Chapter Twelve in

Embodied Utopias: Gender, Social Change, and the Modern Metropolis
(publisher Routledge)

Networked Interventions: Debugging the Electronic Frontier

Christa Erickson

During the closing decade of the twentieth century, the Internet, popularly called cyberspace

and the information superhighway,[1] became *the* utopian space. In the few short years from 1995

to early 1999, roughly the time period this essay examines, its mythology bombarded American

popular culture to such a degree that non-techies became familiar with formerly obscure

technical nomenclature like www and dot-com. Promises touted by corporate advertisers,

politicians, and cyberfanatics alike were staggering: empowerment, convenience, global

democracy, wealth, communities unfettered by geography, mutable identity, and even the

erasure of gender and race. Everything was new and better in the e-world and its gold-rush

economy.

The hyperbole that has surrounded this global phenomenon has begun to ebb in the closing

moments of 2000, as I complete this essay. The Internet is now an ordinary part of life in the

U.S. and other developed nations. This assimilation of virtual spaces into the everyday requires

that we take seriously the politics of the Internet as a 'place' with real stakes. To this end, this

paper looks at the metaphors and language that surrounded the Internet's formative years. It

focuses specifically on the implications of this space as the 'electronic frontier' of popular

imagination, and also considers the idea of a 'network' as both a political and a technological

structure.

In keeping with the linked and associative structures of the Internet itself, this paper connects a series of insights suggested by several artists' Internet-related projects that address abstract cyber-utopian claims. Many artists treat the Internet as an electronic street corner and use their work to critique public discourses around it. Many were also informed by the critical public art produced in the 1980s and 1990s that attempted to engage spatial politics.[2] Just as public artists work within and against the architectural structures and materiality of the city, subverting the use of public spaces, net artists work within and against the spaces and structures established by the technological infrastructure of the virtual network. In particular, they address the politics of use. Statistics suggest a vast 'digital divide' (USNTIA 1999) between those who can and cannot participate; thus, class, race, gender, and the relationship of actual and virtual bodies are all taken up by these artists' projects.

It has not escaped these artists' critical attention that corporate capital is a fundamental part of this infrastructure. Some of the projects employ parody and humour as tactical practices, spoofing the visual conventions of commercial websites. Some projects take up the personal narratives suggested by individual homepages. Some push the bounds of what is possible with this still limited, but expanding technology. Others create mysterious interfaces, which must be explored to be understood. All of these projects exemplify a practice of writing and rewriting a specific moment.

Just as these artists borrow from urban spatial practice, I will borrow from analyses of the modern city. I suggest the 'cyberflâneuse' as my paradigmatic Internet subject and my approach as author. Although my cyberflâneuse resembles the historical 'flâneur' from the late nineteenth century, the spaces she wanders are different - as are her modes of inhabiting those spaces. Similarly, the artists I discuss operate in Internet space in a critical and subtly seditious manner, observing and reinventing it.

For Charles Baudelaire and, following him, Walter Benjamin, the 'flâneur' was the archetypal modern subject, strolling the streets of the city, surveying its contents with a mobile view (Benjamin 1968: 172-175). Contemporary scholars of the modern city, like Janet Wolff (1991), note that the male flâneur has no female equivalent (no 'flâneuse'). In the nineteenth century, women's realm was the domestic, and a female 'street walker' meant something else entirely. Women on the street might become the object of the flâneur's gaze, but the commanding anonymity of the flâneur was simply not available to them. When individuals like the writer George Sand were able to access this privilege, it was only by masquerading as men.

As with the flâneur's city, the virtual space of the Internet has its privileged travellers and its excluded populations. The term 'digital divide' has been used to describe the disparity between those who travel often and in style on the Internet and those who lack the tools and access to do so. 'Virtual class' (Kroker and Weinstein 1994) is now in common use for the privileged class of people who work online via various communications technologies. Any trip through a major airport reveals this mobile class wielding laptops, PDAs, and cellular phones. Several Internet scholars refer to themselves as flâneurs of cyberspace (Mitchell 7); the anonymity and privilege of the flâneur certainly translates to these wanderers of cyberspace. At least at first, they were - like the flâneur - largely male.

