

Real Performance on the Pseudo Network

Franklin Furnace & the Internet as an Open Medium

by

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To my parents, Pauline & Amante Sant

(Internet pioneers among their peers)

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Preface

Real Performance on the Pseudo Network explores the inner workings of the New York-based nonprofit arts organization and independent Web content producer Franklin Furnace, as more and more of the Internet becomes corporate and commercial. My focus is on what Web content producers are able to present on the Internet with fewer financial and/or technical resources compared to standard broadcasting. The potential of the Web as a new communication medium that can serve as a channel for creativity grows with the on-going improvements in personal computers as well as the availability of relatively low-cost, yet powerful, digital audio-visual production equipment. My specific interest is in *webcasting*: a form of online performance in which text, audio, and still or moving images are presented through websites either as live events or as archived material available for on-demand screening. Web content creators can reach an audience without a controlling intermediary such as a broadcast distributor or network. Webcasting offers individuals or small organizations the possibility to broadcast their work and ideas to audiences they could not previously reach through other means. My main concern is that access to the Web as a creative medium may soon be taken over by governmental and commercial interests to be regulated and controlled like radio and television broadcasting .

During the past seven years, I have worked as an independent Web content producer on various projects ranging from tourism to education, and from journalism to online community building. Prior to that I had worked for over ten years as a radio and television producer in both corporate and independent media organizations. This dissertation is based on my first hand perspective of various intersections between performance and the Internet. My primary access to creative work with the Internet is through observing artists presented online since 1998 by Franklin Furnace. I have closely observed the performances of many others too, and to a large degree I am also a participant observer. Born and raised in Malta, a small island nation, I have always been very sensitive to performances which are experienced by only a few people, for reasons that vary from geographical size to general appeal. The Internet has made it possible to deliver small works to broader audiences because physical space or geographical proximity are not as problematic online as they are in the off-line world. What were once isolated pockets of like-minded discernment are now potentially large online communities of enthusiasts.

This dissertation consists of six chapters. In the introductory chapter I argue that large corporations may eventually control access to the Web (as a creative medium) in the same way that most radio and television broadcasting has been usurped by commercial interests. This concern is clearly on the agenda of civil libertarians, but from my conversations with artists who cherish webcasting as an alternative channel for their work, I know that while some (like Franklin Furnace) have already felt the bitter sting

of this reality, others are still unaware of this peril. I will present the key issues related to the potential of webcasting as a creative medium with the aim of explaining what is really at stake for independent webcasters.

The fundamental difference between the Internet and television is that the Internet offers broader public access to the means of production and distribution. As we shall see in Chapter 2, this is closely related to Franklin Furnace's decision to start presenting performance art on the Internet after more than two decades of activity at its alternative art space on Franklin Street in downtown New York City. Chapter 2 also analyzes how webcasting is different from and/or similar to television broadcasting and early cinema. The main difference between the Internet and all other media before it is that the means of production are fairly accessible and the channels for distribution are still not directly controlled by intermediaries. Zooming in on the relevant technical means that make webcasting possible, I will explain that the concept of push and pull technology can help us understand how the Internet is like or unlike other communication media and models that preceded it.

The Internet is first a network of computer networks. The World Wide Web – or simply the Web – is merely one of its better known uses, connecting huge repositories of text, image, and multimedia files in densely interwoven databases. Email is another pervasive use of the Internet, but while it is quite possible to use the Web to send, receive, and store email, this technology predates the Web as we know it now and still

exists independently from the Web in many instances. Before the popularization of the World Wide Web, with its graphic enhancements and multimedia applications, text and hypertext were the basic elements for communication over the Internet. When anyone spoke about the Internet prior to 1995, what they were most likely referring to was either one of the various types of text-based data sharing options including asynchronous telecommunication over a network such as Usenet, Internet Relay Chat, and electronic depositories of files strung together through hypertext. The history of the development of the Internet has been chronicled¹ in several magazine and newspaper articles, books, websites, and even a television documentary called *Nerds 2.0.1*, but no published history of the Internet gives particular attention to aesthetic performance with a view to set the stage for a reevaluation of the efficacy of text-based chat as a complimentary element to streamed video in the better examples of webcasting I will examine in this dissertation.

During the early years of Web development, the Internet was already being explored as a venue for performance through text-based synchronous communication. In Chapter 3, I examine what led Franklin Furnace to start presenting live art on the Internet in 1998. This research offers a unique overview that links performance art to

¹ K. Hafner & M. Lyon, *Where Wizards Stay Up Late: The Origins of the Internet* (New York: Simon & Schuster, 1996) and C.J.P. Moschovitis et al, *History of the Internet: A Chronology, 1843 to the Present* (Santa Barbara, CA: ABC-Clio, 1999) are among the most extensive works in book-form on the history of the Internet, while *Hobbes' Internet Timeline* describes itself as “an Internet timeline highlighting some of the key events and technologies which helped shape the Internet as we know it today.” This website is available at <http://www.zakon.org/robert/internet/timeline/>

live art on the Internet through artists' books. This dissertation's broader investigation into how the new technology transforms power relations, resounds with the many effort of avant-garde artist throughout the twentieth century who explored interactive art while questioning the role of the artist in relationship to their audience. The greater degree of interactivity offered by the Internet, is one of the main characteristic that make it different from other electronic media, such as radio and television.

Webcasts that move away from the aesthetics of television, embracing distinctive qualities of the Internet like interactivity and immersion, highlight the differences which make the Web a different medium altogether. The work of various small independent Web producers who tend to create productions that are specific to the new medium is examined closely in Chapter 4. Through the work presented by Franklin Furnace since 1998, I explore webcasting standards, which vary not only from country to country (as in the case of television/radio broadcasting) but also depend, in part, on the expectations of the audience for a particular webcast.

Aside from the questions brought up during the creation and primary distribution of webcasts, there are issues that become evident with preservation and archiving. In Chapter 5 I will deal with two critical issues raised by webcasting: long-term distribution of digital works, and digital rights management. These issues are relevant for making webcasts available on demand immediately after they are created, and even more so during efforts for long term preservation and dissemination. Identifying the

best preservation strategy or strategies is the first step, but there are also intellectual property matters to consider. Intellectual property rights are a hotly debated subject with regards to the Internet and webcasting because digital copies are practically identical to the original source file, and collecting royalties for the use of original copyrighted work is one of the most controversial topics related to the Internet as a medium for the creation and distribution of creative work.

The commercial potential of radio broadcasting was recognized relatively early in its history, and legislation by corporate design subsequently turned it into a closely controlled channel of mass communication. The commercial potential of the Internet has already been recognized. Will the financial interests of big business eventually determine what can and can't go on the Web too? In the concluding chapter of this dissertation, I call the implications of this quandary, the *real* digital divide. The burning question of access in this context is a matter of *can* or *cannot*. I also argue that even as the Internet becomes increasingly commercial, it still has the potential to sustain non-commercial productions for fairly large audiences.

Table of Contents

Dedication	iii
Acknowledgements	iv
Preface	viii
List of Figures	xv
Chapter 1: Introduction	1
Chapter 2: Webcasting	25
Chapter 3: Same Ideas: On Paper, On Line, Whatever...	67
Chapter 4: Live Art on the Internet	97
Chapter 5: It's Not As Easy As It Seems	130
Chapter 6: Keeping the Web as an Open Medium	160
Bibliography	184

List of Figures

Fig. 1	iVisit screen-grab from Bed-In for Peace (2001)	48
Fig. 2	The [abc] Experiment at Arts International	126

Chapter 1

INTRODUCTION

In 1993, Franklin Furnace sold its collection of 13,500 artists' books published internationally after 1960, the largest in the United States, to New York's Museum of Modern Art. Immediately after the sale, Franklin Furnace's Board of Directors revisited the organization's mission statement and decided that it still served the institution. In many ways, the original purpose of the organization, to foster the dissemination of artists' ideas, has never changed. The delivery has changed from print and the physical space-time continuum to virtual presentations known as "Live Art on the Internet." After more than 25 years in existence, Franklin Furnace remains on the forefront of New York's experimental art scene; pushing for an exploration of the unknown and uncharted territory rather than continue to present works in styles which were once new or shocking. Yet, as it now operates in the economic culture of electronic mass media, it is finding that there are new challenges to deal with.

In this chapter I will look at the economic implications embedded in recent technological developments, in which Franklin Furnace and other independent Web content producers currently function. These elements resonate throughout the dissertation and facilitate a thorough appreciation of why Franklin Furnace and others have chosen webcasting as an alternative art space and communication channel.

1.1 TALKING ABOUT A REVOLUTION?

Over the past ten years or so, we have often heard or read that there's a revolution going on: the Internet Revolution.¹ It is sometimes described as a revolution on the scale of the Agricultural Revolution and the Industrial Revolution, pivotal in the social history of humanity. In the early 1990s, cyberspace visionaries like John Perry Barlow and Timothy Leary spoke about the Internet and digital technology as revolutionary.² By the end of the decade, the mainstream media, fueled by large commercial interests, had also adopted the "revolution" mantra. Since Marshall McLuhan theorized about the global village, observing how electronic mass media were collapsing space and time barriers in human communication, enabling people to communicate on a global scale, it has also become common to speak of a Communications Revolution to refer to the development of global telecommunication via satellite technology. Yet, as British journalist Tom Standage points out in his fascinating book *The Victorian Internet* (1998), the nineteenth-century pioneers who developed the telegraph started establishing a worldwide communications network with cables spanning across oceans and over different continents more than a century before McLuhan saw the world as a global village. The Internet is the latest development in the information technology

¹ The "Internet Revolution" is actually part of "the Digital Revolution" which is a phenomenon independent from the Internet, referring to the availability of high-quality audio-visual production tools at affordable prices. The Internet relates to the distribution aspect of "the Digital Revolution".

