are also pertinent to our inquiry into visions of humanity in cyberculture, cyberspace and science fiction:

1. Individual actors are not the most important or decisive units of analysis, but figurations of groups of people, which do not always consciously choose their actions.

2. Especially in violent conflicts, feelings of hurt (relatives and friends killed or mutilated), hate and extreme distrust dominate over clear interests and rational choices of rather short-term actions of a few weeks or at most years, well below, e.g., individual life-spans, those of established states, or networks (figurations) of generations.

3. Not only the concepts of individual actors and of short-term orientations and actions are at stake, but the very notion of action itself, to be replaced by trans-generational interdependencies.

The latter refer to impersonal forces, hardly open to individual deliberations or even discourses, but which are constituted by so far hidden and may be unintelligible constraints. A few of these traits have been sketched here, as I have argued to enlarge the scope of social scientific modes of theory-formation beyond traditional uni-linear texts to networked social-science-as-arts games.

4. Endnote

This text is partially based on three earlier and much more elaborate inquiries: Peter Ludes: Kulturtheorien als Intermediaspiele, Essen: Blaue Eule, 1989; Peter Ludes (Ed.): Sozialwissenschaften als Kunst, Constance: UVK, 1997; Peter Ludes/Maor Shani: Civilizing Media: Peacemaker? Presentation at the European Sociological Association Meeting in Glasgow, September 2007. I am indebted to numerous face to face conversations and mail to mail communications with Norbert Elias, Agnes Heller, Carla, and Kurt H. Wolff. My presentation is a continuation and transformation of these personal encounters.

Notes

[1] All published in: Peter Ludes (Ed), *Social Sciences as Arts. Original Contributions by Karl Mannheim, Norbert Elias, Kurt H. Wolff and Agnes Heller* (Sozialwissenschaften als Kunst. Originalbeiträge von Karl Mannheim, Norbert Elias, Kurt H. Wolff und Agnes Heller), Konstanz: UVK, 1997.

[2] Cp. Elias, chapter 3 on Game models and his calculation of the complexity of social relationships in Elias 1978, p.101, Table 1.

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Game Design Technology as a Tool for Research and Education in Cultural History

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Abstract
This article investigates a potential of an interactive 3-D medium for the documentary work in the context of cultural studies. The first part summarizes a methodology from the game studies that supports the use of a 3-D game space as dispositive for knowledge representation and informs how to encode and decode spatial narrative information within an interactive cultural-historical simulation. The second part informs about a future research that plans to approach a representation of art works and the Prague lives of the select Bosnian artists during 1990´s in the form of an interactive documentary space (3-D ID).

Key Words: Serious Games, Spatial Narrative, 3-D Interactive Environments, Cultural Transition, Bosnian Artists, Prague.

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1. Introduction

This article investigates a potential of an interactive 3-D medium for the documentary work in the context of cultural studies.

The first part summarizes the concepts from the game studies that support the use of a 3-D game space as dispositive for knowledge representation and inform how to encode and decode spatial narrative information within an interactive cultural-historical simulation. Jenkins's concept of *environmental storytelling* deals with preconditions of immersive narrative experience in spatial storytelling. Fuchs introduced the concept of *virtual knowledge space* where the process of de-categorisation and re-classification may be successfully implemented. The concept of *story map* developed by Nitsche and Thomas may serve for content structuring of such a knowledge space. In the interactive project *Memory Theatre VR* Hegedues revived a historical concept of memory theatre.

The second part informs about a future research that plans to approach a representation of art works and the Prague lives of the select Bosnian artists during 1990´s in the form of an interactive documentary space (3-D ID).

2. Spatial Narrative in 3-D Interactive Applications

Nitsche declares the virtual space as a key element of the experience in 3-D videogames and the designer as acting in the virtual environment development in the role of the 'spacemaker'.[1] He points out to the fact that 'Whereas the playwright and the filmmaker both try to communicate the idea of an experience, the spacemaker tries to communicate the experience itself'.[2] Jenkins recognizes the design activity of virtual environments producers as a narrative architecture. Canter proposed to view the virtual place-making as a setting up the objects and spaces with a focus on the environmental design that will support action in the virtual environment while conveying the social and cultural conceptions of the user communities.[3]

What methodologies are actually available for designers/producers to enable them to design these 'experiential' virtual spaces in the context of an interactive cultural-historical simulation?

A. Environmental Storytelling

How it is possible to represent the urban lives in the big city? In the framework of Lefebvre's *triadic model of space* this issue relates to the category of *representational space* which is defined as the combination of spatial practice and represented space, experientially lived.[4] In Jenkins's words, such a representation deals with the spatial representation of personal stories that shall 'express something of the complexity and heterogeneity of urban life'.[5] According to Jenkins, spatial stories may be a solution for transforming the big city 'from a mundane space into a fantastic one'[6]. Jenkins proposes centralizing the structure of spatial stories around tours and incorporates this idea into *the concept of environmental storytelling* (CES), where he claims CES to bring an immersive narrative experience to the user in four ways:

> Spatial stories can *evoke* pre-existing narrative associations; they can *provide* a staging ground where narrative events are enacted; they may *embed* narrative information within their mise-en-scene; or they *provide resources* for emergent narratives.[7]

The enacted narrative sub-concept, inspired by Eisenstein's concept of 'attractions', introduces the idea of *micronarratives* in games that communicate their main themes and which work towards increased emotional involvement by the user through a series of short narrative units, recalled in user's mind as '*memorable moments*'.

The information resources to be implemented in the 3-D ID medium have often fragmented character. Micronarrative elements may so present an

important feature that will support the comprehension process of the 3-D ID space into the user's grand narrative.

As well the embedded narrative sub-concept might be fruitfully employed in the 3-D ID productions. The interactive 3-D space is here recognized as a part of the discourse that will, in turn, function itself as an expressive element. But the embedded narrativization must be implemented across multiple information channels (interactive 3-D, websites, web 2.0 services, webcasting and other) to present contextual information which enables users to switch available information contents into the above-mentioned 'documentarizing lecture'[8].

B. The Concept of Story Maps

Nitsche and Thomas emphasize the need to understand the spatial composition of virtual environments. They declare that:

> Visitors to a building - movie audiences to a film projection - readers of literary texts - users of real time 3-D virtual environments have to make sense of the spatial data provided. The results are individual cognitive maps of the understood space and its ingredients.[9]

Nitsche and Thomas offer *the concept of Story Map*. For them such a model gives designers a point of reference how users comprehend the virtual world and offers a tool to improve the content structures of virtual environments. For Nitsche and Thomas the basic elements of Story Maps include:

> The connection of event and navigable space, the cinematic mediation of space and event, and the cognitive mapping of these events and the dramatic setting in space. The Story Map is the result of the comprehension process that can be influenced through evocative means of event-, space-, and mediation-structure.[10]

Nitsche and Thomas declare each Story Map as a unique and without identified general form, but having a recognizable effect as 'the better understanding and generation of meaning from the experience by combining space and events'.[11] The Story Maps might be used to comparatively test the comprehension process on a user side during all stages of a player-oriented environment development.

C. The Concept of Knowledge Space

The 3-D ID productions include important locations that represent real town places in the form of 3-D content, but such an environment can't be realized just as a simple reconstruction of the town's cultural landmarks.

Fuchs understands interactive 3-D as a genre in which de-categorisation and re-classification may be positively implemented. Fuchs declares that 'The gamers not designers set reference point of individual interpretation. The gamer navigating the space individual way describes the objects of experience in re-shaped contexts.'[12] For Fuchs, serious games may be classified as processually produced '*Ludic Archive for Cultural Studies*'[13]. Following Fuchs, knowledge spaces attempt „as space and time overcoming, trans-cultural and anti-rational games to produce what Warburg intended with his '*Library for Cultural Studies* (LCS)''. Fuchs further argues about Warburg's methodology: 'Warburg's research emphasized to gain relevant knowledge on materials of timely open-ended origin through *process of collage*. Equally Warburg used to relocate locally disparate objects, narratives and symbols.'[14] According to Fuchs, videogame designers may apply, in a similar way, Warburg's method of time-collage and space-collage to evoke 'amazed experiences' for their users.

Hegedues realized an interesting approach to the structuring of the virtual space in the interactive installation *Memory Theater VR*. She revived the work of the Neo-Platonists that constructed virtual temples of memory. Grau declares that memory theaters were:

> spaces of thought, memory storage spaces for the assembled knowledge of their time, where multilayered, theoretically infinite associations between the displayed objects and memory spaces were possible. In the imagination, the mind could navigate through spaces that facilitated combinatory process.[15]

According to Grau, Hegedues has applied the old concept of the *memory theater* while offering the user with virtual space 'as dynamic structure with intermedia elements, thus *expanding* the historic *mnemonic techniques with contemporary media*.'[16]

Although the 3-D ID productions can't create complete or partially complete hyper-maps of the big town's virtual cultural geographies, the experimental collage method offers a tool that enables to integrate geographically and culturally dislocated cultural landmarks and items.

E. Implementing the Virtual Architectures

According to McGregor, videogames do not endlessly improve the patterns of spatial use but are reusing, reapplying and restructuring the

elementary patterns already existing in the real world. She identifies six patterns that describe the majority of interactive acts in the virtual environment:

> *Challenge space* - Game space directly challenges player - Forms gameplay
>
> *Contested space* - Game space as arena for conflict - Affects gameplay
>
> *Nodal space* - Game space structured by social layout - Structures gameplay
>
> *Codified space* - Game space as interface & information - Contains information in gameplay
>
> *Creation Space* - Game space is created & altered - Becomes gameplay
>
> *Backdrops* - Game space as non-interactive - Not part of gameplay[17]

The majority of interactive 3-D virtual environments often use a combination of all above listed patterns.

Following Roudavski and Penz, the presumptions about the meaning of an environment are always socially dependent and always refer to the collective practice. In order to affect a user understanding, memory and navigation they propose to employ the individual character of the mental image: 'The structure of the mental image transforms as familiarity with the place grows and the meaningful relationships between components become established.'[18] They propose to implement the redundant elements, deduction and prediction to help the user deal with the inconsistency always present in the virtual environment.