The cyberflâneuse might be a cyberspace wanderer with a purpose, adopting a set of 'tactics' for subverting cyberspace. In *The Practice of Everyday Life,* Michel de Certeau (1984) theorizes ways to transform the planned agenda of a place (*lieu,* a fixed and owned site of power), or its 'strategy', into the embodied practice of space (*espace,* space as produced by the practices of everyday life) through 'tactics'. His work focuses on the ways in which space is actually used, rather than the ways in which places were planned; he is concerned with the reader or pedestrian, rather than the writer or architect. Reading and walking become potentially subversive tools of living and engaging space: 'Everyday life invents itself by poaching in

countless ways on the property of others' (de Certeau 1984: xii). The cyberflâneuse explores the cracks in the virtual sidewalk and might plant a garden in an abandoned virtual lot, haunting the space. She engages people in virtual cafés, disrupting their virtual and bodily lives. Most of all she remembers the complex problems of the material world, rather than being seduced by the easy promise of utopian virtuality. She might even be a he. Like the flâneur, s/he might wander through spaces previously unavailable, fracturing meaning and materiality with 'her' very presence.

Negotiating Electronic 'Space'

Although there are many philosophical and theoretical reasons why one might consider the Internet a 'space', the most obvious one is simply that people treat it that way. Much as William Gibson characterized cyberspace as a 'consensual hallucination' in his seminal novel *Neuromancer* (Gibson 1984: 51), a tacit consensus has emerged to describe the Internet as a space. The language used to describe the Internet and people's interactions within it draws upon spatial metaphors: 'information superhighway', 'surfing the web', 'web address', or even 'homepage'. The very word cyberspace owes its name to the word cybernetics (and cybernaut), coined by Norbert Weiner in 1947, its roots connected to a notion of navigation from Greek origins meaning to pilot or steer. Early writing on cyberspace imagined three-dimensional representational technologies, often termed virtual reality technologies. Although VRML has emerged as a three-dimensional web display technology, most Internet navigation is still two-dimensional; this has not impeded the conception of the Internet as a space.

The physical experience of navigating the Internet through the graphical portion known as the web explains some of the spatial invocations. Despite some similarities to 'channel surfing', it differs from the way people relate to television. As when driving on a highway, people see the web through a window - a seemingly limited view. This view is, however, only a fragment of a

larger sense of space that unfolds over time. One navigates the terrain via a set of abstracted instruments that rely upon simple, easily learned bodily movements, or basic voice commands. The small-scale, two-dimensional computer screen and its minute point-and-click gestures imply sensations quite different from physical motion through a space. Yet one retains a sense of control in the ability to direct movement and extend one's exploration through time. The interplay between user and web interface bridges the spatial divide between the virtual and physical worlds. Switching from one web page to the next or one email window to the next might suggest spatial discontinuity; after all, one might be moving from a page originating in Japan to one from New York or Mexico. However, the virtual experience is more like that of montage, cutting from one context to another. The interface becomes a prosthesis, or phantom limb, and the subject an information-space wanderer.

The experience of wandering in virtual space while remaining stationary in physical space can create boundary confusions. This is the subject of *INVERTIGO* (1997), a project that I developed along with Sawad Brooks and Beth Stryker. It included a video installation in a gallery driven by a swing 'interface' that could be manipulated by users, and a corresponding website. The piece staged a literal and metaphoric swing between the physical space of the art gallery and the public space of the web to explore a confusion of presence/absence, real/virtual, and near/far. The swing acted as a physical editing device for a large video projection on suspended translucent scrims. Cinematic cuts at each swing apex evoked a sense of movement and boundary confusion that disrupted the 'swinging' participant's sense of seamless physical experience, as in the experience of wandering by jump-cuts in information space. Suggestions of the presence of someone in the other space (the physical or the virtual) passed back and forth - their physical bodies never touched, but their interactions left traces in the mechanism on 'the other side'. From the web, 'presence' in the gallery could be seen via spy-cameras mounted atop and behind the swing. It was also suggested by a number on a page, analogous to a web page counter, that increased by one with each physical swing in the gallery. In the gallery, 'web

presence' was indicated two ways: a rush of male and female bodies in the video projection and the numbered IP addresses[3] of the website visitors on the monitor behind the swing. When many people were 'visiting' the website, the visual accumulation of these numbers gave an indication of the volume of web presence.