² John Perry Barlow's most famous contribution is *A Declaration of the Independence of Cyberspace* (1996), available at <http://www.eff.org/~barlow/Declaration-Final.html>. Timothy Leary's writings on cyberspace are collected in a book called *Chaos and Cyberspace* (Berkeley, CA: Ronin, 1994).

revolution that started in the telegraph age.³

There was, however, an interesting revolution of sorts in the 1990s. It is a revolution which Andrew L. Shapiro calls “the control revolution,” by which he means a reversal of control structures over the channels of electronic communication through the Internet. Shapiro introduces the notion of a “control revolution” to discuss the Internet following its use in the context of information technology by James R. Beniger. Beniger’s work deals with how various aspects of life are controlled by information and technology, while Shapiro specifically looks at who controls the production and distribution of information on the Internet. To some extent this “control revolution” is still underway, but its impact has shriveled under the scorching heat created by friction between the old global economy built on the concept of nation states and multinational corporations, and the so-called *new global economy*, based on alliances forged without controllers or intermediary brokers. While Barlow, Leary, and other radicals from the 1960s psychedelic era appeared to be proclaiming a new Utopia in the online world, one built on an unshackled exchange of ideas and a free socioeconomic structure, Shapiro, a New York lawyer, explains that “there is more at stake here than being able to send messages more quickly or having access to a supercharged digital library” (1999: 10). While jubilant that Internet users have an upper hand in controlling their online experience, he cautions us to ask: “Who really

³ My point of view has been significantly shaped by Paul Levinson’s book *The Soft Edge: A Natural History and Future of the Internet Revolution* (London and New York: Routledge, 1997).

determines our online experience? Do we control it or do big gatekeepers like Microsoft and AOL? What are the trade-offs between convenience and real choice? How can we distinguish the illusion of personal control from the real thing? And what can we do to preserve both easy access to the Net and the opportunity to make fully informed decisions about our experience?" (1999: 100). Lawrence Lessig addresses these questions in *Code and Other Laws of Cyberspace* (1999) and, more recently, in *The Future of Ideas* (2001).

The core argument in *The Future of Ideas* is that without free resources, innovation and creativity will decline. By "free" resources he doesn't mean without a cost of any sort, but rather "free" in the sense of liberty, as it relates to Shapiro's control revolution. Shapiro is hopeful that there are ways to prevent the Internet from turning into a closed medium of communication controlled by regulations and commercial concerns, but at the outset of *Code*, Lessig claims that "values that we now consider fundamental will not necessarily remain. Freedoms that were foundational will slowly disappear" (Lessig, 1999: 6). A few months later, as he was writing *The Future of Ideas*, Lessig began to believe that the control revolution which Shapiro described has leaned towards the fears of the dystopia he describes in *Code*, where the online experience is potentially controlled by giant multinational corporations like Microsoft and AOL Time Warner.

In *Code*, Lessig argues that the technical architecture of the Internet before Microsoft, AOL, and the entertainment industry started attempting to control it, promoted basic personal liberties such as free speech, privacy, and access to content free of excessive regulation. Shapiro claims that there are four features in the architecture of the Internet which enhance individual control: many-to-many interactivity, the flexibility of digital technology, a packet-based distributed network, and no discrimination between different operating systems or platforms. To these four features he adds two more, still under development, as factors which can further boost individual control on the network – widespread use of residential broadband Internet connections and universality of access.

Shapiro argues for the right balance between individual and corporate control, based on World Wide Web inventor Tim Berner-Lee's analysis of the web's infrastructure. Berners-Lee states that "the web's infrastructure can be thought of as composed of four horizontal layers; from bottom to top they are the transmission medium, the computer hardware, the software and the content" (Berners-Lee, 2000: 129-130). These layers should be kept independent from each other in order to allow for variable freedom and control with each layer.

Both Shapiro and Lessig recognize that the power of the Internet can easily be taken away from the individual and handed over to governments in tandem with media mega-corporations. In Chapter 14 of *The Future of Ideas*, Lessig offers points of

resistance, including connectivity regulations (like the ongoing broadband regulation currently on debate in the U.S. Congress and various parliaments in the European Union), software control (as in the famous Microsoft case), copyright (which I will discuss at length in Chapter 5) and patent laws (as in the case of radio, which I will mention later on in this chapter).

Proclaiming his bias “in favor of the least invasive regulatory response” balanced by “a guarantee of a regulatory response if regulation is needed” (2001: 248-249), Lessig proposes that governments should encourage the development of open code and make sure that no one engineers the Internet to empower their own business interests above everyone else. Focusing on lawmakers and the Federal Communications Commission (FCC), he claims that “since we barely understand how the technologist built this revolution, we don’t even see when the lawyers take it away” (265). His conclusion, however, is that we’re all embracing “an architecture of control – without noticing, without resistance, without so much as a question” (265). He insists that commercial interests threatened by individual control of the Internet are doing all they can to turn off the “technology of freedom,” and ends his book by stating that “[w]e are doing nothing about it” (268).

Consumer advocate Ralph Nader has asked the U.S. government to use its purchasing power to fight Microsoft's dominance in computer operating systems and office-productivity software. In a letter to the head of the Office of Management and Budget

on June 4, 2002, Nader claimed that by changing its spending habits the federal government could accomplish what it had failed to do in the costly antitrust case against the giant software corporation. “The only consumer in North America who can break up the Microsoft monopoly simply through purchasing strategies is the U.S. government.”⁴ Nader suggests a variety of approaches, including requiring the software giant to make its proprietary formats work smoothly with products from Apple Computer Inc. and other Microsoft rivals, or a governmental purchase of the rights to Microsoft's software outright and then a release of it into the public domain. Nader's letter raised comments from all sides.

An online column by Dan Farber, executive vice president of content development and integration for ZDNet, one of the leading technology information websites, echoed a concern that many have about government involvement in decisions concerning information technology. Farber claims that the courts should be left to deal with “Microsoft's predatory behavior,” and governments and individual consumers should be free to decide whether Microsoft's products are worthy of their investment. Farber also points out that the governments of Germany and Taiwan have both acted away from Microsoft's dominance by adopting open-source software on their desktops and servers. “Windows could be thrown off an approved list within the government procurement bureaucracy, but at what point does that action become illegal and anti-

⁴ “U.S. Government Buying Could Help Crimp Microsoft – Nader” by Andy Sullivan (Reuters) news report available online via Yahoo! on June 4, 2002, at http://story.news.yahoo.com/news?tmpl=story&u=/nm/20020604/tc_nm/tech_nader_dc_1

competitive to Microsoft?”⁵ A balance of control and freedom at the various layers of the infrastructure – in this case, the software layer – is probably the most sensible solution for this situation.

Open source applications are designed so that programmers can read, modify, and redistribute the source code for a piece of software. The goal is to help the software evolve as different people improve and adapt it by fixing bugs and finding new uses for it. The Internet and the World Wide Web have been built on an open source ethic. Internet software available as open sources ranges from a whole operating system (GNU/Linux systems) to several applications for common computer use, like word processing (Openoffice.org is a good example). Open source software has made for relatively faster development of Internet applications because different people work on the same application, improving it and fixing bugs along the way.⁶ Companies like Netscape have brought this thinking to the commercial world to the chagrin of software giants like Microsoft and other commercial interests that benefit greatly from a controlled consumer market. Control over the consumer markets is a business strategy that has made broadcasting the industry it is today.

⁵ “Why Nader's Microsoft plan is flawed” by Dan Farber (ZDNet) available at <http://zdnet.com.com/2100-1107-933280.html>

⁶ For more on this see the GNU Project at <http://www.gnu.org> and the Open Source Initiative at <http://www.opensource.org>, as well as SourceForge.net which is the world's largest repository of Open Source code and applications available on the Internet.

1.2 DOES HISTORY REPEAT ITSELF?

The history of wireless telecommunications shows that the dynamics of interaction between senders and receivers tend to shift from a two-way format to a one-way mode. Radio was not originally designed as a medium for the few to transmit their messages to the many, yet this is what it became less than thirty years after it was invented. The same thing may happen with the Internet.

World War I brought about the first government action against free communication. On April 6, 1917, the United States declared itself at war with Germany to make the world “safe for democracy” and ordered all amateur wireless stations to close, to avoid interference with military telecommunications. The following day, President Woodrow Wilson, who entered politics with an agenda to protect the public from exploitation by trusts and stressed individualism and states' rights, instructed the U.S. Navy to take over all wireless stations across the country. The Navy ordered large quantities of radio equipment from the main manufacturing corporations, and as popular entertainment historian Joseph Csida puts it “the War did for radio in little more than a year what would probably have taken another decade or more to develop in peace time” (Csida & Bundy Csida 1978:161). Immediately after the war, the Navy asked Congress to be granted a total monopoly over the control of all radio operations and development because the government, according to U.S. Navy Secretary Josephus Daniels, “would lose very much by dissipating it and opening the use of radio communication again to rival companies” (Barnouw 1966: 53).

The Navy's desire for a monopoly on wireless telecommunications was thwarted by the efforts of Edward J. Nally, Vice President and General Manager of the Marconi Wireless Telegraph Company of America. Radio amateurs of the American Radio Relay League (ARRL) objected too.⁷ ARRL's president, Hiram Percy Maxim, appeared before Congress to rally support for amateur radio, but his while his plea helped remove the possibility of a government monopoly over radio in the United States, his desire to return governance of the airwaves to the way it was before the war was not completely fulfilled. The ban on amateur radio was lifted in 1919, but radio was already starting to emerge as a financial enterprise.

