Assignment 2

Mapping Cyberspace: Thematic Essay

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Finding Cyberspace

Everyone wants a piece of cyberspace, because there is so much happening there, so much potential. But where, and even what, *is* cyberspace? Do we even understand what we are dealing with? Would we even know if we had a piece of it already, considering that we don't really know what it is? This paper will look at the contemporary perception of cyberspace and attempt to outline the elements which have lead to this understanding. It will briefly discuss the Internet and its relation to cyberspace, and also consider some other, possibly more accurate, definitions of cyberspace. To build up a definition of cyberspace, we need to consider some of the major influences on our understanding of what it is and where it came from.

The most obvious contribution to a definition of cyberspace is that of William Gibson's defining work, *Neuromancer* (1984), which first offered the term, and a description of what this 'cyberspace' was.

> "A consensual hallucination experienced daily by billions of legitimate operators, in every nation, by children being taught mathematical concepts... A graphical representation of data abstracted from the banks of every computer in the human system. Unthinkable complexity. Lines of light ranged in the nonspace of the mind, clusters and constellations of data. Like city lights, receding."

Gibson's definition conjures obvious images of what we now call virtual reality, of immersive information worlds through which our 'character' or 'avatar' navigates. This perspective is supported by popular science fiction movies such as *Hackers*, *The Lawnmower Man* and *The Matrix Trilogy*. In all of these movies, the interactive medium used for transactions and communications is presented as a far more immersive environment than is currently available. This idea of a fully-immersive virtual reality is accepted as an inevitable backdrop for future computer interactions, and by most, is seen as the pinnacle of the definition of 'cyberspace'. Since this environment is not actually available today however, practical definitions of today's cyberspace are required.

"[T]he various information resources that are available through computer networks and the Internet" says GetNetWise (n.d.) of cyberspace, offering what appears to be the commonly-accepted definition of the current iteration of cyberspace. Within this definition, we are not dealing with three-dimensional representations of information, or even "clusters and constellations of data" (Gibson, 1984), we are dealing with mainly text-based communications, supplemented with mostly still images. Interaction is limited to request-response, a click here, a drag there, a document-based world. This cyberspace is hardly the Matrix described in the movies of the same name, and yet it is accepted as a precursor to that inevitable, immersive, virtual world. So what has tied these two seemingly unrelated concepts together? The Internet and Virtual Reality. Both computer-based manifestations, both constructed environments which humans have built entirely for themselves, to suit their own purposes.

Computers, and especially the Internet, are presented by mainstream media as places that miracles happen. The entire process of computer mediated communications is portrayed as something of a mystery, where one person acts in one location in a certain way, and amazingly, another person, in an entirely different place, can view the results of those actions and even act in return to create a complete interaction of some sort. This mystery and intrigue has masked the technical level which accounts for this miracle in terms of bits and bytes, being split and sent from one end of a communication, moving around a decentralized network to be reconstructed at the other end and presented to another party according to rigid rules of data presentation. With the mystery of this transaction in tact however, we have been lead to believe that anything is possible on the Internet, just give it time. They said that we'd be able to communicate with people all around the world for the cost of a local phone call, and although most of us do it using text rather than speech, it happens all over the globe today. They told us that we'd be shopping on the Internet, and along came eBay (http://www.ebay.com/) and Amazon (http://www.amazon.com/) to give us just that. They told us that we'd interact in completely three-dimensional environments which reacted dynamically to our actions… and yet e-mail continues to be the main use of the Internet (Nielsen//NetRatings, 2004).

For the purposes of discussion, let's take today's text-based Internet as being at least the core of our subject of analysis. This environment has grown over the years, being molded slowly by our intentions, technologies and desires to communicate with each other as

simply as possible. Growing from the very first networked computer systems, personal communication became possibly the main driving force in the creation of new and improved technologies and virtual environments on the Internet. Personal communications drove the original development of the Internet, hi-jacking it from its original goal of creating a fail-safe control system in the event of nuclear war, and turning it into a network ideal for supporting distributed communications such as email and mailing lists (See more in Chapter 7 of *Netizens: An Anthology*, by Ronda and Michael Hauben). There can really only be one 'internet', since all networks which can be connected together can be said to be a part of that global internet. Perhaps because of this reason, we pin our hopes of an immersive cyberspace on the Internet that we know today.

What of the mobile phones we use daily? Or of the games played on computers for hours on end, linked up with other players around the world? Are these a part of this cyberspace we imagine ourselves as creating? These indirectly connected virtual worlds are given less credit than they are due in their alteration of our perception of what cyberspace is, and what it can become. Today's computer games (especially first-person shooters and role-playing games) are the closest things we have to immersive virtual reality for the masses. They allow us to step into a created world for a short time and live through the body of an artificial character. Breeze discusses the community and immersion in online gaming in *Quake-ing In My Boots* (1997). She says that participants in the Quake gaming community are immersed in their world so heavily that they physically react to events in the game world (moving to avoid projectiles) and show a sense of loyalty to their clan companions. The perception is that there is a level of reality there, even though it exists through an entirely constructed world of ogres and 'bad-guys'. And those mobile phones? They provide us with an ever-present, always-on connection to the cyber-world. They tie us to other people across the city and across the globe, while also giving us the ability to check email, look up information and generally lead an electronic existence. A team at Lancaster University in the UK found that mobiles are quickly becoming an important part of life, and that they "are likely to remain and increasingly become the one device that people are unwilling to live without" (Wakefield, 2003). Do these phones and the games we play form a part of cyberspace?