The idea of 'connecting' with others in different geographical locations is part of the allure of the Internet. Portions of the Internet have social aspects that are part of the ways in which it is conceptualized as a space. The suggestion of 'place', where one might 'go' to meet others, came early on in the form of mediated areas like chat rooms, MUDs, and MOOs. With the proliferation of Instant Messenger services one is informed if a contact on one's predefined list of people is also 'there' - and communication can take place in 'real time'. Through the ability to design a 'profile', post an image, or create a 'homepage', people have mechanisms for presenting themselves (or the selves they choose) to others. These gathering spaces provide for both social interactions and forms of manipulation. Sandy Stone has documented some fascinating stories of such spaces with telling social implications (Stone 1995: 65-81). For some people, these interactions are an extension of the real, and the attributes of their lives appear as present as they might be in any social setting. Others use the seeming anonymity of meeting online to create a persona to act out alternate identities. Other users move between the virtual and the physical, meeting people within the ostensible safety and anonymity of online interaction but eventually deciding to take the relationship offline. It is significant to note that although corporations build some of these gathering spaces, many originate independently from within existing communities of people.

Even though we may travel 'there' every day, the virtual space of the Internet is not a place as we typically understand the word. Yet the city is still a productive spatial metaphor for the electronic network. William Mitchell, for instance, titles his book on the subject the *City of Bits: Space, Place, and the Infobahn* (Mitchell 1995). Certainly in both the physical city and on the

Internet, people meet, carry out work, gather information, shop, and sightsee, or as the case may be, site-see. Marshall McLuhan suggested that every new medium is a rearview mirror to its recent historical past (McLuhan 1964: ix); and, indeed, patterns of cities are enacted online. Many sites are slick and glossy flat facades with flashing banner advertisements, functioning like a mall or the Los Vegas strip. The Internet's notorious 'red-light' zones might be thought of as corresponding city districts, but they are more closely associated to *each other* by numerous 'links' than they are to any other 'neighbourhoods'. While structures and materials are different - bits and files versus bricks and mortar; coded information versus buildings; and links and search engines versus streets and subways - the two worlds remain linked. Industries familiar from the 'real world' are visible to the web wanderer, though their web architectures may differ dramatically from the corresponding physical space.

It is also useful to consider a few differences between the Internet and the city based on construction and time. Basic websites can be made by anyone with computer access and a few simple skills. Although this does not equate to 'democracy', as is sometimes claimed, it does mean that one need not have corporate backing to create one's own web-space or critique another's. In fact, I teach students to make their first websites in only a couple of hours by stealing other sites and modifying them. This time scale is vastly different from the years it may take an architect to see a design built. The compressed sense of Internet time is often likened to 'dog years' - an apt metaphor given its rate of change. 1993-94 saw the birth of the first popular browser, Mosaic, and the mark-up language that produces web pages. By 1996 Mosaic had died out, replaced first by Netscape and then, increasingly, by Explorer. Through these stages, the web has undergone a visual transformation from grey pages with crude imagery to sophisticated layouts and animation, including the more recent streaming of audio and video.

Colonization of the Electronic Frontier

Since its beginnings in the late 1960s, the Internet has been referred to as a frontier. The first

network was developed in a decentralized way as a result of cold war paranoia, so that if one

computer were attacked the others would not be disrupted.[4] With its origins in the American

southwestern desert, its militaristic past, and this lack of central authority, the frontier metaphor

and attendant Wild West gunfight and computer cowboy imagery is not surprising. Its legacy

includes notions of an untamed space that has only recently undergone 'civilizing' by U.S.

governmental regulatory efforts, like the Communications Decency Act of 1996, to make it

'safe' for women and children.[5] Commercials for the search engine about.com (1999) play on

this imagery: a vast imaginary desert territory that their service helps you navigate without peril.

The frontier metaphor suggests a number of problematic associations and several potentially

productive ones. The dominant association is that of colonization, with virtual space providing

expansion for multinational corporations, American culture and products, and the English

language. However, the sense of newness and lack of structure provide space for imagining

other possibilities.

[Figure 12.1. Diane Bertolo, FT2K, 1997. http://www.turbulence.org/Works/FT2K]

Diane Bertolo's piece *Frontier Town 2000,* or *FT2K* (1997), is an intelligent and visually lovely

explication of Internet gathering spaces which juxtaposes the Internet to the city. The setting, an

electronic frontier town, alludes to the desert of the southwest, where the Internet began, and to

popular western mythology, in its reference to computer hacker cowboys and gold-rush dot-com

opportunities. In Bertolo's critique of the rhetoric around global villages and online

'community', we are told that these spaces are really 'ghost towns', 'memory palaces', or

tourist 'theme parks' for the disembodied. Buildings are all single-image flat facades attached to

wire-frame models. During our tour we encounter 'realistic re-enactment' games, arcades for 'authentic experiences', corporate trademarks, shoot-outs, and profiles of inhabitants that mimic personal homepages. We are shown fictions of presence and place - no one really 'lives' here, after all. Yet traces of the past and of known spaces abound.[6] Visitors can send postcards to friends as souvenirs of their visit; personae such as ghostBorgGirl haunt this place, suggesting the presence of the 'cyborg' - a hybrid subjectivity, human-machine, proposed by Donna Haraway, who calls on feminists to get into the 'belly of the monster' (Haraway 1991: 9).