Due to patent wars between the Marconi companies, the General Electric Company, the Westinghouse Electric & Manufacturing Company, and the American Telephone & Telegraph Company, no one was able to produce the appropriate equipment to make radio a truly profitable business before the 1920s. Riding on a post-WWI wave of patriotism, the U.S. government urged General Electric to buy American Marconi in the fall of 1919, to keep control of the emerging commercial wireless telegraphy industry out of the hands of British interests, which owned the main assets of the

⁷ Wireless amateurs had been around since the early days of radio, assembling their own transmitters and receivers both as point-to-point communication devices among themselves, as well as to listen to commercial and naval stations. Not all radio amateurs built their own radio sets. Several less technically savvy radio amateurs bought their equipment factory-built. Some "amateurs" even held commercial operator's licenses and many of them had served in the Navy during World War I.

Marconi company. Under the guidance of GE President Owen D. Young, all the U.S. patents and assets owned by Marconi were absorbed by a new subsidiary company, called Radio Corporation of America.

When the RCA-GE-AT&T patent pool was consolidated, no one, except David Sarnoff,⁸ imagined that radio broadcasting would become big business within less than a decade. RCA's contract with GE and Westinghouse only gave it the right to sell to so-called radio amateurs. The RCA lawyers stretched the definition of "radio amateurs" to encompass all radio listeners who touched the knob of a broadcast receiver, even though they usually did not have any idea what turning the knob did inside the set other than produce music or a different program. When the broadcasting boom came about in the mid-1920s, thousands of licensed radio amateurs began assembling receiving sets for friends and relatives. Some even started producing radio receivers on a commercial basis, often ignoring patent infringements since their

⁸ In 1915, a young Assistant Traffic Manager at the Marconi Wireless Telegraph Company of America called David Sarnoff proposed a "Radio Music Box" and pointed out the commercial potential of broadcasting to a mass audience. In a now-famous memo to Edward J. Nally dated September 30, 1915, Sarnoff outlines "a plan of development which would make radio a 'household utility'...arranged for several wavelengths...changeable with the throwing of a switch or pressing of a single button" (Sarnoff, 1968:31). Nally turned down the proposal thinking the use of radio for entertainment was frivolous, even though Sarnoff explained that the radio music box could also be used for "numerous other fields" (32). Some years later, Sarnoff became President of the Radio Corporation of America, which acquired the American Marconi Company in 1919 from British Marconi, and Chairman of the board of the National Broadcasting Company (NBC), a subsidiary company of RCA. Sarnoff is undoubtedly one of the great minds behind the development and success of radio as big business.

intentions were not to make big business. As more radio stations appeared on the dial, the government felt that although it should not hold a monopoly it had the obligation to regulate. All books on the history of broadcasting in America claim that chaos ruled the airwaves at this time, and thus it is understandable that President Coolidge urged Congress to enact new legislation for the regulation of radio broadcasting, and within a couple of months he was signing The Radio Act of 1927 into law.

Radio has been legislated from a two-way communication medium to a one-way broadcasting model controlled either by big business interests or governments, depending on the country. Democratic countries pulled off such a move effortlessly because the radio spectrum is limited and there are only so many radio frequencies which can be assigned to ensure the best use of the available bandwidth. With the Internet, this physical restriction does not play a significant role. Yet, like radio, the Internet is built on an end-to-end infrastructure that connects points directly without a necessary intermediary. This communication model does not discriminate against content or applications because it has no gatekeeper. It is what makes pirate radio stations possible and what made the open Web possible. However, the end-to-end structure of the Internet is easily compromised. Gateways can be built into the network, and they can control what can and cannot go on the Internet. AOL has been accused of doing this on its propriety network, by Internet Server Providers (ISPs) like

Earthlink.⁹ Similarly, Microsoft has been accused of pushing MSN as the default Internet Service Provider on Windows 98, operating it as an AOL-style proprietary network, even if there is no way Microsoft could convince anyone that subscription to the MSN service is a required component for any version of its operating system.

Infusing systems of control on the Internet changes its original character considerably.¹⁰ Examples of controlling the Internet by laws and rules imposed on both Internet Service Providers and individual users, include the Digital Millennium Copyright Act of 1998, and the ill-fated Communications Decency Act.¹¹ Some argue that the government should let individual corporations control their own networks, the way they want, because their subscribers will simply unsubscribe if they are unhappy with the service.

⁹ See Earthlink's nationwide marketing campaigns from 2000 through 2002 comparing their service to AOL, claiming you cannot get the "real Internet" via AOL.

¹⁰ The AARP (formerly the American Association of Retired Persons) has published an excellent report on all this called "Tangled Web: The Internet and Broadband Open Access Policy" - available at http://research.aarp.org/consume/d17331_tangled.pdf

¹¹ The Digital Millennium Copyright Act of 1998 (DMCA) is a controversial law whose many aims include the implementation of the latest United Nations' World Intellectual Property Organization treaties, the creation of limitations on the liability of online service providers for copyright infringement when engaged in certain types of online activity, and the creation of an exemption for making a copy of a computer program by activating a computer for purposes of maintenance or repair. It also contains various other miscellaneous provision relating to functions of the U.S. Copyright Office, distance education, webcasting of sound recordings on the Internet, and the exceptions in the Copyright Act for libraries and for making ephemeral recordings. The full text of the DMCA is available online at <http://www.loc.gov/copyright/legislation/dmca.pdf>

It is technically possible for cable Internet providers to control the flow on the Internet connection to their subscribers, in ways not too different from how they regulate access to cable TV channels. This is not merely some paranoid hypothetical concern. This is because “by requiring that everyone that gets access to cable do so through a small number of controlled ISPs, the cable companies will reserve to themselves the power to control what access they get – in particular, the power to decide whether some content will be favored over other content, whether some sites surf faster, and whether certain kinds of applications are permitted” (Lessig 2001, 156).

Evidence of this type of content discrimination was strongest at AT&T’s Excite@Home cable Internet service, before it went bankrupt and ceased operations at the end of February 2002. Examples of gatekeeping by cable Internet companies include: limits on the number of minutes that a subscriber may use a streaming video connection on what is sold as an “always on” Internet connection; an “acceptable use” rule forbids customers from operating their own website; data is filtered for “appropriate” use; and, running more than one computer on the same connection is prohibited.¹²

The fact that Internet technology is delivered in packets whose type, if not content, is easy to identify, enables service providers to exercise greater control over the content

¹² This is based on information presented in a paper by Jerome H. Saltzer, “‘Open Access’ is Just the Tip of the Iceberg” (October 22, 1999). Available online at <http://web.mit.edu/Saltzer/www/publications/openaccess.html>

delivered over their cables than the seamless signals of cable television. Laws and regulations in most countries already permit cable companies to exercise control over what is carried on their networks, so, by extension, Internet data is no different from the audio and video signals, except that it flows as two-way personalized communication rather than just as a one-way broadcast. Access to the Internet over DSL, which rides on telephone networks, is covered by different laws and regulations which prohibit any discrimination or tampering with the signals carried on phone lines.

1.3 THE RISE OF RESIDENTIAL BROADBAND VIS-À-VIS MEDIA CONVERGENCE

The Internet started emerging as a medium in its own right after 2000, with the popularization of residential broadband and media convergence. Broadband and convergence made streaming media accessible to more producers and consumers. What five years ago was technologically out of reach for most people is now very accessible and what is not financially feasible now may make plenty of fiscal sense in the near future.

Broadband, the term for a high-bandwidth network connection, feeds Web content to a computer or other Internet device much more quickly than does a low-bandwidth connection. With a broadband connection, computer technology can disappear from the Internet users' immediate field of awareness and the content of the communication

comes to the fore, as with other mediatized performances, such as those on music recordings, radio, videocassettes, DVDs and television.

The focus of this dissertation is on “media streaming” – a term often used as a synonym for webcasting, because the audio-visual signal is transmitted in real time rather than downloaded and then viewed. Streaming media technology works quite differently from the way text and still images work on web pages. Text and image files are small, and it is more efficient to pull them from the originator’s server to the visitor’s web browser and let them reside on the visiting computer while they are being viewed. Before the invention of media streaming, audio and video files, which are larger than most text and simple images files, had to be downloaded in their entirety, a slow process, before they could be played. Streaming media technology was designed to enable the playback of audio and video files without the need to first download the whole file. Shortly after clicking on a sound file icon or hyperlink, the audio or video starts playing while the rest of the data on the file is being transmitted over the network. Thus, file size become less of an issue and clarity of audio and video became the prime concern of streaming media technology developers and users. The sound and video quality in the first few years of streaming media was nowhere near the standards established by radio and television, and due to lack of broadband Internet connections, the stream was often interrupted because congestion on the network blocked the smooth reception of the streamed file. In the few years since the introduction of streaming media technology, better codecs, which are released and

upgraded periodically, have improved the quality of sound and vision available through webcasting.¹³

The Internet industry is preparing to make the “broadband age” the next phase in the evolution of moving image technology. The February 2002 issue of the professional Internet magazine *Web Techniques*¹⁴ shows a laptop computer turned into a 1950s style drive-in movie theatre. The laptop/drive-in screen shows a CinemaScope-style announcement: “IN BROADBAND” and the words “WITH STREAMING” appear in smaller type under the giant announcement. The cover story deals with content distribution network providers which enable faster Internet connection speeds that can deliver near-television-quality video on the Web. The whole issue presents articles related to broadband and streaming media. Articles have titles which range from “Streaming Media Steps Up to the Plate” to “Interactive 3D with Shockwave” and

¹³ Codec is short for compressor/decompressor or coder/decoder and refers to any technology designed for compressing and decompressing data. Software, hardware, or a combination of both employ codecs in ways which are most often invisible to domestic end users. In the context discussed here, codecs refer to technology employed on sound and video files to make them take less disk space. The most well known codec is probably MP3, which is simply the file extension for video compression standard MPEG, audio layer 3. There are many different codecs, and some are used for both streaming and full-download methods of distributing digital multimedia. Ben Waggoner discusses the main codecs currently used in streaming video in an issue of *DV Magazine* (Nov. 2001), also available at <http://www.dv.com/magazine/2001/1101/waggoner1101.html>

¹⁴ *Web Techniques* first appeared in 1996. In March 2002 it was renamed *The New Architect*. The issue mentioned here is also available online at <http://www.newarchitectmag.com/archives/2002/02/>

“Does Your Site Need Streaming Media?” to “Broadband and the New User Experience.”