If we are accepting that today's cyberspace is "the various information resources that are available through computer networks and the Internet" (GetNetWise, n.d.), then we can

extrapolate that to include mobile phone networks, which are controlled by computers, and which are being blurred into the Internet with technologies such as Web-to-SMS (see http://www.blueskyfrog.com/) and web-based checking of MMS (Multimedia Messaging Service) messages for those with phones not equipped to handle the format (see http://www.optuszoo.com.au/). Although mobile phones are not normally thought of as part of cyberspace, perhaps this actually indicates that we don't realize we are already *living in* cyberspace. This technology has already pervaded our lives and become crucially important to many of us, yet we don't believe that it is anything 'amazing' or 'high-tech'. This is a step towards ubiquitous computing, which is a step towards living cyberspace. Mobile phones (or rather their handheld computer descendants) may well be the instrument which truly carries cyberspace into everyday life for most people.

With the Internet representing most people's current view of cyberspace, there are a number of internal elements which should be considered when attempting to define this slippery subject. Amongst the most prevalent concepts within the popular perception of the Internet (or often more accurately, the Web), are those of anonymity/flexible personas, personal power (democracy) and freedom of speech. These factors are all seen as contributing to the liberatory nature of the Internet and therefore of cyberspace. Anyone with access to the Internet can contribute to its content, and if they put their content in the right place, it is not likely to be censored or modified in any way. That content can then be viewed by any other person connected to the Internet, anywhere in the world. This freedom of speech is not available to humans in any other manner, via any other media.

Rheingold (1996) discusses democracy and the democratic potential of the Internet and related technologies (cyberspace) in *Electronic Democracy Toolkit*, where he states "[s]killfully used, new communication media can amplify the power of grassroots groups to gather critical information, organize political action, sway public opinion and guide policy-making." He talks about using the power of the Internet to communicate with others and therefore give access to more ears than are normally available to an individual (using the Internet's inherent nature of free-speech). From this, he claims that individuals can be empowered with greater democracy than through normal communicative means, which do not allow the level of many-to-many communications that the Internet does.

Since interactions in cyberspace tend not to be face to face, there is a perceived 'flexibility' in the presentation of oneself to others. This freedom theoretically affords individuals with the opportunity of presenting a constructed self, a persona which they may 'put on' when they are in cyberspace, and 'take off' again when they return to the 'real world'. Since you are only who you *tell* people you are online, people believe that they can (and perhaps should) create an alternate identity, which may or may not be the same as their offline identity, may or may not even be the same gender or race. Bruckman (1993) says "[g]ender swapping is an extreme example of a fundamental fact: the network is in the process of changing not just how we work, but how we think of ourselves – and ultimately, who we are." This flexibility and anonymity is explored by many, and has resulted in people being wary of trusting others online, perhaps being more cautious about accepting personal than they would in a face to face meeting (where a lot of those details are immediately, visibly confirmable). Cyberspace is a constructed reality, a virtual reality. Suler's *The Two Paths of Virtual Reality* (1999) talks about how constructed worlds "do not have to recreate the actual world. Instead, they can construct imaginary environments, fantasy realms where the usual laws of reality are stretched, altered, or negated." This feature is not just true of the worlds we interact within, but of the personas we interact *as.*

Today's cyberspace appears to be largely interchangeable as a term with the Internet. We should be expanding this definition however, to include any environment which is technologically constructed and either augments or replaces our 'normal' physical environment. Within this definition we would include mobile telephones, landline telephones, computer games, pagers, electronic funds transfers (where is the money?) and even television. Under this definition, we are already living in cyberspace, even though it is evolving around us daily. The perception pushed forward, largely by science fiction movies and novels, is that the cyberspace of the future will be constructed of immersive virtual reality worlds, which may or may not represent the real world. In these simulated environments, "[y]ou appear in any form you wish: animal, vegetable, or mineral. You shape-shift between persona as you please. You walk through walls, communicate telepathically, live out a scene from a movie or book" (Suler, 1999). How long it takes to arrive in this version of cyberspace is another matter entirely, and given current technology developments, it is likely to be many years away still.

The very nature of today's Internet goes against both the idea and the possibility of stringent controls on access and communications; it is built into the design of the network itself. This has been made quite clear to people from its very inception, and is likely to be key to the evolution of the Internet along the lines that it has taken. Without this inherent freedom, the Internet may have grown a lot more slowly, under greater controls, and with less individual flexibility for experimentation, expression and communication. This network now brings the expectations of freedom of speech, freedom of information, universal access and personal anonymity into the home and office, onto the desktop, into the handheld computer – into everyday life. Cyberspace is the embodiment of these ideals, and yet our very lives are inheriting these ideals, creating a lived cyberspace which is all around us. One might question what the difference between a fully-immersive virtual reality and our current, information-supplemented, television-flooded, constructed reality that we call Earth really is. The answer may be that the best definition of cyberspace is that of the here an now that we are all living.

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