[Figure 12.2. Performance, 1995. http://riceinfo.rice.edu/projects/CyberVato]

The historical connotations of the word 'frontier' have not escaped artists Guillermo Gomez-Pena, Roberto Sifuentes, and James Luna. As demonstrated in their 1995 collaboration *Shame-Man and El Mexican't Meet the Cyber-Vato* performance, in the American west, the dream of the white European frontier town meant genocide for the indigenous people who were perceived to interfere with the settlement of the supposed 'untamed' and 'empty' spaces. Their performance work inverts and enacts stereotypes of race and gender along what Gomez-Pena calls the 'new world border' of cultural misunderstanding (1996). Many of this group's recent performance works have been generated from, among other sources, a web-based *Temple of Confessions* (Gomez-Pena and Sifuentes 1996) in which visitors are asked to confess race-based fears and dreams. The venomous tone of these online confessions has shocked even the artists. They attribute the tenor of hatred to the seemingly anonymous quality of posting on the Internet: social niceties drop away as unfettered racial animosity displaces the utopian fantasy of a bias-free space (Gomez-Pena 1998). Their work also makes the point that the information superhighway bypasses the barrio and the ghetto, further keeping the frontier safe for a largely white virtual class.[7]

The new media artist Antonio Muntadas explores another form of colonization on the electronic frontier, the colonization of world languages by English, with his site *On Translation.* The bulk of Internet communication, over 80 percent, is in English (Tehan 2000). Thus, it is not surprising that a Cisco Systems' 1998-99 advertising campaign featured children from around the globe, all of them speaking English, and declaring the promise of the Internet: 'Are you ready?' English is undeniably part of the reality of global modernization. At the same time, many of the world's languages cannot even be represented as text on the Internet due to the technical limitations of the communications software architecture based on ASCII, the American Standard character set.[8] Muntadas's *On Translation* visually reveals the diversity of 45 different languages. Seeking to overcome and simultaneously draw attention to the Internet's inherent language biases, many of the languages in the piece are actually rendered as images instead of text. The site is based on the initial phrase: 'Communications systems provide the possibility of developing better understanding between people: in which language?' The process of creating the visual translations was modelled on the children's game 'telephone'. In Muntadas's version, the phrase is translated into another language before it is passed on. The resulting process reveals difficulties of translation in the quest for meaningful exchange: language is presented as a never-ending spiral of differences which viewers scan to see the different languages/translations.

Cyberfeminism and Grrl Outlaws

Differences in language usage and communication styles have long been areas for feminist research. In an essay by Critical Art Ensemble, media theorist Kathy Rae Huffman is cited for her joke about one of the possible benefits of Internet communication for women: 'In cyberspace men can't interrupt you' (Wilding and CAE 1998). The asynchronous nature of early networked conversation may have allowed a woman to complete her thought; yet on a larger scale, women's participation lagged behind men's in the mid- to late-1990s. The Guerilla Girls,

an activist collective known for their critical parody of art world hegemonies, produced a 1995 poster stating that: 'The Internet was 84.5% male and 82.3% white until now'. This statistical illustration explains in large part why the presence of women's voices was and still remains somewhat limited (Bennett and Palmer 1997).

The last fragment of the Guerrilla Girls' poster, 'until now', along with their tongue-in-cheek activism, suggests the character of many cyberfeminist voices. A visible minority claim to be geekgirls with an attitude. The frontier metaphor suggests some of the more potent imaginary subject positions for this breed of grrl: pioneer and outlaw. The pioneer occupies a space considered new or unknown. She is a homesteader, a squatter, occupying a space and making it her own. The outlaw plays by rules of her own choosing, armed with knowledge, challenging conventional norms.