Residential broadband Internet access, which allows users to connect to the Internet via cable television infrastructure or digital subscriber telephone lines known as DSL, did not arrive until 2000, while high-speed Internet access has been available for more than a decade at universities and corporate settings. As early as 1995, Chris Carlsson, co-founder of San Francisco-based radical magazine *Processed World*, anticipated what could be achieved through residential broadband Internet access. He believed that the rise of residential broadband “*could* promote horizontal communication in ways that undercut the univocal voice of the dominant society” (Carlsson 1995: 242 – emphasis in original). However, Carlsson also warned of the implications embedded in the rise of access to the Internet via affordable broadband connections signal. The benefits of residential broadband are also evident to corporate media and other controlling entities worldwide who are already seeking to dominate the use of the Internet into a channel for consumption as they have already done with other media. Drawing on ideas from Guy Debord’s *The Society of the Spectacle*, Carlsson cautions that interactivity offers a false sense of participation since it can be a means for corporate and commercial interests to exercise social and cultural control as they do through other mass media. His warning may seem somewhat alarmist to some, but there is no denying that it is something that should be reckoned with. If there really is

a threat to the Web as an open medium, it would be negligent of any independent web content producer to ignore it.

Howard Rheingold argues that *enabling technologies* and scientific-technological *convergence* are the two most powerful forces in technological change.¹⁵ Enabling technologies are those which make other technologies possible. The wheel, electricity, and lenses are all examples of enabling technologies. Computer networking is the main enabling technology for the Internet, and the Internet itself is the prime enabling technology for the World Wide Web. *Convergence* integrates existing technologies. When either a price barrier or a performance threshold is crossed by one or more enabling technologies, media convergence, faster connection speeds, more efficient content delivery, as well as better and more content will follow.

Until the late 1990s, before the Web became a widespread domestic device, convergence in electronic media was generally referred to as interactive television. The term *Interactive Television* is not as commonly used now as it was in the 1990s, but the idea of an enhanced TV experience is still very much with us. Very soon, either TV and the personal computer will converge to offer interactive access to entertainment and information in one interactive device, or entertainment and

¹⁵ See H. Rheingold, *The Virtual Community: Homesteading on the Electronic Frontier* (Reading, Mass.: Addison-Wesley Pub. Co., 1993).

information will be delivered via many devices, including mobile phones,¹⁶ handheld Personal Digital Assistants,¹⁷ and computer or television screens. Various set-top boxes are also available to hook up regular television sets to the Internet, turning the TV screen into a substitute for a personal computer for simple email use and web access. Microsoft's MSN TV (formerly known as WebTV) and AOL Time Warner's AOLTV are both examples of this technology. The TV set turns from simply a receiving monitor for television signals to an Interactive device through which the Internet and other proprietary networks can be accessed.¹⁸

OpenTV is another important supplier of set-top driven interactive television, operating mainly outside the United States. In some ways, OpenTV offers more interactivity than other companies focused on the North American market. Game show lovers in the United Kingdom and other European countries, for example, can play

¹⁶ On January 2, 2001 Bloomberg News reported that Japanese newspaper Nihon Keizai had announced that Japan's government has decided that mobile phones developed in the next five years should be able to receive digital television. These advanced cell phones will be designed to receive and transmit data much faster than the 3G phones currently available in some markets. Sony and Microsoft were named as the private companies that would work with the state-owned Japanese broadcasting organization and others toward development of the phone. Analog TV broadcasting will be phased out over first 10 years of the twenty-first century.

¹⁷ The best PDAs are already examples of convergence at work because they can function as a cellular phone, fax machine, email device, MP3 walkman, and personal organizer, all in one unit.

¹⁸ Tracy Swedlow's Interactive TV Today [itvt] website is one of the best information resources about interactive television. [itvt] has been available online www.itvt.com since early 1998. Among other things, this website contains a very helpful glossary and a ScreenShot Gallery featuring stills from interactive television programming from various TV channels in the United States, Britain and other countries.

along with their favorite show and sports viewers can choose from customized camera angles and watch instant replays on demand during certain soccer matches on OpenTV.¹⁹ Expensive hardware, extra subscription fees, and lack of technical standards slow the adoption of this mode of convergence from catching on in more households.

There are two directions in the convergence between television and the Internet. Computers are being upgraded into television receivers, integrating broadcast content with Internet content and personal material relatively seamlessly. The boldest move in this direction came in the summer of 2002 when Microsoft introduced Windows XP Media Center Edition, designed to turn the PC into a “consumer entertainment device” bringing together live television, video recording, digital images and music, and DVDs into one device.²⁰ At the same time, TV sets are being enhanced with computer components such as hard-drives, keyboards, and internal memory through set-top boxes. AOL's plan to offer an integrated cable television service with the AOLTV box is the strongest indication of a move in the direction of enhanced TV sets. Following America Online's merger with Time-Warner on January 11, 2001, AOL is now not only the largest Internet service provider in the world but it also has the most extensive entertainment archives full of content with which to attract typical consumers. The introduction of residential broadband has shown that technology designed for cable

¹⁹ For the latest news and developments from OpenTV see <http://www.opentv.com>

²⁰ See <http://www.microsoft.com/windowsxp/mediacenter> for details.

television can be used to transmit Internet content to computer users employing two-way cable modems.²¹ The flow of Internet signals over cable television networks follows as a logical step in the evolution of cable television.

The Internet can be used to broadcast regular television signals displayed either on computer screens or on TV sets. While none of the major television networks have tried to use the Internet this way, there are some experiments of this on the Web.²² Some of them are breaking broadcast copyright and distribution laws outright, while others are disguised as enhanced aspects of existing television programming. Low-bitrate video is being transmitted over the Internet as an embedded component of web pages, the format adopted through webcasting technology over the past five years.

There is a small number of Internet-based video offerings, for example CinemaNow, NetBroadcaster, and Like Television, which offer feature films and shorts on a pay-per-view basis.²³ Such Internet-based services are on the rise and there are also many audio only broadcasts. Most of the audio webcasts are from radio, either streamed live or specific segments offered for on-demand listening. Streaming audio is far less

²¹ The same is possible, but apparently not practical, with wireless two-way broadcasting.

²² See, for example, MSNBC live online video at <http://www.msnbc.com/m/lv> and other TV channels from around the world at <http://www.jumptv.com> and <http://www.malta.tv>

²³ These services are available online at <http://www.cinemanow.com>, <http://www.netbroadcaster.com> and <http://www.liketelevision.com>.

technically demanding on the Internet than streaming video. It naturally follows that there is more high quality audio than video in this format.

Telecommunication regulations as well as economic concerns dictate the pace of such technological development. AOL's merger with Time Warner has made it hard for Microsoft to compete in such a setting since it does not own cable television infrastructure like AOL-Time Warner. Microsoft has however formed an important partnership with another major media corporation, NBC. Together they have formed MSNBC which has been a leader in breaking news on the Internet for several years, thanks to the infrastructure of NBC's TV network and the broad user-base of Microsoft's MSN built on the dominance of the Windows operating system. In 1998, MSNBC Desktop Video President Michael C. Wheeler and NBC Corporate Communications Manager Robert Silverman wrote the forward to a book on webcasting by International Webcasting Association Chair Peggy Miles, and explained that

the previously disparate worlds of television and the computer are merging, but the economic models online haven't fully jelled and all the technological issues and debates are not yet resolved. [...] The end game is all about getting convergence to mean something to consumers weaned on 50 years of watching television in a linear format on sets that actually behave the way they're supposed to. [...] And the convergence of TV and computers won't mean a thing unless we end up with the reliability of television coupled with the customization potential of computing. Not vice versa. (vii)

Wheeler and Silverman argue that broadcast and cable networks, radio outlets, and Hollywood studios have the advantage in a multimedia environment of desirable

content popular channels of distribution, and large marketing budgets. However, independent content producers without the financial means of corporate media outfits can still exploit the open nature of this new medium to reach audiences which they could not reach otherwise.

Understanding the power of broadband and the potential of media convergence is essential for exploiting this technology. In this dissertation, we will see how and why Franklin Furnace and other independent Web content producers have identified webcasting as a means to disseminate their work and ideas. The basic aspects of webcasting, what it is and what can be done with it, are the subject of the next chapter.

Chapter 2

WEBCASTING

Unless you had access to the Internet when Franklin Furnace Archive Inc. sold its downtown Manhattan premises in 1996, you may have thought that on its twentieth anniversary Franklin Furnace had simply sold its collection of artists' books to the Museum of Modern Art and ceased to present performance art in New York City. At that time, organization founder Martha Wilson was convinced that Franklin Furnace needed "to operate in the same economic culture as the increasingly pervasive electronic mass media, and thus proceeded to establish a strong electronic presence."¹ She founded Franklin Furnace as a nonprofit organization in 1976 in a commercial space on the ground floor at 112 Franklin Street in downtown Manhattan, which also served as her home for more than ten years. The rest of the building was occupied by artists. The original incorporators of Franklin Furnace, jazz musicians Nancy Sheraga and Vito Suppa, lived in the basement. In 1981, Franklin Furnace took over the lease to the basement and turned it into a performance space. Eventually the organization

¹ In the summer of 2001 I interviewed Martha Wilson extensively about the activities of Franklin Furnace since 1976. I have also had countless conversations with her about the history of Franklin Furnace. Most of what appears about Franklin Furnace in this chapter is based on information I gathered from my interviews with her. An edited version of these interviews is forthcoming in *TDR*.

bought the space, but in 1990 they had to close it down after an incident with the fire department.