The presence of mediation devices may significantly limit the designer's intention to implement the above-mentioned real world patterns. While the mediation devices will always have a strong impact on the understanding of the virtual space, the designer may take into account the fact that 'The influence of these constraints can be averaged for all users at all times if the set of mediation devices is identical for all.'[19]

3. Advantages of 3-D Interactive Form for Documentary

In the discourse of the game studies an ID 3-D environment relates to *realist videogames* as understood by Galloway, where games 'reflect critically on the minutia of everyday life, replete as it is with struggle, personal drama and injustice'.[20]

The *interactive 3-D form* offers several important advantages over film and video production. For Brinson, in the case of documentary film:

> The filmmaker's portrayal and delivery of the events is at the foreground of the experience. […] Often a viewer will agree with the film's subjective points as well as take the portrayal of events as historical fact. […] This negotiation of the content is a result, an after effect of the film documentary's *narrative*. In a documentary game, the player's reaction to the content -- both within the game and in mind -- *is the narrative*. It is part of the real-time, present tense experience of the game's portrayal, rather than a personal addendum to the grand narrative. […] The game's simulation of events acts as a set of supportive story threads to the player's grand narrative.[21]

Similarly, Nitsche et al[22] emphasize the continuity of experience and action through spatial navigation, where interactive 3-D non-linear narratives have a major advantage not available in Hypermovie structures, for example.

Dankert & Wille point to the fact that a designer is, in the case of interactive 3-D documentary, not limited by genre conventions and the demands of linearity and continuity. They reveal the major advantages of this media form, including decreased importance on tempo and an easier creation of believable illusion with use of unobserved observation via virtual camera.

So, the ultimate goals for this genre, as declared by Dankert & Wille, is to set the user free from 'all the limitations of spectatorship' and to provide 'multiple choices with a wide range of possibilities in the form of interactivity' The rapid popularization of documentary through faction form, as envisioned by Raessens, is still major challenge, even for today's experimental crossmedia documentary productions.

4. Prague Lives of Bosnian Artists in 1990´s

After the fall of the Czechoslovak communist regime in 1989, the City of Prague became the most popular post-communist residential destination among the Western expatriates[23]. The expatriate community members established many important cultural institutions such as art foundations, English newspapers and journals, language schools, literary

cafes, book stores, music clubs, music shops and others. Their presence and activity significantly influenced *Prague's socio-cultural transition*. The town's cultural history and the then extremely open nature of the Czech community were among the main attractions for expatriates - not only for Americans but, since 1992, for many Bosnians following the breakdown of the Yugoslav Federation, including several recognized Bosnian intellectuals and artists. Bosnians formed one of the important foreign communities in Prague. Bosnians started their post-war life in the newly-established Czech state, gradually recovering economically from the command economy to the market system and culturally transforming into *a post-communist cultural environment*.

Bosnian intellectuals established friendly relations with each other, but they have never formed a directly self-promoted expatriate community[24] as was the case with Prague-based Americans. In the contrast to the Western residential community that lived from savings and advantageous investments, Bosnians were forced to apply for permanent employment, learn the Czech language and accommodate themselves to the surrounding Czech social environment.

In the 1990s they lived daily experience so intensely that it often challenged them to transform their feelings immediately into the poems, stories or soundscapes. The Prague-based Bosnian artists now actively publish, exhibit and perform. But their historical relevance in relation to Prague's cultural transition in the 1990s has not been yet fully documented and comprehensively evaluated by Czech or international scholars.

5. 3-D Interactive Documentary on Prague life of Bosnian artists

The future works on 3-D ID aim to draw an attention to this interesting artistic community by documenting and cross-medially representing their art work and daily lives, which illustrate an important alternative vantage window into Prague's post-communist social and cultural transition. The Bosnian artists' productions reflect the City of Prague's socio-cultural during the 1990s in a unique way. The moments of protagonist's daily activities possibly express the substance of the Prague life in 1990´s and offer the differentiating characteristics via the Bosnian eye-lens. The medium of the 3-D ID offers a challenging environment for the cultural-historical simulation to be experimentally built in the form of dramatized events in the interactive 3-D space.

6. Conclusion

This article presents a summary of the selected approaches to the incorporation of the information contents into 3-D virtual space and identifies several added value elements to be employed in the frames of the interactive 3-D documentary production as a cultural-historical representation. The listed

concepts share the understanding of the virtual space as kind of explorative information space or 'memory palace'.

Notes

[1] Coined by R Walser, cited in M Nitsche, 'From Faerie Tale to Adventure Game', in P Frelik and D Mead (eds), *Playing the Universe: Games and Gaming in Science Fiction*, Maria Curie-Sklodowska University Press, Lublin, 2007, p. 213.
[2] Ibid.
[3] Canter cited in S Roudavski and M Penz, 'Spatial Context of Interactivity' in S P Schaffer and M L Price in *Interactive Convergence: Critical Issues in Multimedia*, Inter-Disciplinary Press, Oxford, 2005, p. 47.
[4] Analyzed in A Stockburger, *The Rendered Arena: Modalities of Space in Video and Computer games*, PhD. Thesis, University of Arts London, London, 2006, p. 78.
[5] H Jenkins, 'Tales of Manhattan: Mapping the Urban Imagination through Hollywood Film', in L Vale, S B Warner (eds), *Imagining the City*, Center for Urban Policy Research Press, 2001, p. 9 (in article).
[6] Ibid.
[7] H Jenkins, 'Game Design as Narrative Architecture', in N Waldrip-Fruin, P Harrington (eds), *First Person: New Media as Story, Performance, and Game*. MIT Press, Cambridge, 2004, p. 5 (in article).
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[10] Ibid, p. 88.
[11] Ibid, p. 93.
[12] M Fuchs, 'Spielräume als Wissensräume' in *Kunstforum International, Kunst und Spiel I*. Band 176, Juni - August 2005, p. 4 online, translation by D Riha.
[13] Ibid p. 9 online, translation by D Riha.
[14] Ibid p. 3 online, translation by D Riha
[15] O Grau, *Virtual Art: From Illusion to Immersion*, MIT Press, Boston, 2003, p. 231.
[16] Ibid.

[17] L G McGregor, 'Situations of Play: Patterns of Spatial Use in Videogames', In *Proceedings of Situated Play - DiGRA Conference*, The University of Tokyo, Tokyo, September, 2007, p. 539.
[18] S Roudavski and M Penz, p. 50.
[19] Ibid, p. 51.
[20] A R Galloway, 'Social Realism in Gaming' in the International Journal of Computer Game Research, volume 4, issue 1, November 2004, p. 5 (online).
[21] Cited in T Fullerton, 'Documentary Games: Putting the Player in the Path of History' in Whalen, Z, Taylor, L. (eds), *Playing the Past: Nostalgia in Video Games and Electronic Literature*, Vanderbilt University Press, June 2008, p. 23 (in article).
[22] M Nitsche, S Roudavski, M Thomas, F Penz, 'Narrative Expressive Space' in *ACM SIGGROUP Bulletin*, vol. 23, issue 2, August 2002, p. 10 - 13.
[23] The estimated number of the American expatriates living in Prague in the 90s reached 40,000 - Source: K Drew, *CNN*, 5. October 2004. Alan Levy, the editor of Prague Post introduced Prague as the Paris of the 1990s.
[24] For more information visit the following websites: www.damer.com/prague/, www.praguewriter.com or www.beefstew.com .

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Part IX

Character-Community & Anthropology

Shared Space: Seeking Real Insights from Virtual Friendships

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Abstract
As relational beings we intuit that the complex weave of human associations, institutions, and structures-from the immediate and natural (e.g. progenitor and progeny) to the constructed and abstract (e.g. nation and citizen)-is at a minimum instrumental to our fulfilment and/or happiness as human beings. However, the challenges concerning the proper integration and balance of these associations seem particularly daunting in the contemporary context. Modern political and ethical discourse has rightly compelled us to think critically about proximity, similarity, and special inclinations as the bases and regulating motivations for our ethical lives. Moreover, technological advancements and increased globalization have provided a unique (often virtual) arena for testing these intuitions and expressing these commitments. The relative isolation and homogeneity of, say, Aristotle's *polis* has been infiltrated by wires, cables, and waves capable of carrying real-time information regarding the events and activities of persons who reside far beyond the decaying borders of our once relatively insulated moral and political communities. Consequently, we find ourselves confronted with new questions concerning the nature of our relationship to individuals who populate an ever larger world community. In view of these challenges, this paper draws on Aristotle's classical theory of friendship and contemporary philosophical reflections on preferential relationships to investigate the nature and significance of virtual friendships. By 'virtual friendships,' I have in mind the types of relationships that are the promise and effect of virtual social networks such as MySpace and Facebook. Rather than lament the seemingly tenuous or superficial character of such relationships, the paper argues that virtual friendships offer both analogical and tropological insights that are pertinent to contemporary debates concerning the structure, role, and value of 'real' friendships in our moral lives.

Key Words: Friendship, Social Networks, Aristotle, Facebook, Ethics.

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The intersection where Aristotle's moral theory meets virtual social networking, does not present itself for obvious identification. However, the important confluence proves to be a significant anthropological supposition that is espoused by the former and evinced by the latter. The supposition is

that humanity is, by nature, a social animal. We are relational beings. To speak to the contrary, in my mind, is to disregard the ubiquitous evidence of our sociality, which is rooted firmly in the ground of shared experience and is thereby readily exposed to the till of academic investigation and common observation alike. Ontologically situated and psychologically structured as we are, I believe we intuit that the complex weave of human associations, institutions, and structures-from the immediate and natural (e.g. progenitor and progeny) to the constructed and abstract (e.g. nation and citizen)-is at a minimum instrumental to our fulfilment. Thus, while conceptions concerning the components of such fulfilment will vary according to the flux of history, culture, and individual experiences, the intuition itself abides. It generates an interest in determining the proper organization and prioritization within and among various social spheres and the best ways that each of us can situate our lives within these spheres.