In response to the male-centred culture of the Internet, a visible 'cyberfeminism' emerged in the 1990s, particularly within the arts and culture sectors. It is based in part on Haraway's dense cautionary writings from the late 1980s, including the particularly influential 'Cyborg Manifesto' (1991). She writes, 'Cyborg writing is about the power to survive not on the basis of innocence, but on the basis of seizing the tools to mark the world that marked them as other' (Haraway 1991: 175). Her notion of a critical feminist engagement with technoculture caught many women activists' imaginations. The writings of Sadie Plant in the UK, particularly her *Zeros and Ones* (1997) and some early interviews at the popular ezine[9] 'geekgirl' from Australia, also provoked women to engage. Plant plays with cyberspace as feminist utopia, recuperating and celebrating the history of women's pioneering past with technology, including the story of the first programmer, Ada Lovelace, and another significant programmer, Grace Hopper. Plant seeks to counteract the truism that technology is a male prerogative. In fact, Plant suggests that 'masculine identity has everything to lose from this new technics. The sperm count falls as the replicants stir and the meat learns how to learn for itself. Cybernetics is feminization'

(Plant 1996: 132). This tactic provided inspiration to visual artists who embraced the digital arts over art practices like painting that have a long and very male history. Some draw correlations between the collage or bricolage of cyberfeminist works and other more traditional practices such as weaving. Bricolage, the appropriation and stitching together of whatever is at hand, can be compared to the practices of the cyberflâneuse or the cyborg.

One of the first, most visible, and most vocal groups of these geekgirls was the Australian VNS Matrix (1991-7). This fragment of their manifesto suggests their mission:

> ...
>
> we are the virus of the new world disorder
>
> rupturing the symbolic from within
>
> saboteurs of big daddy mainframe
>
> ...

Like an electronic Calamity Jane, they went into conferences about the electronic frontier and played at being one of the boys, disrupting the conversation in brash and unladylike ways. They digitally resurrected the cunt imagery of the early 1970s and brought bodily flesh, fluids, and uncompromising queer sexuality to the clean chrome and circuits of the machine. They relished their outlaw status, inverted cultural stereotypes, and played with the language of sexual domination and control that is embedded in much technical jargon.

Hostile Takeovers

Despite the efforts of these trouble-making women, the fantasy of a global technotopia for women has little material likelihood, particularly given the economic inequality that segregates the vast majority of the world's women from the basic technological and educational infrastructure required to make web access a reality. Zillah Eisenstein's *Global Obscenities: Patriarchy, Capitalism, and the Lure of Cyberfantasy* (1998) reveals disparities made ever

greater by multi-national capital. 50 per cent of the world's population had never made a telephone call as of the 1998 publishing date of her book (Eisenstein 1998: 98). Literacy rates and proper healthcare for women world-wide are equally low. Large numbers of third world women of colour work under oppressive conditions to produce electronic and other goods for the mostly white and mostly male virtual class.

It is virtually impossible to escape the signs of the corporate occupation of the web – almost every commodity and its advertisement lists a web address. In the period between 1996 and 1998, the web became something of a cross between a mall and the yellow pages. Flashing banner ads crept into most sites with any significant readership. 'Free' email and web services abound, but they now come with a commercial element attached. Citizens of developed nations have become accustomed to spending money online. Once again, artists are and were aware of this dot-com world and have parodied and even exploited it, purposefully employing the slick visuals or structural tropes of corporate websites to their own ends.

Bodies Incorporated (1996) is one such site. Artist Victoria Vesna spoofs the promise that online we can all chose the body we want. In order to begin your fantasy, you first have to accept the lengthy legal terms of your purchase. Once you have made your choices, your body can wander through various spaces like the 'gated community' called 'home'. You can even kill off your body and leave it cast aside in the necropolis in favour of another. You get a copyright symbol resembling a corporate logo on your forehead. This is a particularly suggestive image for several reasons. The head with an extra eye reminds one of the heralded abandonment of the body in favour of the rational, disembodied Cartesian eye/mind. The logo/copyright calls attention to our cultural obsessions with property and their attendant legalisms, even within this immaterial realm. The third eye also hints at the watchful strategies of many dot-com advertisers and their information collection mechanisms for target marketing.

My own *neighborhood WATCH* (1999) makes reference to such corporate surveillance of consumer behaviour in the electronic neighborhood, as well as contemporary culture's more general obsession with watching. It reveals 'rear window' web views of three randomly selected web cams from around the globe, as well as the network hostname or IP address of the visitor, on its opening page. The three disparate views exemplify a possible non-contiguous, non-geographic form of space as described earlier. Visitors fill out a form, much as they might on many sites, which asks them about their own watching habits and fears of being watched. The piece stores these in its 'vicarious database' and exposes random fragments from it on another page. The data collection/distribution suggests that the seeming anonymity of online identity is not always so anonymous and that submitted data is not so private.