Sitting in her sister's kitchen in Olympia, Washington, in the summer of 1995, after struggling to keep her organization's performance program going at various venues in downtown New York City, Wilson figured out what Franklin Furnace's place in art history should be. She realized that when people looked back at Franklin Furnace and its role in the history of art, "they're going to remember Karen Finley, but they are going to forget that the floor was made of blond oak." She was now confident that they needed to dispense with the whole building, move away from a physical space and go for a virtual space.

Wilson's initial drive was to present performance art on television. She even went as far as meeting with senior producer Lorne Michaels from NBC, and other television executives from MTV and Ovation, only to discover that most performance art is "not suitable for television," even though her show-reel was produced in a professional setting on a \$10,000 budget. By the fall of 1997, Franklin Furnace had signed a contract with Pseudo.com to start webcasting performance art on a regular basis. At around this time, the Internet had gone from being a text-based medium to one created from the convergence of various pre-existing media, bringing together key aesthetic and technical elements from radio, television, theatre, performance art, film, interactive telecommunication, and the new technology of streaming multimedia.

Aesthetic standards for webcasting are somewhat different from broadcast standards, not only because the equipment used for webcasts tends to be less sophisticated and the producers self-taught, but also because the Web is a different medium. In this chapter, I will discuss the basic types of webcasting employed by Franklin Furnace and subsequently argue that, in terms of its aesthetic development, the Web is now where cinema was in the first decade of the twentieth century. This standpoint can help us assess the potential of this new medium without forgetting that it is still very much in its infancy.

2.1 What is Webcasting?

Webcasting is a form of online performance in which text, audio, and still or moving images are presented through websites either as live events or as archived material available for on-demand screening. The content of webcasts varies from elaborately staged and edited productions to quotidian real life occurrences seen through a simple video camera. In many cases, webcasting is an additional component of an existing performance, just like a broadcast of an event, but webcasts can also feature performances created solely for an online audience. Examples of this new hybrid form

of performance can be seen all over the Internet,² from webcams showing people going about their everyday business to performance art productions made exclusively for the Internet, such as those produced by Franklin Furnace since 1998.

Importantly, webcasting not only allows people to consume, but also to produce. As the numerous personal web pages linked to the World Wide Web clearly demonstrate, creating an online presence beyond email and instant messaging is fairly easy. And creating web experiences with audio, video, and even interactive elements such as live chat, is easier than producing for television or film. To create a webcast, whether live or available on demand, all you need is a video camera, at least one microphone, an encoding application, an Internet connection, and, if you want to get adventurous, video editing software; pre-produced footage can be used instead of, or along with, the images captured by the video camera. The cost of the basic equipment has gone down considerably over the past few years, and digital audio-visual technology tends to facilitate the production of high-quality production on much smaller budgets than what was possible with analog equipment, up to just a few years ago.

² Yack.com is an online guide which lists hundreds of thousands of hours of streaming media available daily on the Web, mostly free of charge and on-demand. There are over 10,000 streaming media sites on the Web, sometimes also known as web channels. Yack.com also operates the Event Producer Network (EPN), a producer-friendly network which gives events and programs a place along other syndicated and co-branded products. Yack.com's EPN claims 13 million (or one half of all) consumers who regularly seek online programming. See <http://www.yack.com>

The technical details presented in industry publications about webcasting become outdated quickly.³ Companies go out of business or shift their basic methods for delivery and reception of streamed media constantly. Other recent publications about webcasting deal with only one specific brand of delivery/reception technology at a time, and as anyone who has ever experienced a webcast knows, there are at least two major brands servicing this field, RealNetworks and Microsoft. I have therefore put together a brief account of webcasting focusing on the basic technology and the methods of delivery and reception as it relates to the actual webcasting projects I will be covering later.

During webcasts, text, audio, and still or moving images are presented through the World Wide Web, most times as websites, either for a telepresent audience or as archived material for on-demand screening.⁴ Also known as “cybercasting,” “netcasting,” “streaming media/audio/video,” and “video on the web,” webcasting requires an appropriate computer application such as RealPlayer or Windows Media

³ I am referring specifically to books like J. Keyes, *Webcasting: How to Broadcast to your customers over the Net* (New York: McGraw Hill, 1997) and P. Miles, *Internet World Guide to Webcasting* (New York: John Wiley, 1998), which cover many aspects of webcasting, from how to choose the appropriate technology to how to develop content strategies including marketing and legal issues.

⁴ Webcasts can also be presented directly through a web media player without the use of a conventional website. This is not a widespread practice because it involves the use of Synchronized Multimedia Integration Language (SMIL, pronounced “smile”) designed for authoring interactive audiovisual presentations. See <http://www.w3.org/AudioVideo/> for details.

Player.⁵ RealNetworks and Microsoft have created proprietary technology for streaming media, compete on which will become the standard, and seek to dominate the enormous market for both producers and consumers of webcasting.⁶

The first significant technical development in webcasting occurred in April 1995 when the Seattle-based company Progressive Networks launched a program called RealAudio. Progressive Networks was founded by Rob Glaser, who had just left his position at Microsoft as vice president of Multimedia and Consumer Systems. The first version of the RealAudio application provided only on-demand audio, and no live signal delivery. Later that year, the company released its live-capable RealAudio System. The first live webcast presented on real.com was a radio coverage of a baseball game played on September 5, 1995, between the Seattle Mariners and the New York Yankees. Within a year, a stable version of the RealAudio Server became available, and in February 1997 Progressive Networks launched RealVideo, allowing

⁵ Although most of the details about the Windows Media Player presented here refer to my own experience using the Windows operating system since 1989, Microsoft offers a detailed history of its own called “Digital Media Timeline in Windows” - available at <http://www.microsoft.com/windows/windowsmedia/press/dmtimeline.asp>.

⁶ QuickTime is another significant steaming media format, created by Apple Computer Inc. mainly for people who prefer their machines. It is a somewhat popular format, and technically competitive with Real and Windows Media, however, its use is not as widespread. In 1997 Apple entered into an extraordinary 5-year agreement with Microsoft whereby the software behemoth would continue to develop the prevalent Office software suite for the Mac, and Apple would bundle Internet Explorer in all new Mac computers. As part of this Office-Explorer trade-off, Microsoft purchased \$150 million in Apple stock and Apple dropped a long-standing operating system patent lawsuit.

people to receive live video streaming over the Internet at their personal computers.⁷ Meanwhile, with Microsoft's Windows 95 came the first major upgrade of the Windows Media Player.⁸ This version supported various codecs including the MPEG-4 codecs, standardized in October 1998 for transmitting video mixed with text and graphics over narrow bandwidth.⁹ In October 1999, the Window Media Player developed for Windows 98 second edition integrated streaming media function from NetShow, a stand alone application which was specifically developed by Microsoft with its own codecs for streaming multimedia content over the Web.¹⁰ Until that time,

⁷ By August 1997 the company claimed that there were 20 million RealAudio and RealVideo players in distribution. Soon after that, Progressive Networks became RealNetworks, Inc. and was listed on the stock market.

⁸ Microsoft's Windows operating system has had a digital audio and video player pre-bundled with it since Windows version 3.0 in 1991. The audio format came with the extension WAV while the video extension was AVI. Until the summer of 1995, when Windows 95 was launched, double-clicking on any file with these extensions on a computer running Windows would automatically evoke the Windows Media Player.

⁹ MPEG-4 is also known as MP4, but this is slightly misleading since MP3 is not really a codec but the third audio layer of the MPEG-1 codec. Still, MPEG-4 or MP4 has been pushed by the MPEG-4 Industry Forum which according to the mission statement at www.mp4if.com aims to "to further the adoption of the MPEG-4 Standard, by establishing MPEG-4 as an accepted and widely used standard among application developers, service providers, content creators and end users." MPEG-4 has not been easy to adapt as a standard because of a plan that would require licensees to pay 25 cents for each MPEG-4 encoder or decoder, as well as a scheme to charge a per-minute use fee, equivalent to 2 cents for each hour of content encoded in the format. On June 4, 2002, Apple Computer Inc. announced that it was going ahead with its adoption of MPEG-4 as a standard for its Quicktime video player (<http://news.com.com/2100-1023-932129.html>). For a more comprehensive index of MPEG resources and news see www.mpeg.org or <http://mpeg.telecomitalialab.com> for the official website of the Moving Picture Experts Group (MPEG), a working group of ISO/IEC in charge of the development of standards for coded representation of digital audio and video.

the Windows Media Player had sat on most people's computer without being noticed much.

The big change came in 2000 with the release of Windows Media Player 7 which included a number of new features, such as a media guide, CD creation capabilities, playlist support, and other such digital media amenities. Since the release of Windows XP and version 8 of the Media Player, the application is now also the default DVD player on personal computers with a DVD drive, and appears on the XP computer desktop unless deliberately removed by the user. Besides being bundled with Windows, Microsoft's Media Player is also available for free from the web. RealNetworks offers limited versions of its software for free, but charges for the full versions. And while RealNetworks charges high fees for its server software, Windows Media's server component has been bundled with Windows Server products since 2000, without extra charge. In spite of all this, RealNetworks still commands a solid presence in the streaming media industry. Microsoft is RealNetworks' only real competitor. As we shall see in Chapter 5, this struggle to dominate the technology is of interest to independent webcast producers because it has implication for the control on the current methods of delivery and reception.

¹⁰ Microsoft had already released two versions of the NetShow client before its functions were integrated into the Windows Media Player.