Thus, it is no surprise that when technology offers a new space for experiencing, expressing and, perhaps, amending aspects of our social nature, it is greeted with an equal measure of expectation and suspicion. It is the same dialectical blend of optimism and caution that has propelled the history of ethical, social, and political discourse concerning the function and regulative principles of our more traditional social contexts-of families, friendships, communities and nations. Such discourse is inevitable. It is invaluable. It arises out of a collective recognition that the diverse phenomena of human relationships, activities, and institutions provide us a window onto the heights and depths of our social and moral inclinations. Accordingly, as we engage this space and participate in the variegated virtual communities to which it gives rise, we must consider its relationship to and affects on our broader social lives. As we do, I argue that we would do well to avoid succumbing to the easy appeal of either sharp dichotomies or reductive conflations.

Here I wish to provide only an introduction to a larger project, which draws on Aristotle's classical theory of friendship and contemporary philosophical reflections on preferential relationships to investigate the nature and significance of virtual friendships. By 'virtual friendships,' I have in mind the types of relationships that are the promise and effect of virtual social networks such as MySpace and Facebook, but would also include the various forms of social communities being discussed at this conference. Rather than lament the seemingly tenuous or superficial character of such relationships, I will argue that Aristotle's philosophical taxonomy of friendship types offers an instructive lens for understanding the potential significance of virtual friendships, and, moreover, that the nature and context of such friendships supply instructive insights for rehabilitating Aristotle's model of friendship in ways that address contemporary critiques of

preferential relationships, which identify within such relationships a tendency toward insularity and the neglect of broader social and political obligations.

In his *Nicomachean Ethics,* Aristotle presents a teleological vision of humanity, grounded in an anthropology that isolates particular rational activities as uniquely and paradigmatically human. Against this conception of our nature, Aristotle proceeds to evaluate common opinions regarding what constitutes a good human life. Aristotle's evaluation disqualifies and refines potential candidates and initiates his own prescriptive account of the states, activities, feelings, and goods that facilitate and comprise human happiness. The vision he develops-as well as the method he employs-makes it clear that Aristotle recognizes the ontological, psychological, and natural necessity that the good life be sought and realized within the context of a variegated web of social relationships. Just as, for Aristotle, ethical questions cannot be divorced from political considerations; the individual agent cannot be excised from the intimate relationships, communities, and social institutions wherein her life takes shape. Aristotle concludes, then, that our happiness and fulfilment depends to a considerable degree on our success at forming and sustaining good social relationships.

One form of social relationship to which Aristotle dedicates a conspicuous amount of attention is friendship. What is striking about Aristotle's theory of friendship is his unequivocal and persistent exhortation that friendships constitute an inimitable and necessary feature of a fulfilling life. According to Aristotle's understanding, friends represent intrinsic goods and assist one another in the formation and ongoing integration of an instructive vision of the good in their daily activities and pursuits.

Given that Aristotle considers friendship to be an essential ingredient in the good life, he takes care from the outset to stipulate a working definition of friendship, including its necessary and sufficient conditions. Whereas the necessary conditions he outlines serve to distinguish friendship from other forms of social relationships, the sufficient conditions stretch the definition widely enough to include under its canopy a range of relationships we might not immediately consider under the category of friendship. One gets a sense of the sweep of Aristotle's conception of friendship if one considers the preliminary definition Aristotle provides, which is summarized concisely by Diana Cates when she writes that, according to Aristotle, 'friendship is a relationship of mutually known and reciprocated affection and well-wishing in which each person wishes and does good to the other for the other's own sake.'[1] In other words, friendships include a range of mutually recognized social relations, each of which involves the reciprocation of benevolence, beneficence, and affection.

Utilizing the stipulated conditions he has articulated, Aristotle proceeds to identify three categories of friendship, each differentiated from the others according to the good that explains the genesis and continuation of

the relationship. According to Aristotle, friendships emerge and persist between two people because of a shared quality (or object) that is perceived by the participants to be in some way good, and which makes each lovable and attracted to the other. Thus, to put it roughly, one's care for one's friend is explained by and contingent upon one's friend exhibiting or providing occasion for the realization of some good that one has erstwhile identified as being worthy of pursuit and affection. According to Aristotle the affective objects that explain and ground the relationships fall under three broad and not necessarily mutually exclusive categories: the pleasant, the useful (or advantageous), and the good.

Like all components in Aristotle's teleological scheme, the value of these friendships-as well as the goods around which each is formed-must be evaluated in terms of their relative contributions to the participants' pursuit of happiness or flourishing. Therefore, while friendships of advantage and pleasure are endorsed by Aristotle as conducive to the good life, the value of these relationships is correlative to the value that their respective goods maintain in the *total life* of the happy person. Consequently, if the principal draw our friend has on us is relative to the pleasure or advantage we derive from our relationship to her, then the affections and goodwill that are reciprocated will be grounded in a good that represents only a limited dimension of each of our lives. That is, the relationship, so constituted, provides the friends with an amiable, but necessarily incomplete, picture of each other. Aristotle is claiming that while the relationships are indeed friendships and on that account valuable, the nature and intimacy of the relationship is mitigated because of the subordinate role that the good sustaining the relationship maintains in human life, as Aristotle understands it.

As a consequence, the affection for one's friend is based on an incomplete grasp of who she is. In such relationships one does indeed care for one's friend, It's just that he 'conceives of her according to a narrow description of who she is relative to him, such that he is attracted to her and wishes good to her as someone who is of help to him or someone whose company brings him pleasure.'[2] Because the reciprocated goodwill that constitutes these relationships is predicated upon each friend's circumscribed vision of the other, and attached to a partial and malleable characteristic of the other's total persona (including her goals, passions, character, etc.), the relationships are vulnerable to both change and dissolution in a way that friendships based upon goodness of character are not.

According to Aristotle, in friendships based upon goodness of character, 'The excellent person is related to his friend in the same way he is related to himself, since his friend is another himself. Therefore, just as his own being is choiceworthy for him; his friend's being is choiceworthy for him in the same or similar way.'[3] Thus, as Nancy Sherman explains, in

choosing a friend, one 'chooses to make that person a part of one's life and to arrange one's life with that person's flourishing (as well as one's own) in mind.'[4] Thus, character-friends model parallel patterns of deliberation, decision, feeling and action that express an intimately shared way of perceiving and reacting to reality, and which dispose them to be especially attuned to the relevant particulars of a given context that determine the limits and possibilities for virtuous action. While moral goodness, according to Aristotle, provides the explanation for the formation of the relationship, its most important contribution is the ongoing acquisition, cultivation, and animation of virtue. Through both shared and independent pursuits, the friends engage in a variety of activities and, given their investment in one another's good moral character, they provide motivation and guidance in performing these activities in a way that accords with virtue. Accordingly, these relationships will advance the ongoing and intentional cultivation of the full range of personal, interpersonal, and more broadly social virtues, which, according to Aristotle, must be included in the total life of the happy person.

To summarize, Aristotle stipulates a definition of friendship that embraces a broad range of our social relationships. However, he takes care to distinguish the deficient forms of friendship, which are indeed generally praiseworthy and important to the enjoyment of one's life, from an ideal type of friendship that proffers more substantial contributions to the total life of the good person. The lesser forms of friendship, even when constructed around appropriate pleasures or advantages, are, when compared to this ideal, are found wanting in terms of the relative worth of the good that grounds them, the restricted vision of the other that such friendships provide, and the extent to which such relationships prove to be vulnerable to changes in subjective predilections and external influences. Accordingly, character-friendships, Aristotle's ideal form, derive their relational primacy and intimacy via the foundation of their affections and well-wishing, and the more comprehensive picture of one's friend this foundation provides. As a result, character-friendships constitute a more substantial and necessary ingredient in one's life. Moreover, given their intimacy and the intricate way they are woven into the fabric of one's life, they can be counted on to be more constant and less vulnerable to the permutations of life.

Aristotle's characterization of friendships is, in many ways, parallel to the way these relationships are generally envisaged today. In a fashion similar to Aristotle's rather generous definition, the title of friendship is today used colloquially to denote a wide range of social associations to which other descriptive categories might also be appropriately assigned (e.g. colleagues, classmates, neighbours, etc.). This rather broad usage is adopted freely within social networking sites, where generally all of one's reciprocally accepted associations within the network are added to one's list of friends. Thus, one finds within these contexts individuals whose enclave of friend's numbers in

the hundreds, even the thousands. Certainly Aristotle would find such claims not only audacious, but impossible. Consequently, there is certainly an over use of the term friend within these contexts, but it is hard to identify any serious problems or dire consequences of this liberal designation. Aside from these extreme examples, there remains a range of online relationships, which are facilitated by social networking sites, that I believe fall within the definitional parameters Aristotle provides. As such, these friendships have the potential to enhance not only our online experience or virtual lives, but also our total lives, of which these online experiences and interactions are but a part.

Let us focus for the time being on virtual friendships cultivated around areas of interest commonly expressed within the profile structures familiar to online social networking sites. General categories of such interests often include: literature, movies, forms of music, athletic teams, and so on. Within the social networks themselves these associations may include participation in online groups or simply pleasant exchanges with other individuals who share these interests. The shared interest need not be anything so heady as modern art or metaphysics. It could just as well be Belgian beers or baseball. The question, then, is whether such online relationships can be accurately identified as friendships without undermining the significance of the designation.

Certainly, if the principal draw our 'virtual friend' has for us is her shared appreciation for well-brewed beer or a well-turned double play, then the various affections and expressions of goodwill that are reciprocated will be grounded in a good that represents-hopefully-only a limited dimension of each of our lives. This, of course, does not entail that all conversations and activities need be organized around these interests. However, as we have seen, Aristotle would contend that these relationships-absent of further development-are predicated upon each friend's circumscribed and limited vision of the other, and attached to a partial and malleable characteristic of the other's total persona . This may be especially true of relationships where proximity, a customary ingredient of traditional friendships, is substituted with a space and manner of exchange that are virtual. Constituted as they are, these relationships are vulnerable to both change and dissolution in a way that our most intimate relationships are not. However, this vulnerability maintains no necessary connection with the 'virtual' context of the relationship, but rather the limited role that the mutual interest plays in the total life of each agent, their respective identities, and their more comprehensive and inherently hierarchical conceptions of value.