Vesna's title, *Bodies Inc.,* hints at another aspect of the collision of capital, Internet space, and language: the name of something is both its identity and also its spatial address. For most corporations, the desired name would be the corporate name. Language itself has become a commodity on the Internet. A very simple art piece by Heath Bunting, *Own, Be Owned or Remain Invisible* (1997), makes this point quite effectively. The piece consists of a page of text, ostensibly describing the exploits of the artist. Each word on the page is a link to the website which has co-opted that word as www.thatword.com. So if you follow a word, you might be horrified to discover that someone owns www.be.com or www.where.com. Some words that were not owned when I discovered the site a couple years ago are now functioning websites. Thus, *Own, Be Owned or Remain Invisible* traces the commodification of language over time.

Internet 'squatting' has been going on, too. Some people have purchased the rights to a domain name for the purpose of selling it to a company or other interest that might want it. This is rather like real-estate speculation. Registering a name with an agency that handles these was not a costly proposition, about $70 during this time period. Sales of already registered names can be high, though, when the buyer is determined to get the name they want and the seller recognizes

the value of it. For instance, Steve Forbes bought www.forbes2000.com in 1999 for $6,500 (Ladd 1999).

[Figure 12.3. RTMark mutual fund mechanism, 1999. http://www.rtmark.com]

Another site, rtmark.com (1997-), also plays with 'domain name' issues. RTMark realized that in the global economy, corporations have most of the legal rights of individuals, but none of the responsibilities. So it became a legal corporation whose business is perpetrating playful, well thought-out corporate sabotage. It has undertaken numerous large and small-scale projects, including the now infamous Barbie Liberation Organization's *Operation Newspeak*.[10] It uses the trading-post model of exchange to create a web-based mutual fund mechanism for activism. This allows individuals to invest in specific sabotage projects they want to support, or to lend a hand in carrying one out. It supports other activist-minded projects, too, and is establishing its own art action network.

RTMark has numerous franchise sites, all parodies of corporations and political figures like McDonalds, Shell Oil, and then-candidate George W. Bush. At first glance one might not recognize these sites as parody, due to their seamless design; a little investigation reveals an ironic, pointed, and informative difference. The ultimate example was a collaboration between RTMark and Zack Exley at the parody site gwbush.com. The candidate's lawyers issued them a cease-and-desist letter for using the name. However, because you cannot trademark a personal name, there was no real case. Then Bush filed a complaint with the Federal Elections Commission, asserting that Exley had violated election laws by not registering as a political committee. In the meantime, Bush himself purchased, or 'warehoused', numbers of such domain names, like bushbites.com and bushblows.com, in an effort to prevent further political parodies. Bush was so incensed by gwbush.com that he publicly called Exley a 'garbage man' and said, 'there should be limits to freedom'. The fact that Bush recognizes the important role that the

Internet has begun to play in American politics is clear. However, Bush missed the big picture and caused himself a public relations backlash: through the media attention on his actions, he turned a small site that cost a total of $210 for its first two months of existence into an international profile site with over six million visits during May of 1999 (Ladd 1999). Bush's official site only had about thirty thousand visits a month at the time. This incident suggests how the Internet might function as a site of intervention on a global scale.

Tactics in the Network

The networked structure of the Internet might increase the scope of tactics and practices that have long been employed by activist organizations. Traditional forms of collaboration and the spread of critical information through grassroots phone trees and pamphlets have expanded easily onto the Internet, as demonstrated early on by the Zapatista FloodNet and others. Traditional culture-jamming tools have expanded to include sophisticated programming borrowed from hacking. However, Ricardo Dominguez, from Electronic Disturbance Theatre, draws distinctions between such activism and hacking, saying, 'we call for disturbances, and distribution, not destruction' (Krempl and Dominguez 2000).