2.2 Methods of Delivery and Reception

The Internet terms *push* and *pull* signal how webcasting is different from broadcasting via other media. On the Internet, the process of pulling involves a request for data from another computer or bank of computers. When data is sent without a request being made, whether directly or indirectly, the process employs push technology. Push technology is designed to increase speed and reduce network traffic, but the basic concept of push can be compared to the function of other media.¹¹ Both radio and television broadcasting are built on a push model. Each channel pushes its programs to the listeners/viewers. The web is built on a pull model. A page or other content is usually not delivered until a user requests it through a browser. The use of push technologies, however, is utilized to broadcast information over the Internet too. E-mail was the first and remains the most widely used online push technology. You receive email whether you ask for it or not.

The use of push technology has its advantages on the Internet because you can custom-order information to your personal taste and needs, such as particular sections

¹¹ Push was one of the Internet buzzwords around 1997, but it is hardly ever mentioned now, even if the concept is still around in enhanced formats through portal integration, Dynamic HTML, XML and other more recent developments in delivering a personalized experience on the Web. The foremost example of online push technology is the PointCast Network. PointCast was the first and most successful provider of such services, however, the company fell victim to frenetic technological changes in the Internet industry, and in April 2000 EntryPoint, a company which acquired Poincast a few months earlier, shut down the service. Other companies such as BackWeb, and Marimba have offered similar products over the years but have now repositioned their push initiatives toward other services, including dynamic web portal technology.

from an online news service, rather than getting a number of sections you never read, as with a newspaper. From the producers' point of view, this process also reduces the traffic load on Internet servers because less unnecessary browsing occurs. They can also use push technologies to instantly sort and provide materials based on each user's individual interests instead of sending out their message into the ether for whoever is around, and only possibly interested.

In broadcasting, the pull model is known as *narrowcasting*. Various democratic countries encourage local governments to require local cable television operators to provide equipment, facilities, and channel space for public, educational and government access on local cable systems as compensation for the cable companies' use of local rights-of-way such as publicly-owned city streets and buildings.¹² In many cases, this applies to radio too. The primary resources for such public access services often come from cable companies, but city or county administration funds are frequently provided to strengthen the resources available for the access. This mass communication model consists of video programming produced on all creative and

¹² In the United States the Federal Cable and Telecommunications Acts of 1984, 1992 and 1996 provide for this. The Alliance for Community Media, a resources advocacy organization for community-based media access active since 1976, reports that through cable TV access centers, thousands of community groups and over one million individuals produce more than 20,000 hours of new local programming each week in the United States: this amounts to more than all programs produced by the four major networks (CBS, NBC, ABC, and Fox) and PBS combined. The Alliance for Community Media website at <http://www.alliancecm.org> lists over 1,000 organizations in the United States providing public access media services.

technical levels by community volunteers, sometimes assisted by trained professionals.

Narrowcasting lets programmers target particular segments of their local community. When done right, public access serves a wide range of individuals and community-based non-profit organizations who do not have the resources, tools, or staff to fully utilize the electronic media. Their work usually benefits children, the elderly, the homeless, the disabled, immigrants, minorities, artists, educators, religious organizations, and others who are otherwise underrepresented in the mainstream commercial media. Within this framework, anyone with the time and inclination to do so can be a provider as well as a recipient of information, participating in a public debate via cable television.

Many cable access facilities teach media literacy and video production through a pool of volunteers who create community-based programs and help others needing assistance. Most of them do it on a non-discriminatory basis, at low or no cost. Video production facilities and equipment have been available for public use this way for quite some time, and now several such centers are upgrading their operations to include webcasting. I have personally witnessed Manhattan's Downtown Community Television (DCTV) using webcasting to extend its airtime on the Manhattan

Neighborhood Network cable access channel.¹³ When its time-slot on MNN Channel 35 ends, DCTV's live shows continue online on a regular basis.

In April 2001, Franklin Furnace teamed up with DCTV to present Argentinean artist Anahí Cáceres both online and on cable television. Cáceres' somewhat obscure piece, entitled *YIWE*, was thus presented as part of DCTV's ongoing series called *Live From Downtown*. Each episode of this series consists of three basic components: a live performance, a video documentary created by DCTV's production team and an interactive Q&A between the featured artist, the live studio audience and the online audience. The Internet audience is invited to ask questions or comment on the show either via email or by text-chatting on DCTV's website with the show's chat-jockey.

Cáceres' work consisted mainly of an interactive installation reconsidering historical aspects of pre-Colombian cultures by assigning contemporary values to old artistic and ceremonial concepts. For several minutes, the artist and her collaborators stepped around the studio floor, in movements similar to Jackson Pollack's action painting, triggering electronic sensors that manipulated an electronic image of an ancient Mapuche ritual object, the *Yiwe*, which is a solid silver libation receptacle engraved with ceremonial symbols from the southern tip of South America.

¹³ For DCTV's history, mission statement, and current projects see their website at <http://www.dctvny.org>

The work was presented to three audiences simultaneously: the audience of about thirty people at the DCTV studio, the MNN Channel 35 cable TV viewers, and the Internet users who viewed the live webcast. *YIWE* was immediately followed by a discussion with the artist and Martha Wilson, including questions from the studio audience and the online viewers who participated through the live chat interface on the DCTV website, pre-recorded Internet video-chat questions, and emails to the TV show. Wilson later told me she believe that the experience “was compromised by the fact that there were three gods to bow down to in one event: the cable audience expected TV-style applause, and so the live audience was prompted by DCTV staff to perform for them; and the Internet audience got short shrifted because there are no conventions yet.” Since then, Franklin Furnace has not presented any more artists at DCTV, but the community cable TV organization has continued to evolve its own “cyberstudio for the arts.”¹⁴

Other organizations are preparing their facilities for the Internet as a complement to public access television. As the technology gets better and more affordable, they will use the Web not only as an extension, but also as an alternative channel, to the limited cable TV program time provided to them by their neighborhood cable company.

Although the number of people actually participating in online webcasts is still proportionally very small, webcasting has the potential to turn narrowcasting into a

¹⁴ See <http://www.dctvny.org/cyberstudio.html>

new sort of broadcasting. Online streamed media makes narrowcasting work in the best possible way. As long as the web is an open access medium, anyone who is interested in presenting their work online can do so without great technical difficulties. A virtually global audience interested in any specific subject can interact with other people who share their niche passion. At the same time, anyone creating online content has the potential to reach the same global online audience as a corporate media organization does. Good marketing still requires huge budgets, but online marketing is cheaper than traditional marketing since for example sending one email costs practically as much as sending several hundred thousand. This has not gone unnoticed by entrepreneurs who have attempted to create alternative online networks aimed at a mass audience.

2.3 Doing Things with Cams

There are various other individuals and organizations who use the Internet as an alternative communication channel in ways similar to community cable-access TV. Of all these others, CameraPlanet.com, deserves a special mention because it takes this model one step further by giving cameras to its viewers and inviting them to shoot their own stories. CameraPlanet.com is an off-shoot of BNN, an independent media company with great aspirations and impressive achievements. It is run by founder Steve Rosenbaum who comes from a corporate media background. He applies corporate marketing techniques to what we have come to know in mainstream media as *reality television*, with shows like *Real TV* (distributed by Paramount Domestic

Television) and MTV's *The Real World*. Before the recent surge of popularity in reality television, such shows took actual footage of both unusual and ordinary events not staged for a camera and presented them as entertainment. This concept has also been exploited by Hollywood film productions like *EdTV* (1999) and *Series 7: The Contenders* (2001), which feature the lives of "ordinary people" captured on camera for public viewing.

Although most viewer contributions on CameraPlanet.com are produced as if they were segments from a reality television show, there is still a good opportunity for anyone to tell the world what matters to them in their own words and images.¹⁵ Still, a less controlled option for such activity remains with live webcam sites which eliminate any controlling third party between what happens in front of the camera and what goes out on the web.

The popularization of reality television with shows like *Survivor* and *Big Brother* has somewhat changed the dynamics of reality television productions. Now there is an interplay between random reality and artificially-induced reality. While these reality

¹⁵ To my knowledge, CameraPlanet.com is unique in giving equipment to Internet users to create webcasts, however, it is not the only website which provides free web server space for other people's webcasts. Another such website is ExtranetTV (available at <http://www.extranettv.com>) and there are many more such websites seeking to provide free or low-cost server space in return for the right to stream unique online content. And it is not only video that generates this sort of interest on the Web, as can be witnessed from Live365.com which is a large community network where users "create and listen to independent audio broadcasts" of various music styles and talk subjects.

TV shows are *based* on real situations, these same situations would most probably not occur if it were not for the television production. My Performance Studies colleague Terri Senft claims that homecamming “extends the tropes of reality TV by making it possible for anyone to broadcast their daily lives to the world” (2002: 26). The proliferation of webcams is also influencing television aesthetics. An aesthetic aspect of webcams and live webcasts that has been emulated by mainstream television is the real-time factor. Two such television productions premiered on American network television in the 2001/2002 season, *24* and *Watching Ellie*. *24* is a dramatic series depicting the goings-on around a U.S. presidential candidate and a plot to assassinate him on the day of the primary elections in California. This TV drama literally runs against the clock which is shown prominently on the screen before and after every commercial break, as well as during strategic moments in the plot.¹⁶ Each episode lasts exactly one hour (including commercial breaks) and depicts only actions in real time during the corresponding hour on that day.¹⁷ In the same way, *Watching Ellie* is an unusual sitcom written and created for NBC Studios by executive producer Brad Hall.¹⁸ Each episode of *Watching Ellie* depicts a twenty-two-minute slice from the life of a fictional Los Angeles jazz singer played by Julia Louis-Dreyfus. Unlike *24*, the action in *Watching Ellie* is frozen during the commercial breaks.