That is, if such associations are to be designated as something less than friendship, then we would seemingly have to disqualify also those more traditional friendships that are arranged around, say, regularly sharing a pint and casual conversation while watching our favourite team. The temptation

to discount the former while recognizing the latter is, I suspect, the product of a common inclination to diagnose the legitimacy of virtual relationships (indeed all things virtual) in accordance with a standard of an ideal criteria, rather than an accurate account and appraisal of the nature of our real relationships. Even the designation virtual, as it is used colloquially, implies that such relationships are not really real, not authentic, not proper. The potential consequences of this attitude include the quarantine and abandonment of these important expressions of our relationality and a neglect of the important insights they provide into who we are as social beings in an increasingly technological world.

Time allows me to include only a few brief examples of the way these 'virtual friendships' may be mined for real insights. If it is true, as many contemporary theorists commend, that we must 'unpack or deconstruct the enduring notion of 'integral, originary and unified identity,' if we accept the proposition that our identities are not fixed or stable, then we should expect from our relationships-be they virtual or real-an ebb and flow of cultivation and dissolution.[5] Accordingly, given the malleable and protean nature of the virtual context of social networking, such sites and the relationships that arise within them, might offer constructive insights for real relationships, where embodied and proximate, we are more likely tempted to buy into essentialist conceptions of the rigid or fixed nature of identities, those we adopt ourselves, as well as those we assign to others. Thus, given their unique context, virtual relationships may prove a valuable resource beyond the attachment to or affection for a particular trait or characteristic. Incorporated into the total life of the individual, they may bare witness to significant deeper truths about our identities and social nature. Situated as they are, these friendships, perhaps, provide a level of detachment that facilitates a more objective analysis. However, if these relationships are properly understood, the insights of such analysis demand a reflexive integration into the life of the subject, including her dispositions of thinking, acting and feeling. As such, even our most basic online relationships prove to have moral worth that extends beyond the pleasure or utility they may provide.

The challenges concerning the proper integration and balance of personal and social commitments seem particularly daunting in the contemporary context. Modern political and ethical discourse has rightly compelled us to think critically about proximity, similarity, and special inclinations as the bases and regulating motivations for our ethical lives. Whatever role our most intimate bonds may play in determining our ethical attitudes and behavior, these bonds are understood by most modern philosophers to be subordinate in moral significance to the bonds we share with human beings as such. What is central to the moral life, for most modern philosophy, is the moral recognition of universal human equality, the

protection of human dignity; the principle of respect for persons as such, and deliberative practices that adopt the state or disposition of impartiality, which has come to be associated with the moral point of view and social justice more generally.

Certainly new technologies and increased globalization have provided a unique (often virtual) space for testing these intuitions and expressing these commitments. The relative isolation and homogeneity of Aristotle's *polis* has been infiltrated by wires, cables, and waves capable of carrying real-time information regarding the events and activities of people who reside far beyond the decaying borders of our once relatively insulated moral and political communities. Consequently, we find ourselves confronted with new questions concerning the nature of our relationship to a larger world community.

However, both friendships and cyber-technology have been accused for different reasons of potentially isolating us from larger social communities and the obligations they comprise. For example, some have argued that friendships can be isolating insofar as the other is perceived as-to use Aristotle's description-another-myself, it may condition an insular social sphere seemingly cut off from the rest of community. As Kierkegaard suggests throughout his *Works of Love*, one's most intimate relationships may devolve into the I's infatuation with the Other-I.[6] They may facilitate the construction of harmful moral boundaries that designate what is mine, what is my concern, what is my obligation and what is other. However, I propose that virtual social networks provide a potential remedy to the isolation of both contexts. They allow us to perceive the socially constructed nature of all relationships, to see them embedded in a broader social framework. Moreover, given the manifold nature of these interactions they provide a helpful and analogous reminder of the otherness of even my closest relations, which counters both the myopic and the paternalistic tendencies that may become engrained in such relationships.[7]

I argue that as technology continues to be an active presence in our lives, we would be wise to avoid a distinction of planes conception of virtual relationships and communities by regarding the virtual as a shared space of real interaction rather than a subordinate, less than real, realm of experience. Considered in this way, I believe these relationships, as friendships, are capable of playing the various significant roles that Aristotle envisioned for them-they will be sources of pleasure and the development of interests, but also contexts within which important dispositions of thinking, feeling and acting will be cultivated.

Notes

[1] D Cates, *Choosing to Feel: Virtue, Friendship, and Compassion for Friends*, University of Notre Dame Press, Notre Dame, Ind., 1997, p. 50.
[2] ibid., p. 51.
[3] NE 1107b6-8. All references to the *Nicomachean Ethics* are from Aristotle, *Nicomachean Ethics*, translated by T Irwin, Hackett Publishing, Indianapolis, Ind., 1999.
[4] N Sherman, *The Fabric of Character: Aristotle's Theory of Virtue*, Oxford University Press, Oxford, 1989, p. 133.
[5] D Bell, *An Introduction to Cybercultures*, Routledge, London, 2001, p. 114. Please consult the bibliography for other resources on the topic of identity in cyberculture.
[6] See S Kierkegaard, *Works of Love*, translated by H Hong and E Hong, Princeton University Press, Princeton, NJ, 1995.
[7] These examples will be further developed and unpacked in an extended version of this paper.

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A Phenomenological Analysis of Social Networking

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Abstract
When someone says 'I am online', it is a phenomenological issue. In reflecting upon the later philosophy of M. Heidegger, in particular focusing upon *The Question Concerning Technology*, social networking is a classic modern technology. The essence of the technology of social networking is Enframing, the essence of all modern technology for Heidegger; the essence of technology is nothing technological, but instead how the technology orientates humans towards the world. Social networking allows the users of the network to be placed in 'standing-reserve', and so the actual essence of social networking is no different to other technologies. The resources in social networking are people; and so the technology is creating the sense that people can be manipulated as resources, and put in standing-reserve.

Key Words: Enframing, Standing-Reserve, Social Networking, Poesis, Disclosure, Authenticity.

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Heidegger's aim in *The Question Concerning Technology* is set out in the first paragraph[1]: to investigate technology in order to prepare us for a 'free relationship' with technology. Heidegger is not concerned with the existence of technology, but instead how humans are orientated towards technology; the problem is not the technology itself, and so the problem cannot be resolved through improving technology.

> Thus we shall never experience our relationship to the essence of technology so long as we merely conceive and push forward the technological, put up with it, or evade it. Everywhere we remain unfree and chained to technology, whether we passionately affirm or deny it.[2]

Heidegger accepts that technology cannot be avoided or escaped, and so must be considered. More importantly, Heidegger asserts that the essence of technology is not 'anything technological'[3] either. This assertion serves the purpose of opening up technology for discussion free from the domain of technological experts, and towards the field of philosophy. The removal of the technological from the essence of technology also allows Heidegger to undertake a historical analysis of technology, including an analysis of Greek

philosophy, and to argue that the essence of technology precedes the emergence of modern technology in the 18th Century.

Heidegger begins his analysis of technology by questioning how humans think about technology. Heidegger draws two conclusions: technology is a means to an end and technology is a human activity. Heidegger terms these the *instrumental* and *anthropological* definitions of technology.[4] Heidegger assesses these definitions to be correct, but they do not go far enough for Heidegger; the definitions describe how technology is used, not how technology affects the understanding of being. The understanding of technology that humans have based on the definitions given prevents entities from understanding the relationship between being and technology more fully; in effect, the definitions of technology based on the pragmatics of technology create a 'blind spot' that prevents further understanding. Heidegger's aim is to uncover this more fundamental insight into how technology affects the relationship between being and understanding being. Humans can control technology, but even this control is informed by our 'instrumental conception'[5] of what technology is; our thinking about technology is dominated by what the technology does and how humans use the technology, rather than by how the technology affects being and what is the relationship between humans and technology.

To understand how being and humans stand in relationship to technology, Heidegger considers what is meant by the 'instrumental' use of technology as a means to an end. To do this, the assumptions that underlie such pragmatic considerations of technology such as 'getting things done' need to be considered. This assumption reduces to how one thing (such as a social networking website) has an effect on another thing (the friendships that a person has). The analysis of the instrumentality of technology leads Heidegger to consider causality; Heidegger's aim is to return the word cause to a more fundamental meaning. Cause, for Heidegger when considering the ancient Greek etymology of the word, is closer to *aitia* or 'to occasion'. When considering a chalice, the silversmith occasions or causes the chalice, bringing together the four causes, 'to make present' the chalice in time and space. Causes are redefined as the 'ways of being responsible' which assist the potential of the chalice in the silver for the chalice. Heidegger requires the reader to imagine the chalice that is on its way to existence, and the ways of 'being responsible' help the chalice achieve this bringing into existence.

Heidegger introduces the term *poesis*, which is related to being responsible for something in the sense that the silversmith is responsible for the chalice. *Poesis* means 'bringing forth', and Heidegger means two things by bringing forth; the first being the bringing forth into existence, such as the silversmith practices with the chalice, and the second being the bringing forth into nature, such as a tree that is brought forth from the acorn. Both kinds are *poesis,* in the way in which something was brought forth which was not

present. 'Bringing-forth brings out of concealment into unconcealment'[6]. The understanding of *poesis* as a kind of revealing led Heidegger to conclude that it is related to the Greek word *aletheia,* which means 'revealing' and is also the Greek word for truth; at this point Heidegger links the bringing forth of technology with truth; hence technology is discussed with reference to truth.