Networking is a traditional feminist tactic that has gone online in a fairly straightforward fashion. Given the shoot-'em-up, boys-with-big-toys character of the frontier, the necessity of these networks is obvious. There are a number of employment-related sites like webgrrls.com that help women train for the tech world. There are also websites which function like artists' networks; for instance, old boys network (OBN) (1997), queerarts (1997), and Face Settings. Face Settings (1997) blends Internet resource sharing, an international event calendar, and traditional physical meetings and dinners. The twenty-something ezine network called chickclick (1997) originally boasted 'girl sites that don't fake it'. Because several of the linked ezine sites had loyal readership and the umbrella site had such a clever tag line and hip graphics,

all were able to garner large 'hit counts', or numbers of visits, and help route readers to each other's sites; they also won the attention of advertisers in search of new markets. Within a year, some of the sites even received significant income from banner ads, allowing their creators to focus on producing the ezine rather than their 'day jobs'.[11]

Artists are using the medium of the web to think about 'networks' within individual art pieces as well. The database or information archive is a structure intrinsic to websites. Such mechanisms particularly foreground the fluid possibilities of Internet space. Muntadas made one of the first such works, *Fileroom,* in 1994. It began as a collection of instances of censorship, inviting visitors to add to this history and creating a partial, fragmentary, and ever-changing global record of censorship and its effects.

Another archival work is *dissemiNET* (1998), a project by Sawad Brooks and Beth Stryker. The site establishes the electronic network as a diasporic memory repository, poetically floating images and texts across the screen. The artists began the piece with stories of disappearance and displacement during the civil war in El Salvador, placing a local political situation in a global context to preserve memories of the event. Now ideas and examples of witness and testimony of many kinds can be submitted to the site's repository and later searched as a form of recall.

[Figure 12.4. Shu Lea Cheang, Brandon, 1998-99. http://brandon.guggenheim.org]

Shu Lea Cheang creates an archive and expands on traditional forms of networking in the piece *Brandon* (1998-99), a one-year multi-media hypertext event. The project is organized around the true story of Brandon Teena, whose life is also recounted in the critically acclaimed film *Boys Don't Cry.* The website uses his story as a vehicle to explore the broader issues of gender identity; it interrogates discourses around the intersections of bodies and identities, both offline and online. The fantasy of gender swapping on the Internet is problematized in its juxtaposition

with the story of Brandon's struggle as a female-to-male transsexual who attempted to pass as male in a small town in rural Nebraska, and was consequently raped and murdered. Shu Lea Cheang's website functions as a network, an organizing mechanism for fragments of text, history, and debate; its production has brought together numerous artists, writers, scholars, institutions and even legal analysts into a visual hypertext. As such, the site evokes discussions about the Internet as a global community. Some of the resulting discussions ended up on the website, while some conversation occurred in performance debates. These debates included one titled 'The Body Under the Knife of Medical Technology' that linked the Guggenheim Museum in NY through the web to the Theatre Anatomicum in Amsterdam. Another debate connected the Harvard Law School to global 'netizens' who acted as jurors for the cases argued, on such topics as online harassment and virtual rape (Dibbell 1993). By dissecting the phantom nature of gender, Cheang relentlessly interrogates the anonymity of the Internet, demythologizing it as utopian space.

Conclusions

The utopian rhetoric of the electronic frontier has been tempered in the short time since I originally wrote this text, in part because so many people have become familiar with it. The frontier has largely been 'settled'. Computers are now reported to be in 60 per cent of U.S. households. As of July/August of 2000 in the U.S., women are reported to be using the web with as much frequency as men (Austen 2000). Although it had a limited presence for some time, Internet art has become normalized within art world institutions with the inclusion of websites in the 2000 Biennial at the Whitney Museum of American Art.[12] As with any new cultural phenomena, the fantasies of the Internet as a hitherto unknown space have passed into the everyday.

Corporations initially rushed at the Internet opportunities for global expansion and their mall-ification of the Internet grew at a dramatic rate. However, some of the euphoric glow of the gold rush has now faded; tech stocks are no longer quite so overvalued and dot-com roadkills are innumerable. Although e-commerce has finally become a reality, grossing almost seven billion dollars in the U.S. during the third quarter of 2000 alone (USDC 2000), it is still only around one per cent of estimated consumer retail sales. It is significant that the growth of e-commerce and the mass entry of women onto the Internet coincide. This pattern was seen in urban spaces at the end of the last century and is described by Anne Friedberg in her book *Window Shopping* (Friedberg 1993: 36-7). She notes that women's entry into public life came through consumer activities allowed by changes in the urban spatial configurations that created department stores.