¹⁶ For hour-by-hour plot details and various other things related to this series, including fan fiction, see the show’s official website at <http://www.fox.com/24>

¹⁷ The producers of *24* took slight liberties with this format during the second season, but the idea remains somewhat similar.

¹⁸ Details about *Watching Ellie* appear at http://www.nbc.com/Watching_Ellie

Live webcams hardly approach the visual elegance of these television productions, but they still depict actions in real time. Apart from the fact that almost all webcam sites depict aspects of reality, they differ from television, which uses complex media technology, multiple cameras, special lighting, incidental music, and so on. By contrast, the basic setting is the same for all webcam sites, even if they don't all employ the technology in the same way. The format common to all is that of a simple video camera sending "live" images to a website.

Cameras designed for use on the web, such as those made by Logitech, Creative, or Alaris, are easy to install and use. Most computers manufactured since 2000 come with standard plug-n-play USB ports for webcams, and the software is quite straightforward to install. What's more, webcam prices have not only come down in the past couple of years, but several Internet Service Providers, like Earthlink and Verizon.net, to name just two which I have used most recently, offer a free webcam to new broadband subscribers. All these factors are contributing to the rising popularity of webcam use not only for webcam sites, but also as nannycams, security cameras, or for videoconferencing over the Internet.

This same basic equipment can produce three different types of webcam sites. Cams pointed at everyday events: these would include streets, buildings, people at work and other such public or not-so-public activities. Cams pointed at particular activities that

in themselves are designed to attract attention off-camera: a good example of this is radio studio cams. Cams pointed at everyday or particular activities that are otherwise not accessible to an audience in any way outside the physical space where they occur: all cams which give a glimpse of otherwise private activities including personal webcams and cams on sex sites.

In her study on women and homecams, Senft points out that there are five types of homecams, which I have just clustered in the third category. The five types are “life cams” which captures everyday occurrences for their own sake, “life as art cams”, “porn cams”, “house cams” that show a room or rooms in a house regardless of whether there is any human activity in it but the focus is on a group of people rather than just one person. The “house cam” arrangement resembles Close Circuit TV which is mostly used for surveillance and security purposes. The fifth type of webcam site in Senft’s schema is the “community cam site” which brings together several webcam enthusiasts creating an experience of a club for both cam-owners and their viewers.

Most webcam sites do not transmit a full-motion video image, mainly due to bandwidth limitations. In such a set-up, the webcam collects snapshots and sends them to a webpage at regular intervals ranging from once or twice every second to once or more times every hour. As residential broadband becomes more popular, more webcams can transmit at refresh rates that simulate full-motion video, making this

format more appealing to a greater number of Internet users, both watching and performing on webcam sites.

This type of webcasting is slightly less appealing to corporate media organizations than full motion streaming media. Most times, this format makes for an intimate, almost one-on-one, style of interactive webcasting, which is why it is perhaps most popular with sex sites as a new version of the peep show. The adult entertainment industry is very active online. Anyone who uses the Internet regularly knows this from unsolicited email marketing to bizarre search engine results for words or topics which seem most innocent at face value, words like girl (as in “young female human being”) or teen (as in “someone between the age of thirteen and nineteen”). iFriends.com, for example, is a members-only community cam site which features general interest groups on topics like psychic advice and cooking, but such themes are only embraced by a very small part of this cam community. The vast majority of members on iFriends.com, also known as the Internet Friends Network, are sexually-oriented adults only webcam users and viewers. At the other end of the webcam spectrum are sites like WebCam Central (www.camcentral.com) where regular visitors can create a custom page with their favorite webcams ranging from public location cams like streets, beaches and harbors to famous landmarks around the world. Another webcam site, WebCam.com, is a source of information about webcam hardware and software as well as a simple directory of cam sites divided into four categories: people, places, things, and adult.

In the context of this dissertation, I am particularly interested how people on the margins of mainstream culture, who are not necessarily interested in adult entertainment, are using webcams for other purposes. Videoconferencing over the Internet is a webcasting technique that is often favored by people who realize the power of the Internet as a unique medium, which can help them reach a broader audience than they can through the traditional channels of communication.

2.4 Videoconferencing on the Internet

Videoconferencing is not strictly an Internet-based technology but it has acquired a new status within the field of telecommunication with the popularization of the Internet.¹⁹ As I write this in 2003, the Internet still does not support solid videoconferencing communication as do regular telephone lines, frame relays, ISDN

¹⁹ I am greatly indebted to Eric Miller for much of my non-Internet videoconferencing experience. His work on videoconferencing as a medium for performance and teaching of verbal arts introduced me to the value of this technology in relation to my own work. On December 1, 2000, the Performance Studies Issues and Methods class at NYU's Department of Performance Studies participated in a videoconference organized by Eric Miller at the Folklore and Folklife Program, University of Pennsylvania. I facilitated the New York end of the videoconference since I was a teaching assistant for this NYU class. The main topic discussed during this videoconference was the problem of liveness in Performance Studies. On April 20, 2001, we organized another videoconference between my students at NYU and students at the University of Pennsylvania. This time the videoconference was attended in New York by students enrolled in a graduate-workshop about live art on the Internet, which I co-taught with Martha Wilson. An audio-video recording of this second videoconference is available as an on demand webcast at http://ccat.sas.upenn.edu/videoconference/series/April_20.html.

lines, and other point-to-point wireless circuits, including satellite links.²⁰ Notwithstanding the inferior technical quality of videoconferencing via ordinary Internet protocol, the popularity of this form of telecommunication is on the rise as the number of residential broadband access subscribers increases.

Videoconferencing on the Internet is practiced widely through iVisit and a handful of other applications. The most popular Internet-based videoconferencing application is Microsoft's NetMeeting which first appeared in 1996 as an audio-only tool and now comes bundled with the latest versions of Microsoft Windows operating systems. NetMeeting's audio quality is excellent, and the video quality depends mainly on the type of camera and Internet connection used. People who use Apple computers tend to use iVisit more than others, mainly because NetMeeting is only available for the Microsoft Windows platform. Most Instant Messaging applications now support videoconferencing too, but this feature is still under development on all Instant Messaging networks. The audio conferencing facility on iVisit has not been developed to a satisfactory level, so most users use it mainly for its multiple video-window function. The current version of iVisit is a text-based chat network with multiple-user video support. In this version, it has been used by Lizbeth Goodman and

²⁰ In the spring of 2002, at New York University, I saw excellent quality videoconferencing on Internet2 with the University of Delaware. Internet2 is a consortium led by 200 universities working in partnership with industry and government to develop and deploy advanced network applications and technologies parallel to the Internet. The consortium is recreating the partnership among academia, industry and government that fostered the Internet before the 1990s. For more on Internet2 see <http://www.internet2.edu>

Susan Kozel from the Institute for New Media Performance Research, at the University of Surrey in England, for the *Extended Body Project*, a Master's level course they offered from January through March 2001.²¹ Their research project explored the creation of an online educational environment, combining live and mediated performance within a theoretical framework of gender and performance. The *Extended Body Project* supplemented the use of the iVisit desktop video conferencing hub with a website and a CD-ROM. This project is an example of a self-referencing distance learning technological experiment. It operates in direct or indirect reference to experimental performances using Internet-based videoconferencing technology as part of its explorative apparatus.

Amy Berk and Andy Cox use iVisit to webcast their live art on the Internet. Berk and Cox are members of the agit prop art group Together We Can Defeat Capitalism, a loose collection of people who undertake anti-capitalist projects including online pieces such as *The Anti-Capitalist Operating System*.²² During the third weekend in October 2001, Berk and Cox organized an online bed-in for peace, in response to the terrorist attacks in the United States and military action in Afghanistan. The event involved these two people staying in bed, fasting, and meditating on world peace for forty-eight hours, with a webcam pointed at their bed as they communicated with other people live online. This performance was based on one devised by Yoko Ono

²¹ See the Extended Body Project website at <http://www.surrey.ac.uk/EBP/>

²² See the Together We Can Defeat Capitalism website at <http://www.TWCDC.com>

and John Lennon in March 1969 during their honeymoon in room 902 of the Amsterdam Hilton in The Netherlands.

Ono and Lennon were avidly pursued by the press, assuming that the couple, who had just appeared nude on the cover of a record entitled *Unfinished Music No. 1: Two Virgins*, would make love for their cameras. Instead, the newlyweds simply spent a week in bed speaking about world peace at the height of the Vietnam War. A few weeks later, the Ono-Lennon performance was repeated in corner suite rooms 1738-40-42 of the Queen Elizabeth Hotel in Montréal, Canada, and through the press, the public was again invited to join them in discussing the pursuit of peace, justice, tolerance and compassion. This second performance of the Ono-Lennon bed-in is probably best known for *Give Peace a Chance*, the peace-anthem which Lennon wrote for the occasion. That song remains popular now, more than thirty years later. In large part, this event was successful because Ono was a sophisticated performance artist and a founding member of the Fluxus movement, and the couple had the benefit of celebrity status through their association with The Beatles.

The Berk and Cox bed-in attracted only a fraction of the attention, and had none of the celebrity buzz. In spite of this, it is culturally significant because it marks the first time that an Internet community participated in an online bed-in for peace. The performance was successful in its own way, because although only a few hundred people, heard about it when it happened, Berk and Cox have documented the event on

a website which includes images from the webcams of some of the people who took part in the online video conference, transcripts from all the text-chat that went on October 19-21, 2001, during the bed-in for peace, edited slightly in order to be read more easily, and other relevant material. Berk and Cox were in residence at New Pacific Studio in New Zealand during this performance.²³ I joined them online for most of the time and was greatly amused by the discussions in the text-based chat, which ranged from arts funding to concerns about anthrax. A live webcast of the event was available via the iVisit video conference application and there were as many as 10 simultaneous participants at certain times.