Heidegger wants to argue that technology is a kind of *poesis,* a way of bringing forth from concealment, and as such is in 'the realm of truth'[7]. This is now a radical departure from the instrumental definition of technology, as Heidegger is not considering the usage of technology in his discussion. Instead, the focus is on how technology brings forth what is absent, and what effect this has on truth. Heidegger is looking for an alternative method to thinking about technology, away from instrumentality. Heidegger had a key idea; technology is a *poesis* that brings forth what has not been present - such as the windmill that harnesses the power of the wind. The wind was there, but the power of the wind requires the technology to be revealed forth. Modern technology does not act in the way of bringing forth, but instead extracts and exploits, such as the changing of the earth by mining coal into a resource, which cannot be repaired or restored to its former state. Heidegger also uses the Rhine river to draw the comparison between modern technology and the 'revealing' of poetry. When the river is dammed to provide electricity, the meaning of the river is altered; it becomes a resource for energy. The view of the Rhine as a source of hydroelectric power is contrasted with the poetry of Höderlin, whose poetry portrays the river as a source of artistic, philosophical and nationalistic inspiration. The source of revealing is the same in both cases, but the result of the revealing is clearly different. Modern technology reveals, but the revealing is of a different kind; to explain this further, Heidegger introduces the notion of the standing reserve.

The standing reserve is linked to the notion of instrumentality with which Heidegger began. The instrumental orientation of technology brings all things in the world into standing reserve, and Heidegger's fundamental argument is thus reached; technology transforms human beings into standing reserve. The forester, for example, is a resource, and therefore is at the mercy of, the paper industry that has developed through technology. The paper industry also transforms the reading public into a resource through and hence into standing reserve. However, humans are never just raw materials; the position of humans as the forefront of technological advance means that humans will not become purely raw material. The way we orientate ourselves towards the world is changed by technology though. The fundamental relationship between the world and humanity is changed by technology through an orientation that Heidegger labels Enframing (or *Gestell*).

Heidegger uses Enframing to describe how humans come to relate to the world around them, or how they are orientated to the world around them.

For Heidegger, humans have a concept of Enframing that allows us to categorise the world in a certain way. Heidegger explains *Gestell* as a type of schematic structure; something that organises our perceptions in a manner that informs our understanding of the world. The forester, through Enframing, will view trees in a manner different from the conservationist, due the Enframing of the world through the technology that places the forester in this relationship to trees. Thus, Enframing compels humans to categorise our experiences and the entities that we encounter in the world. This then gives humans a sense of control over the entities that are encountered in the world, and it is this which is the character of modern technology; the Enframing, or categorisation of entities in the world.

Heidegger states that the essence of modern technology 'is by no means anything technological'.[8] Technology does not have its essence in technological creations themselves, and not in the activities that humans indulge in using technology, such as creating social networks such as Facebook. Instead, the essence of technology is realised through the 'frame of mind' that the individual constituents of technological processes are viewed; in social networking, the neither the software nor the users are the essence of the technology, but the way that the parts of this relationship as an interaction - the technology and the users - are viewed as raw materials for another product, that is the actual social networking that occurs itself, is the essence of modern technology. In this way, Heidegger's argument is that the essence of technology is the ordering of the components of the technological process into specific means to the end of the technology. Users using social networking software and websites are ordered by the technology into a relationship not only with the other users but also with the technology itself.

Social networking, by having the essence of Enframing, transforms users into standing reserve. This is a process of reduction; as Heidegger notes, humans go from being entities with deep essences to 'functionaries of Enframing'.[9] As functionaries of Enframing, humans are affected in two ways; firstly, they are transformed into resources to be exploited by other users, but also humans will be driven to get the most out of the possibilities that exist in other people. In doing this, the deep essences of other entities will not be recognised; other entities are simply seen in terms of their ease of use and maximum utility, and how flexible the entity is in being used for the needs of the person. Such a revealing 'never comes to an end'[10] because everything must be considered as a resource at all times. Hence, an entity would, if revealed as a resource that had no further usage, become obsolete and not suitable for further consideration if Enframing has committed a person to the view of other entities as standing reserve. Social networking sites have the notion of standing reserve embedded within them; the sites compel users to rank and stratify their relationships with other users in order of preference, reducing relationships with others to a hierarchy of utility - a

person is promoted based on their utility within the social networking environment. This then should be reciprocated by advancement in the hierarchical structure of friendships that users have on sites such as Facebook and MySpace. The result is that the encounters and interactions that take place within social networking are essentially ones designed to promote the utility of one user to another; the relationship is one of standing reserve, the more that one user can be used by another, the stronger that relationship will be when viewed through the structures enforced by social networking software.

The notion of standing reserve also reflects other salient features of the affects of social networking on users. Modern technology, by having the essence of Enframing and reducing entities to standing reserve, changes the sense that humans have for the world.[11] This means that modern technology provides the sense that all things are available to use here and now; and that humans can have anything immediately and on demand. In order to achieve this instant gratification, it is necessary to constantly rearrange and reassess our practices to achieve this, such as changing our modes of communication from face-to-face, to telephone-based, to social networking. The speed and relative ease of communication over social networking has been advanced as one of the primary reasons for the growth of the phenomenon.[12] This change in practices inevitably alters the significance of entities with which humans have interactions. Heidegger uses the example of farming to illustrate this:[13] farming was a vocation, the purpose of which was to tend and care for the land that the farming took place on. When farming became a mechanised industry, with no notion of stewardship then the ability of a farmer to look after nature was reduced. Indeed, the Enframing of modern technology sets out something other than maintenance; it is now the role of the farmer to improve nature, not maintain it. If nature is improved by modern technology, then humans are no longer constrained by nature; they can change it, do with it what they want and extract whatever is needed from it due to its status as a resource.

Social networking does for human relationships what agricultural mechanisation has done for farmland. As human interactions are reduced to emaciated and superficial conversations through computer-mediated platforms, their purpose is to extract as much information from as little communication as possible. Hence, instead of care and consideration being the key parts of interpersonal friendship communications, the communication which takes place through social networking is, for the main part, characterised by short, abbreviated styles with the aim of advancing as much information a possible with the least amount of energy or resource spent; the maximum gain for the minimum effort. Modern technology, in this case social networking software, facilitates the maximum use of it exposes, and in this case it is other users that are exposed. Social networking software places

users into the open; as a modern technology it grasps users in a manner that 'unlocks' them and their potential as resources and which then allows other users to exploit and use the other users. More over, the structure of such networks implicitly requires the view of others as resources due to the hierarchical structuring of other users in the users pages. Other people are presented in a manner that makes them observable as a resource; other people are ranked, labelled as 'top friends', and users are encouraged to do this through the software interface that presents the user with no option but to rank and objectify other people. Hence, other people are enframed as a resource in that they are presented to the user not as people, but as a link to be connected to, and to be presented on their own page in a certain way. In looking at and using social networking sites, the user sees every other user that they are linked with as a resource; users are not seen indeterminately, to be chosen and labelled through analysis and consideration, but just as a link to another page that can be used in that way. Social networking, as its essence is Enframing, transforms users from deeper entities into standing reserve, and presents all users as resources.

The danger of social networking as a tool of Enframing has been expressed in other, stronger ways. In the essay '*Heidegger on the Connection between Nihilism, Art, Technology, and Politics*', Hubert Dreyfus pushes the concept of standing-reserve to the extent that objectivism and subjectivism are subsumed into a schema that culminates to an imminent nihilism. Dictated through a purely technological schema, the world described by Dreyfus is one in which life functions with methodical efficiency solely for the sake of technological advancement.[14] If Dreyfus' assumptions are correct, then the Enframing of social networking and being-in-cyberspace in general can be seen as a driving force for nihilism and the eventual rejection of all interpersonal communication as a meaningful enterprise; instead, it is considered as a perfunctory and basic tool for advancement. The idea of a schema is both interesting and important; it warns that social networking, as a modern technology, will not just enframe the user, but also affect the user at a fundamental psychological level. Dreyfus goes further than the pessimism of his original claim. 'In this technological perspective, ultimate goals like serving God, society, our fellows, or even ourselves no longer make sense to us. Human beings on this view, become as resource to be used - but more important, to be enhanced - like any other'.[15] Dreyfus' ultimate conclusion stresses Heidegger's fears in a global sense; when applying this to social networking, Dreyfus' conclusion would mean that the technology is Enframing users to become a resource, as has already been stressed, but also to be maximally used and enhanced for use. In that way, those that can be used most will be the most pre-enhanced, and hence have more value from the perspective of standing reserve; users who cannot be maximally exploited as a resource will lose value. The Enframing of users as standing reserve may

therefore lead to a change in the criteria of evaluation of the value of close relationships and associations; those persons that can be used and enhanced have the most value, as they are providing the maximum resourcefulness. Traditional markers for building relationships - such as proximity, interests, empathy, kinship - may be rejected for online presence and the ability to provide resources, a fundamental change in the way beings interact and connect with one another. With no ultimate goal beyond treating others as a resource, the duration of and strength of the connection between beings becomes altered; there is no requirement for the goal of a long-term communicative relationship when there are millions of other users enframed as resources to be used like any other users. Hence, if social networking has the status of modern technology as Dreyfus would envisage, then the damage resulting from it would be, from a phenomenological perspective, catastrophic.

The conclusions to be drawn from this discussion are stark and potentially alarming; social networking is a modern technology that has the property of Enframing, changing in this case users themselves into standing reserve; a resource to be used by other users of social networks, and therefore a degeneration of being into a resource for the use and entertainment of others. Whereas Heidegger allows for a realignment in the orientation between beings and technology through artistic response, it is unclear how this may be possible in social networks; there exists the possibility of such response, but it is at the behest of the individual user to harness and utilise such opportunity, and the Enframing of users as resource promotes the ease and maximum utility of usage of social networking, not the effort and time that such a response would require. A vicious circle is created; the ease of communication promotes superficiality and inhibited communication, but if this is challenged then it is the ease of use that also prevents users from expressing themselves, and therefore disclosing being, in a manner that would allow authentic disclosure.

Notes

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[2] Ibid., p. 4.
[3] Ibid., p. 4.
[4] Ibid., p. 5.
[5] Ibid., p. 5.
[6] Ibid., p. 11.
[7] Ibid., p. 12.

[8] Ibid., p. 4.
[9] M Heidegger, *Bremen und Freiburger Vorträge,* p. 30.
[10] M Heidegger, 'The Question Concerning Technology', from *The Question Concerning Technology and Other Essays*, W Lovitt (trans), Harper and Row Publishers, New York, 1977, p. 16.
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[14] H L Dreyfus, 'Heidegger on the Connection between Nihilism, Art, Technology, and Politics', from *The Cambridge Companion to Heidegger*, Ch Guignon (ed), Cambridge University Press, Cambridge, 1993, p. 307.
[15] Ibid., p. 307.