Not surprisingly, the online world reflects the offline one. On a global scale, the material effect of the Internet has largely been to create a greater disparity between information 'haves' and 'have-nots'. Domain name real-estate stakes are higher than they were a few years ago with sales of names going into the hundreds of thousands of dollars. Big corporations have used their financial weight to sue smaller owners of names related to their interests. One of the most infamous examples sparked what is now called the ToyWar. eToys, the online toy e-tailer demanded that the artist's group etoy give up its domain name. RTMark and other activists staged protests of this bully-like gesture and later claimed responsibility for the public outcry and the plunge in stock prices of the toy company that is now close to going out of business. Although heralded as a victory for Internet democracy, without solid legal protections corporate bullying continues and many smaller interests are forced out of existence (RTMark 2000). As corporate occupation has transformed the web and the corporate website has become the undisputed dominant settler on the frontier, the overzealous democratic rhetoric of only a few years ago begins to take on a different tone. Although they still seem naïve, these utopian democratic fantasies are now necessary to envision the Internet as a space where 'choice' and

'debate' mean more than just what product or stock to buy. Activists, artists, writers, and other cultural workers are a part of such a project.

[Figure 12.5. Nancy Paterson, Stock Market Skirt, 1998. http://www.bccc.com/nancy/skirt.html]

Nancy Paterson's *Stock Market Skirt* (1998) is a humorous but pointed examination of virtual space's effects on even seemingly unrelated parts of our lives. The ebb and flow of the stock market, translated by a computer and mechanical mechanism, raises and lowers the hemline of a skirt as a real time feedback of the activities of the system. But there is no subject, just an old-fashioned dress-dummy, wearing this disembodied dress, no visible agency involved. On the other hand, Regina Frank's performance *Hermes Mistress* (1994-96) depicts an active subject who stitches together fragments of the texts she finds through her laptop, transcribing them into the pattern of her oversized red dress one bead at a time. This subject integrates elements of the electronic space into the fabric of her life, blending age-old technologies with the new and actively editing in the process. The task ahead of her, like the scale of the dress, is immense. It will take time and perseverance and can only be achieved through small, sustained gestures.

[Figure 12.6. Regina Frank, Hermes Mistress, 1994-96 Spiral, Wacoal Art Centre, Tokyo http://www.regina-frank.de]

In both instances these works suggest the inevitable presence of technology in people's lives, particularly women's lives. Paterson's piece suggests the fickle nature of public investment in the now volatile and less golden stock market. Frank's piece is a poignant image of Haraway's cyborg and the cyberflâneuse I have suggested. She might also be considered an icon for the only possible embodiment in the virtual space of the Internet. Frank's task mirrors our own attempt to disrupt dominant paradigms and make spaces for ourselves, whether they are

physical spaces, virtual spaces, or some combination of both. Only numerous small gestures over time can add up to political change.

Notes

---

[1] Precise definitions of these terms are not exactly the Internet, but popular use elides them. Cyberspace suggests a larger space mediated by a range of technologies. The information superhighway was originally applied to a specific larger bandwidth media stream proposed by the government.

[2] Such artists include Alfredo Jarr, Hans Haacke, Barbara Kruger, Antonio Muntadas, Krzysztof Wodiczko, Repo History, and others. Such art movements as dada, the Situationists, Fluxus, and conceptual art influenced them.

[3] An IP address is the unique set of numbers that identifies a computer in the network.

[4] Ironically, this decentralized structure and its geographical dispersal make regulation of this space more difficult than a medium like television, although not impossible since it also provides a sophisticated array of mechanisms for surveillance in a technical panopticon.

[5] See the *Time* magazine issue on cyberporn from 3 July 1995. The illustrations alone are telling.

[6] Elizabeth Grosz (2001) reminds us in her arguments elsewhere in this collection that utopian projects represent the past and the present as if they were the future.

[7] A survey from 1998 revealed Internet inhabitants in the U.S. to be 87 per cent white (GUV 1999).

[8] An interesting discussion of the technical difficulties of representing languages is addressed in the *New York Times' CyberTimes* essay 'Language: Final Frontier for the True Global

Network'. It should also be noted that in picture form, the Internet could also be used to preserve languages that are quickly becoming extinct.

[9] The term zine was coined to describe an independently produced magazine. Such independent publications proliferated on the web and came to be called ezines.

[10] Don't miss the videotape that documents the 1993 media event where the voice boxes on 300 talking Barbies and talking GI Joes were switched and the altered dolls were reverse shoplifted into stores just before Christmas. It has been broadcast on PBS and seen at many festivals.

[11] By the end of 2000, the site was run by a corporation full of men rather than the original women (Heidi Swanson and her sister for the first year) and had lost some of its racier content and catchy tag line.

[12] So, of course, RTMark proceeded to sell its tickets to the exclusive artists and bigwigs reception on ebay.