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Cyber-Communities in Their Quest for Free Culture: User-Generated Content Portals in the Anthropological Perspective

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Abstract
The article concerns the problem of boundaries of cyber-freedom and cyber-democracy. User-generated content portals, wikiprojects and virtual worlds depend on the will of users to re-define the meanings and - on limitations of economy of the Web 2.0. Social-networking may be the regarded as the embodiment of cyber-utopia of peaceful cooperation of humankind but social creation and transmission of knowledge is invisibly shaped by new economy - wikinomics and telecoms. Authors analyse the most important ideas of cyber-communities as free culture, wiki and open source. They explicit the fundamental elements of wiki-identity and of folksonomic order of knowledge. The Web 2.0 is not only the marketing trend controlling societies but also the tool of social pressure of bottom-to-top character. The openness for user demands stemming from economic reasons changes the authorities and companies as well. The change is culturally significant as it creates the new order of society and new discourse of knowledge and power. However, there appear new threats as privacy loss or control and electronic vandalism. The paper shows new areas of anthropological research as cyber-ritual analysis and research on online communities and their cyber mythologies.

Key Words: Web Anthropology, Cyber-Rituals, Social Networking, Wikipedia, Web 2.0, Folksonomy, Wikinomics, Cyber Mythology.

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The freedom of culture is the main purpose consolidating the communities of net activists. In the 90s the idea was related to the cyberpunk movement, based on the cultural trend of being technically skilled at using new technologies, seen as rather mysterious at the time. This trend was undoubtedly a sort of postmodern and pro-technological gnosis.[1] The language used for research on the subject of the Net could not keep up with the rapid developments of technical connections and emerging cyber-communities. The many theories of cyber studies generated metaphors and terms that increased mysteriousness of the new media and demonised the Net as a mystic reality. The state of knowledge in those days can be described, in narratological terms, as a paradoxically scientific science-fiction. This

gnostic-cum-philosophical approach can be seen as the necessary first step in the process of getting accustomed to new technologies that paved the way for the contemporary sociological, anthropological, ethnographic and psychological research. According to Derrick de Kerckhove, new technologies can only become popular when the society is ready to accept them, which happens through a process of gradual rationalising of the communication environment.[2] The knowledge of this environment plays an absolutely critical role in determining the cultural development. New communication competences and acquaintance with technology have become an inseparable element of social life due to, among others, the cyberpunk avant guard movement, members of the Open Source movement, pioneers of methods of alternative content distribution and privacy protection on the Net.

The turning point in the development of the Net was undoubtedly September 11, 2001. That was when a certain paradigm of the Net broke down, the paradigm positing the Net as an anarchistic environment exerting further anarchistic influence on the whole of culture. The Net gained, in a way, the maturity. Today, the freedom on the Net is usually seen in more down-to-earth terms: as new licences, new copyrights and new ways to generate content.[3] Questions of privacy, Big Brother, control over citizens, the dangers of Echelon or Carnivore systems have lost much of their popularity on the level of social Net discourse. Internet anonymisation of communication has been replaced by the now fashionable tendency, connected with Web 2.0 marketing, to reveal even deeper layers of one's identity.[4] It is not only the question of personal data, but rather of narrations directly connected with privacy, which create nowadays vast space of narratives on everydayness of practically all cultures. This global self-recording of micronarration is undoubtedly an unprecedented phenomenon in the history of culture. The paranoid registering of everything and everywhere and the subsequent presentation of these records as a form of creation has led to the development of a new social communication paradigm, personal web publishing. Blogosphere has become the most important space for symbolic exchange characteristic for information society. Social networking portals and grassroots journalism enable re-definition of communication strategies by generating new rules of transmission of the knowledge in the society. It is important to notice its economic dimension.[5] It is becoming more and more popular to use procedures of informal communication for business purposes. Known as wikinomics, this phenomenon largely questions the 'informality' of the Internet self-recording.

The set of socio-cultural phenomena and processes known as Web 2.0, although a marketing slogan appealing even to dot-com pessimists, has nevertheless clearly altered the contemporary understanding of the Internet as well as refreshed many freedom-related ideas connected with the cyberculture.[6] These phenomena have led to the spread of the idea of

democratisation of the communication, but have also given a new meaning to such basic cultural terms as 'knowledge,' 'wisdom,' 'authority,' 'trust' and 'social transmission of meaning.' What can be seen here is the process of re-evaluation within the discourse of knowledge and power - blogosphere and grassroots journalism, often exposing political or media propaganda, have undermined traditional strategies of constructing and distributing meaning in the society.[7] Wiki technology has given rise to decentralised social networks, used, for instance, in gathering knowledge on a given subject or creating concepts and documentation for a group of users.

It is to be remembered, however, that these processes take place within the limits of social communication delineated by technical possibilities, economic capacity and the policy of the leading telecoms. User-generated content portals do not operate outside the market, but within its framework. Personalised services are of interest not only to their users, they also help create their consumer profile accessible to service providers. The consumer may be consciously involved in the process of constructing such a profile, as is the case with the portals such as Hostelworld that allow users efficiently to search particular services, assess them based on other users' opinions, and, finally, buy any items selected. However, users might not be aware of their involvement in the services market, as is the case with the communication within Second Life, where actual consumption, social interaction and the creation of virtual world may permeate each other.

Web 2.0 is based first and foremost on the Net users' desire to participate in a broad data exchange, information sharing and global self-presentation. It is something more than just a fashion for generating content with a private or personal aspect, nor is it not only a form of global exhibitionism and escaping into the virtual. What matters most here is the social participation in activities allowing community-based creation of content, redefinition of meanings and exchange of knowledge. It is based on the belief in the possibility of positive cooperation among internauts, a form of social constructivism. The key example of activity based on constructivist consciousness is Wikipedia.[8] This way of constructing knowledge might be frown upon by conservative-minded intellectuals. Wikipedia, however, is different from social networking portals where the knowledge is generated based on folksonomic rules.

Wikiknowledge is a sort of compromise between folksonomy and taxonomy. The Encyclopaedia is built in an open, but not anarchistic, way. The social rules in operation here to a certain extent put an order to the space of freedom. It is the 'neutral point of view' that becomes the reference point, imposing some moderation in expressing one's opinions while retaining the interpretative character of contributions. The rules governing the submission of contributions to Wikipedia concern the use of content management system programming code and formatting these contributions according to the

existing editing principles. First and foremost, however, these rules rely on the Wikipedia social order, a peculiar libertarian social stratification imposing a hierarchical responsibility for content. And so lines of responsibility go from administrators of particular language versions, to editors of particular sections who are in charge of any changes introduced, regular editors, authors of codification solutions to ambassadors of wikiorder. An average user does not have to be aware of this hierarchy. Intellectuals cannot accept the wikiorder, seeing it as an infringement of the traditional authority of the knowledge distributed in the educational and publishing systems. Wikipedia, however, is not the everyday, nor is it unprofessional knowledge. Although it appears to be unstable and chaotic, wikiknowledge is nevertheless referential.

This is achieved through strategies such as community-based setting of rules for entry creation, dialog-based process of content creation, open voting over the form of definitions and social monitoring of any latest changes to the content of entries. Thanks to constant social control any breaches of the referential rule, called vandalism, are in most cases detected. Thus the system characterised by the fluency of creative process bears some features of stability of the knowledge corpus. This feature is often overlooked by the critics of the new approach to encyclopaedia.

It is to be noticed as well that the wiki technology has come into its own in corporate environments where there is a need to create knowledge bases for complex procedures whose administering touches 'frontiers of complexity.'[9] These applications show the full potential of wiki to generate knowledge, created solely by a closed team of specialists. They also show the hierarchical character of this method of knowledge creation, a direct consequence of corporate culture and its ideological assumptions. Wiki is first and foremost about the technology, while at the same time forming an element of social order. Connective content generation and open character of modification, while retaining the control of the group of controllers-administrators, allows nevertheless to stop the movement of meaning on the level acceptable by the rules of reference, coherence and communicativeness. The complexity of opinions expressed within wiki and multifacetedness are only appearances. The organism of Wikipedia as a connective intelligence seeks to reach simplicity. Here is the right place to quote John Maeda, the greatest theoretician of simplicity:

> Simplicity and complexity need each other. The more complexity there is in the market, the more that something simpler stands out. And because technology will only continue to grow in complexity, there is a clear economic benefit to adopting a strategy of simplicity that will help your product apart. That said establishing a feeling of

> simplicity in design requires making complexity consciously available in some explicit form. This relationship can be manifest in either the same object or experience or in contrast with other offerings in the same category [...][10]

The experience of Wikipedia is precedence in human history and in the history of human effort to construct knowledge. The free encyclopaedia is the fastest source of information about the digital environment as an extension of the human being. It reacts instantly to any emerging technological change, which is way beyond the scope of any traditionally constructed knowledge base. It is to be noted as well that the source of this knowledge are often the authors of technological solutions themselves including members of the Open Source movement. This is a sort of feedback, whereby solutions described and theorised upon are the ones making up the space of contemporary ecology of the digital environment, where, in turn, new media-based cognitive procedures are being developed.

It is worth noticing that Wikipedia revitalises the traditional notion of studying as an independent research on a given subject.[11] Such re-evaluation of amateur efforts to compile knowledge is undoubtedly connected with MacDonaldisation and commercialisation of higher education institutions as well as the decline of traditional authorities. In the digital world the adequacy of knowledge is related more to its instantness and its social transmission (popularity) than to it being a priori acknowledged as valuable by the Academy. And so Wikipedia is a space of knowledge that goes beyond the everydayness as defined by sociology or the anthropological local knowledge.

The folksonomic knowledge, produced in user-generated content websites is of a slightly different character. Social tagging, social bookmarking and social networking are all strategies of ordering information, strategies at the same time subjective and public in their character. They allow each user to create their own media profile, their private self-presentation environments or their own area of interest (e.g. my little world, a personal vision of the world implemented in the processes of social web browsing). Folksonomy is about imparting information with a subjective order of meaning (tagging), multi-dimensional categorisation of concepts.[12] Dispersion and voluntaristic character of folksonomy constructs a highly attractive model of knowledge compared to the traditional model of taxonomy. Folksonomy is undoubtedly a picture of the everydayness mediated through the Net.

What can be seen here is a change of paradigm in the area of gathering knowledge: objectivising procedures being questioned as a result of human knowledge getting entangled in all the competing discourses, an

increasingly important role is now played by the subjective factor. The subjective factor, emphasising the pluralism of categorising is now being more and more appreciated. Folksonomy can also be seen as a 'social monitoring' phenomenon, where, for instance, digital traces of friends activity are searched with the use of personalised information channels that are conducive to personality leaks. This is a slow and fragmentary process, yet it allows the identity profile of users to be compiled in a great detail without them knowing.

Identity 2.0 is an entity emerging from the limited choices designed by programmers. This is a 'choice from the menu,' according to the interpretation of the interface user's activities presented by Lev Manovich.[13] Consequently, the user's identity is designed as an element of the interface and the data base. The Internet being a part of our culture for almost two decades now, technical skills have become commonplace in whole societies and complicated user interfaces requiring specialist knowledge on the part of the user have been replaced by user-friendly graphic interfaces and the universal networking of information. This has been possible thanks to the humanisation of the computer and computerisation of the user's identity. What once was 'secret knowledge' has now become common knowledge.

And thus cyberspace mythology has evolved: the mythology of the programmer creating freed tools, characterising Web 1.0, in Web 2.0 has been replaced by the mythology of the user who creates, or releases, symbolic content.[14] Also, Web 2.0 brings a re-definition of communication applications of the Internet. The medium leads to the emergence of online communities as well as social networks of different types. Web 2.0 involves a communication mode characterised by two main features: rituality and pragmaticism. Wikipedia and other wiki implementations as well as social networks respond to the needs for information and cooperation, e.g. social creation of knowledge base (Wikipedia, Wikitravel) or business networks (LinkedIn, GoldenLine).

The ritual goal of communication is extremely important. True, the ritual has often been seen as valueless 'communication without information' by communication theorists (proponents of the transmission model).[15] However, anthropological research proves that the ritual performs an important function of supporting social relations and consolidating culture. The social space of Web 2.0 has developed rituals that allow users to get accustomed to new technologies as well as re-define the place of human being in culture. They offer a possibility to participate in social games and to create the patterns of culture. Social networking websites are centres around which New rituals are constructed. Building the profile or avatar (e.g. in Second Life) can be regarded as a self-presenting and self-defining ritual, selecting a particular skin for the avatar or a photo for blog may be seen as an element of ritual whereby the user adjusts to social norms and aesthetic

models. In this perspective, collecting friends in social networking portals such as FaceBook, Classmates or in the Polish cultural phenomenon of 'Our-class' (Nasza-klasa.pl) is a sort of ritual of confirming one's social status through artificially increasing the size of one's social network. Running a blog, photoblog, microblog, moblog, audioblog or videoblog is also a ritual confirmation of one's value as well as an expression of willingness to be part of the space of modernity and technological skill. Many rites connected with embellishing one's virtual body or its destruction are to be seen here, too, including the ritual murder of avatars (Second Life). Another important ritual linking the online and offline reality is the ritual of digital mourning, most typically accompanying offline event and manifesting itself in blogs. It is possible to find more phenomena of ritual type on the Net, the ones mentioned above being some of the most prominent examples for Web 2.0.

Concluding, it is worth noticing what is - from the anthropological point of view - a puzzling shift in the understanding of the Net that has taken place over the last two decades. It can be observed that metaphors used to think about the Net and to describe it have been changed. The metaphor of the Net as a rhizome has been replaced by the metaphor of the Net as a map of the underground. It can be regarded as the progressive rationalising of operational metaphors used to describe crucial cultural terms, in this case both the medium, the technology and the communication environment. Thinking about the Internet is linked to thinking about cognitive space. The metaphor of rhizome referred to the tradition of understanding unimaginable notions such as Cosmos, Chaos or God. As it turned out, however, the practice of communication led to the simplification of the cognitive model and metaphors of closed systems proved more functional. It is not possible to describe an infinite environment while at the same time experiencing it on a daily basis as finite in the form of search results or a definite number of acts of communication. It gives a framework to the universe. The communication aspect has taken precedence over the metaphysics of the Net. It is this communication aspect that sets the rules of the new economy (wikinomics), new taxonomy (folksonomy) and social re-stratification. It is communication, both in its pragmatic and ritual aspect, that generates the deepest cultural meanings of Web 2.0 and delineates the future of the networked society.

Notes

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Character as Virtual Reality Experiment in Identity

Lynda Williams

Abstract
The character of Amel, in the science fiction novel The Courtesan Prince, is an enactment of the author's struggle to understand identity as it relates to gender, human nature and medically-induced changes in personality. As the author of the novel, I draw on my life experience as a primary source, with reference to the works which influenced me, in order to establish the targets of my interest and show why identity is crucial to my motivation as a writer. How Amel embodies both my hopes and fears for humanity is captured by the concept of 'naked virtuality', which I use to translate my real life concerns into the virtual world of science fiction narrative. This technique is explored in the greatest detail with regard to isolating the concept of sexual abuse from assumptions about gender, but also touches on questions about human nature and constancy of identity despite a traumatic personality adjustment through medical intervention. In conclusion, I suggest future applications of naked virtuality in other contexts.

Key Words: Identity, Characterization, Science Fiction, Fantasy, Gender, Virtualization, Authorship.

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1. Introduction

This is the story of how one novelist used a beloved character to run a thought experiment about identity. I am the author, Lynda Williams, and the character is Amel, in *The Courtesan Prince*, book number one in the science fiction series called the *Okal Rel Saga*.[1]

Arising out of my discoveries as a novelist, is an idea about the form and function of virtualization in all media which I summarize with the label of 'naked virtuality': a process which may have the power to transcend its literary origins to do work in other spheres such as instructional design.

2. Identity as the Arena of Meaning

I grew up in a small city in the northern interior of British Columbia. My father's family moved to Prince George around 1905, at a time when hitching posts for horses were still in use in the downtown area. I did not understand the distinction, in my childhood, between aristocracy and the professional class my mother came from, in Britian, who were able to afford servants, so I viewed myself as a natural cut above neighborhood friends,

referred to by my grandmother as 'common children'. My mother stocked our home with riches like the Great Books of the Western World and the complete works of Shakespeare on LPs. Of the Great Books, the *Meditations of Marcus Aurelius* and bits of *Plato's Republic* stood out for me as foundations for my preoccupation with how to balance power, great or small, with sound moral judgment, while from Shakespeare I gained a lively appreciation for how to dramatize large issues through the escapades of single individuals.

As an adolescent, steeped in the feminist doctrine promoted by 'Why Not?' posters in my school, I felt inspired by the mission of the *Starship Enterprise*, imbibed from television.[2] *Waiting for Godot*, by Samuel Beckett, rocked my world when I first experienced it at the Prince George Playhouse, but I quickly identified it as an enemy.[3] Literature, for me, was about making meaning not undermining it.

Perhaps I knew too much about negativity already, due my father's lifelong battle with depression and my well-loved grandmother's slide into senility. Clearly people could, and did, change. My mother, on the other hand, was a relentless optimist. Her unconditional love set the benchmark, for me, of incorruptible constancy of identity. Wanting to emulate my mother, as a caregiver, I completed a thousand hours as a volunteer counselor with the Prince George Crisis Centre in my teenage years. I followed up by reading books on mental illness, war crimes, poverty and other extremes of human experience, including books about the historical Dracula, Vlad Tepes, and the Marquis de Sade.[4]

The more I learned the greater my craving became to ground my moral instincts in a way that made more sense to me than my father's literal belief in the bible. I flirted with atheism until rejecting it as a negation rather than a positive statement about anything. I was prepared to believe God was nothing but a byproduct of our mental confusion, an idea first encountered in *Janus: a Summing Up* by Arthur Koestler, but not to deny whatever instinct in me rebelled at violations of basic decency.[5] But my own sense of logic made it hard to find intellectual support to defend me from the sort of amoral approach to goal seeking I first encountered in *The Prince* by Nicolò Machiavelli and continue to reject in its modern reality TV incarnations exemplified by shows like *The Apprentice* starring Donald Trump.[6] The Star Trek Universe became my *de facto* comfort zone, which appeared to be based on the notion advances in science would empower mankind civilize the universe. But this hope was never entirely satisfying given the ample evidence of the destructive potential of science symbolized for me, as a child of the Cold War, by the movie *Dr. Strangelove*.[7]

My quest for moral comfort led to identity via the unlikely vehicle of evolutionary psychology, and other secular explanations for why humans are what we are. Two books I remember, particularly, are Jared Diamond's

Guns, Germs and Steel, and Barbara Ehrenreich's *Blood Rites*.[8] [9] But he the idea that our behavior has been shaped by the game of life confronted my moral sense with the unpalatable facts laid out by Robin Baker in *Sperm Wars*, juxtaposing rape and responsible parenting as nothing more or less than two competing strategies for success in the breeding game.[10]

Of course, moral instincts themselves are products of the survival game and as Francis Fukuyama argues so convincingly in his book *Trust: The Social Virtues and the Creation of Prosperity*, amoral behavior is parasitic on society. Morality is the weapon of the good majority against the parasitic cheaters who impair everyone's chance for the good life.[11]

How identity is key to morality came to me during a performance of the musical play *Jacques Brel is Alive and Well and Living in Paris*. Contemplating the great unknown of death, a boy and girl sing to each other: 'But whatever is behind that door, there is nothing much to do. Angel or devil, I don't care, for in front of that door there is you.'[12]

Morality lies in our ability to need and value others. And our well being as a species depends on those with a moral sense controlling amoral individuals.

How then, dare identity be changeable and fragile? This is the problem I created Amel to explore by imbuing him, as a virtual reality experiment.. If I could get Amel through all I inflicted on him, and still believe in him as a character, it would mean something to me and also to my readers: a detail I find all important since one of the strongest motives for my art is the hope it will support other people of good character in the same war of ideology I waded through to reach my conclusions.

3. Amel and Identity in *The Courtesan Prince*

Amel, in *The Courtesan Prince*, is the archetypal character of high rank raised as a commoner with a couple identity-challenging variations. First, in keeping with my early belief in science as the means to improve mankind, his high status stems from being a product of genetic engineering, know as a Sevolite in the *Okal Rel* Universe. His identity as a human being is therefore challenged because he possesses traits that did not evolve through natural selection. Second, although a male lead in an adventure story, he is encumbered by typically female traits of character such as beauty, goodness, and his role as a sex abuse victim. Finally, despite a more than normally robust sense of identity and purpose, referred to as 'grip' in the Okal Rel Universe, Amel is mentally re-programmed more than once in ways which alter his behavior. The challenge here is whether he remains the same person in his interaction with others, despite the constraints imposed on him.

The odd nature of Amel's psychological profile is exposed to scrutiny by the advanced brain science of his captors, the Reetions. In the

following revealing quote, it is being explained to his lover, Ann, who has rejected him for the wrong reasons.

> Her hand shifted, altering the image. 'The emotional integration, here, is more typically female than male, but that's shading into general personality.'[13]

In her book *A New Species: Gender and Science in Science Fiction,* Robin Roberts points out how female authors of speculative fiction, from Mary Shelly in Frankenstein, to Ursula Le Guin, exploit the plasticity of the genre to allow male (or alien) characters to represent the female condition. She calls such non-female characters codedly-female.[14]

I made Amel male because I wanted to focus on the rights and wrongs of his experiences as a 'naked virtuality', by which I mean a topic separated from its usual associations and presented in circumstances designed to refocus attention on what really matters. Amel is victimized by both male and female characters at different points in the series to also defamiliarize the other side of the moral equation. I discovered an odd reluctance to condemn amoral women best described by Patricia Pearson in her book *When She was Bad: Violent Women and the Myth of Innocence*.[15] The gender of the victim shouldn't matter, but it always seemed to, hence the need to destabilize assumptions. I have written, elsewhere, about my reciprocal treatment of female Sevolites of the Vrellish variety, who are based on male-only progenitors.[16]

Medical interventions in Amel's identity are many but I will deal, here, only with the visitor probe incident in which a scientist named Lurol alters his psychology through advanced brain science. Her intent is to rebalance his psychology in his own interest, but she winds up heightening his potential for self-sacrifice, instead. She is able to do this, despite cultural safeguards, because Amel isn't recognized as human, as illustrated in the following quote:

> 'Interrogation!' exclaimed Lurol, dismayed.
> 'Our definition of humanity is based on the human genome,' said Milap. And Von's DNA isn't human. It isn't in our catalog![17]

Success for Amel, as a character, lies in the many ways in which he remains consistent across all transitions, allowing him to sustain relationships with others.

His sweet nature, coupled with his history of bad experiences, keeps him courteous but wary in negotiations with people who have power over

him. Here he is, conniving to obtain the book he wants from an ailing patron, when he is Von, the courtesan:

> 'Such cynicism,' she said, 'in one so young! I think I will give you the book, just to prove that nice things can happen.' She paused, studying her attractive bookcase of doggerel. Although it would break up the set to make it that one.
>
> He pounced. 'Perhaps something less valuable?'[18]

And this is Amel in the process of having his new, exalted status thrust upon him:

> 'Nobody said,' she muttered under her breath, 'that babysitting Souls of Light set loose in a nasty universe was going to be easy work.'
>
> He trotted to keep up with her brisk pace. 'You're angry with me,' he fretted, forgetting to speak down to her in his contriteness. He didn't know what he had done, but he was sure it was a mistake.[19]

With respect to Amel's essential maleness despite some codedly-female aspects to his character, I appeal to the book's female characters. The following passage, in which Ann refers to him as Beauty, shows him bristling over a male-male conflict, and his instinctively sexual interest in women at a physical level.

> One of the guards made some gruff remark in Gelack. Beauty's gentle intelligence turned peeved and sullen in mild measures, telling her that he had been insulted, which seemed incongruous. Wasn't he the one in power?
>
> Beauty shook it off the minute the door closed on the source of irritation, leaving them alone. His gray eyes spoke a universal language - he liked her.
>
> *Well, he likes my body*, Ann forced herself to be objective.[20]

And here is Amel dealing with mixed feelings about the robustly sexual Vretla Vrel, one of his clients while he is still a commoner, which illustrates

how the conflict between his romantic sensibilities and sex drive work to help define him.

> 'What do Demish women do with you, Von?' Vretla asked him. 'Dress you up like one of their dolls?' She stopped and turned him around, giving him a look that communicated directly with his groin, without checking with his brain on the way down.
>
> Von swallowed. 'Demish women ask me about Vrellish women, too, you know,' he told her a bit huskily. 'Would you want me to answer their questions?'
>
> 'I wouldn't care,' she said. Three hard fingers snagged firmly under the top band of his jock strap.
>
> *Not good*, he thought.
> She pushed him up against a wall.
> *Oh come on Vretla!* he thought, cursing his body for its indiscretions. *Not in the hall!*
>
> She jerked down his strap, proving what she knew, and grinned at him. 'Lie down!'
>
> *I am going to give up Vrellish women*, he promised himself, with the good intentions of all thrill seekers at the crest of the next dangerous plunge. *Before I turn twenty*.[21]

Even when half-mad due to Lurol's meddling, Amel consistently demonstrates a whole complex of established personality traits such as compassion even for the enemy; a sensualist's love of luxury and aversion to discomfort; an idealized passion for literature; propensity for hero-worship towards abstract entities; and a knack for living in the moment. His identity, and therefore his ability to maintain relationships, is sustained through many small consistencies in the face of major disruptions.

4. Naked Virtuality

As author John Barth puts it, in his essay 'Virtuality':

> The virtual worlds of literature are unencumbered by literality. It is both their great limitation and their indispensable virtue that their virtuality is virtual; that they

> exist not in our nerve-endings but in the pure hyperspace of our imaginations.[22]

From the point of view of an expert reader, in other words, there is nothing new about the plethora of options for virtualization in the world today except their greater accessibility to the imaginatively disabled. No shame attaches, therefore, to learning new tricks from old art forms.

Both my graduate degrees relate to information technology, and even my fictional endeavors include digital manifestations on the web. The critical tone of my observation arises solely from frustration with the mania for all things digital in modern culture where it appears to have dethroned complexity of thought. But as someone who has long spanned both worlds, it seems to me that the medium is no longer the message despite the influential proselytizing of this point of view by Marshall McLuhan.[23]

Instead, stories arising in one media play out in a plethora of others retaining their identity to a greater or lesser extent depending on which elements in the original are extracted as the naked virtuality around which the new work is rebuilt.

The concept of naked virtuality, as it arises from Amel's story, is a tool for getting at what to carry forward into any kind of virtualization, and what to purposefully obfuscate or leave behind. I evolved the idea as a mental trick for shedding light on old problem in new ways as a novelist, but because a novel is a kind of virtuality, I plan to explore its potential as a kind of Occam's razor for simplifying complex challenges in other fields: such as eliminating distracters that hinder absorption of concepts in instructional situations. And, of course, I plan to keep translating my real life concerns into the *Okal Rel* Universe by passing them through a stage of naked virtuality.

Notes

[1] L Williams, *The Courtesan Prince*, Edge Science Fiction and Fantasy Publishing, Calgary, AB, 2005.

[2] G Roddenberry, (creator/producer), *Start Trek*, Aired from September 8, 1966 through September 2, 1969 [Television series], NBC.

[3] S Beckett, *Waiting for Godot*, 1953.

[4] R Burton, *Book of Thousand and One Nights*. I cannot be certain of the edition I possessed in my late teens or possibly early twenties, but I remember it was an uncut version with nothing but a preamble and footnotes to help me with the steamy, matter-of-fact misogyny I found in it, rolled up into powerful old stories.

[5] A Koestler, *Janus: A Summing Up,* Random House, 1978, p. 96.

[6] N Machiavelli, *The Prince*, Scholar Press, 1969. Once again, I cannot be certain which edition of this book I found lying around the house, and do not claim to have read it thoroughly in my youth, only to have grasped the key idea that the ends were supposed to justify the means when seeking power.
[7] S Kubrick, *Dr. Strangelove or: How I Learned to Stop Worrying and Love the Bomb,* 1964. Based on a novel by Peter George.
[8] J M Diamond, *Guns, Germs and Steel*, W. W. Norton & Company, 1997.
[9] B Ehrenreich, *Blood Rites: Origins and History of the Passions of War*, Virago, 1998.
[10] R Baker, *Sperm Wars: The Science of Sex*, 2005 reprint of 1996 edition.
[11] F Fukuyama, *Trust: The Social Virtues and the Creation of Prosperity*, Simon & Schuster, 1995.
[12] J Brel, *Jacques Brel is Alive and Well and Living in Paris*. I saw this play while still living at home, in my teens or early twenties, but the impression made by the song about death and companionship stuck with me as a keystone of my thinking.
[13] Williams, op. cit., p. 170.
[14] R Roberts, *A New Species: Gender and Science in Science Fiction*, University of Illinois Press, 1993.
[15] P Pearson, *When She was Bad: Violent Women and the Myth of Innocence,* Random House of Canada, 1997.
[16] L Williams, 'Vrellish Evolutionary Biology', presented on the web to Science Fiction and Organization Conference, 15 Sept 1999, viewed 6 June 2008, <http://www.okalrel.org/saga/reference/essays/vrellish.html>.
[17] Williams, op. cit., *The Courtesan Prince,* p. 234.
[18] ibid., p. 46.
[19] ibid., p. 390.
[20] ibid., p. 81.
[21] ibid., p. 36.
[22] J Barth, 'Virtuality'. *Johns Hopkins Magazine Electronic Edition, Special Issue: Straws in the Wind*, Sept 1994, viewed 9 June 2008, <http://www.jhu.edu/~jhumag/994web/culture1.html>.
[23]M McLuhan <http://www.marshallmcluhan.com/main.html>.

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