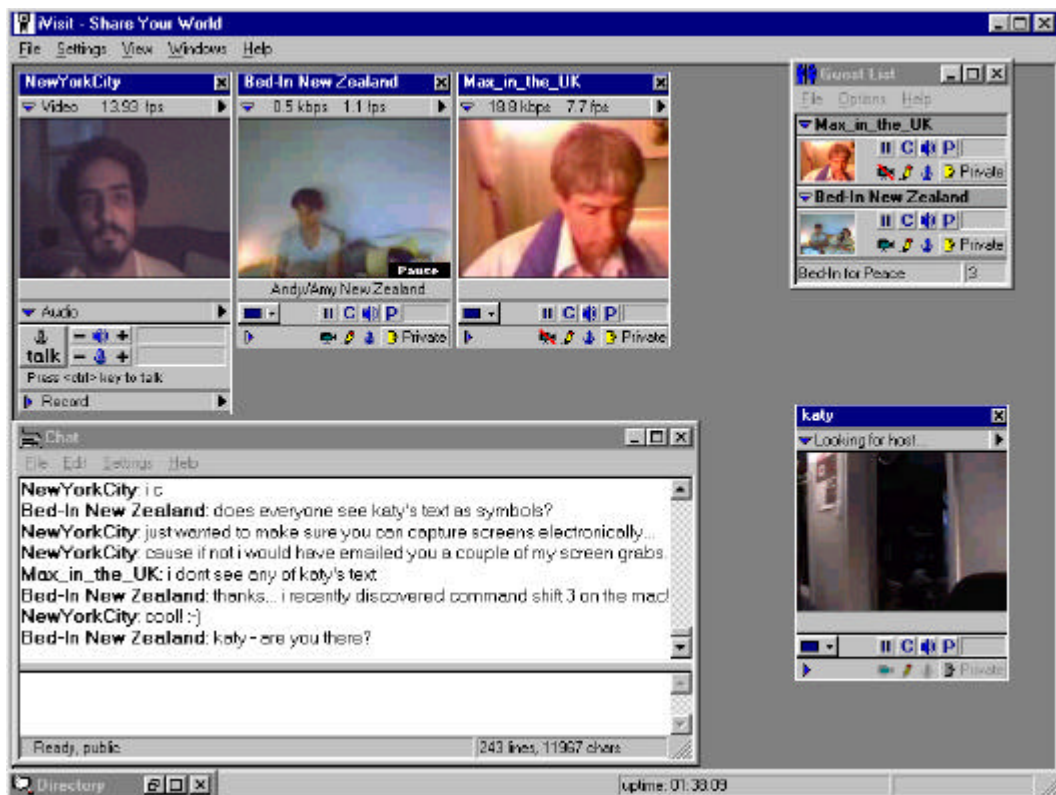


Figure 1: iVisit screen-grab from the Bed-In for Peace organized by Andy Cox and Amy Berk (Oct. 20, 2001).

²³ See <http://www.bed-in-for-peace.net>

Berk and Cox are certainly not the only artists using videoconferencing on the Internet. New York-based artist Adrienne Wortzel has used videoconferencing as an integral part of a live performance she produced before the popularization of videoconferencing over the Internet. Wortzel is very invested in online performance and has been interested in the Internet since before it became popular outside academia in the mid-1990s. In 1994-1995, as a graduate student in the MFA program at New York's School of Visual Arts, she participated in writing and performing theatrical scenarios in MOOs, which are to a great extent responsible for moving computer activity away from the one-way human-computer interaction model into a human-computer-human relationship encompassing multiple computer-users interacting over a network.²⁴ Her interest in MOOs and text-based online performance

²⁴ MOO is short for MUD Object Oriented. MOOs evolved from MUDs. MUD is short for Multi-User Dungeon or Multi-User Dimension. MUDs are computer adventure games loosely based on the popular fantasy role-playing game called Dungeons & Dragons. Roy Trubshaw and Richard Bartle started the first MUD in 1979 while studying at Essex University in the United Kingdom. Ten years after MUDs first appeared, a new kind of MUD was developed by James Aspnes, a graduate student at Carnegie-Mellon University. This new type of Multi-User Dimension, known as TinyMUD, broke away with the Dungeon and Dragons-inspired themes of all previous MUDs, and was designed as a player-extensible space with special attention to social interaction. The players themselves could now design this online place to simulate spatial configuration they desired and contain all sort of objects which could be used by all other users.

eventually led her to Juli Burk's ATHEMoo,²⁵ where she had begun to build a complete Chaucer environment, but due to other projects, and the fact that ATHEMoo is now dormant, she only managed to create the scene for the *Nun's Priest Tale*.²⁶ Burk maintains that such organized performances in MOO environments "expand contemporary and historical notions of theatricality, adding to the existing diversity of world theatre rather than seeking to literally reproduce or replace it" (1999: 130). For Burk, as for LeNoir, online productions are an extension of existing theatrical forms, building on and extending established forms of performance. She points out that the theatrical nature of MOOs "is further heightened by one of the most prominent remnants of the gaming MUDs, role-playing" (1998:237). Role-playing is popular is

²⁵ ATHEMoo has also demonstrated that the Internet is a remarkably interesting venue for scripted online performance, even if the technical difficulties experienced by everyone who used MOOs, resulting mainly from slow computers and Internet connection speeds, highlighted the infancy of the medium. ATHEMoo offered an online environment for theatre-makers and scholars to talk about theatre, ranging from playwriting to theatre history as well as teaching in the MOO environment.

²⁶ See *New Observations* (Issue #120 - Winter 1999) edited by Alan Sondheim, for Wortzel's *A Facsimile Moo Play Capture Based on The Nun's Priest Tale by Geoffrey Chaucer*, a faux MOO script, written as if it was a live capture of a MOO performance based on a tale from the Chaucer's *Canterbury Tales*. Wortzel's text is also available along with documentation about her other works on her website at <http://www.artnetweb.com/wortzel>. ATHEMoo has also served as a virtual theatre for online performances such as Karen Wheatley's *Scheherazade's Daughters* (nominated for the British National Review of Live Art in 2000) and an Austrian theatre project entitled *Oudeis* based on Homer's *Odyssey*, connecting artists and audiences around the world via the Internet. Details about *Oudeis* are available at <http://www.oudeis.org>. A full list of performance logs is available at <http://moo.hawaii.edu:7000/2966/> and four of these productions are described in Burk's essay "The Play's the Thing: Theatricality and the MOO Environment" in C. Haynes and J.R. Holmevik (eds.), *High Wired* (Ann Arbor: University of Michigan Press, 1998).

text-based online environments because of the relative anonymity offered by the medium.

Wortzel has also worked with the Pseudo Online Network where she was actively involved in the early experiments with online video, not only in New York, but also via videoconferences over the Internet from Finland and Holland.²⁷ In 1997 she also produced Starboard, ten one-hour online performances, which she describes as “a hybrid of scripting and improvisation...a realtime performing space on-line and off, a writing space, an acting-out and re-acting space, as well as a place for realtime avatars to hold discourse on the nature of life and art.”²⁸ Combinations of motifs from prior episodes were blended back each week to spark new material over CU-SeeMe,²⁹ pre-recorded video, a blue-screen studio, and RealAudio. Her most active work with Pseudo was together with fellow New York-based artists G.H. Hovagimyan and

²⁷ *Shall We Dance: An Orchestrated Ear For Multitudinous Voices* was produced and scripted by Adrienne Wortzel featuring eight simultaneous CU-SeeMe windows, some in New York at Pseudo.com. It was presented at the 7th International Symposium on Electronic Art in Rotterdam, The Netherlands, September 16-20, 1996 and is documented online at <http://www.artnetweb.com/theoricon/isea/> along with other works by Wortzel. The documentation is part of Theoricon, “a virtual amphitheater for artists working with Internet technologies to equate placeholders of the past with placeholders of the present and future.”

²⁸ See documentation at <http://www.artnetweb.com/theoricon/starboard/>

²⁹ CU-SeeMe videoconferencing software is manufactured by CuSeeMe Networks (formerly know as White Pine Software) from an basic videoconferencing application created in 1993 by Cornell University. It started out as freeware, but later a commercial version appeared with better audio, video and extended features. The official CU-SeeMe Networks website is at www.cuseemeworld.com, while an informative CU-SeeMe users' site is available at <http://www.rocketcharged.com/cu-seeme>

Robbin Murphy as co-host and content producer for a weekly online show called *Art Dirt*, for two seasons between 1996 and 1998.³⁰ Hovagimyan, Murphy, and Wortzel are founding members of Artnetweb, a network of people and projects investigating new media in the practice of art.³¹ The show featured interviews with guests from all areas of new media theory and practice, including artists and technologists. Following August 1997, *Art Dirt* included streaming video and, in its final months, ran parallel to Franklin Furnace's inaugural season on Pseudo.com.

Wortzel's webcasting work outside Pseudo.com includes *Sayonara Diorama*, a multiple-site, electronic media performance featuring a repertory company of robots and actors. The main venue for the performance was a regular theatre setting featuring actors and indeed robots, or rather, elaborate electronic puppets. The videoconferencing component worked only for anyone patient enough to download CU-SeeMe, the only Internet videoconferencing application at the time, and connect to one of two Internet servers reserved for this event. Since all this happened in the spring of 1998, it is understandable that the whole thing was experimental, at best. Yet, the concept was not only bold and daring but also rather innovative in its introduction of a telepresent audience which simultaneously served as an unknown/unscripted narrative element for the performance. In an email interview I

³⁰ *Art Dirt* is archived at <http://www.walkerart.org/gallery9/dasc/artdirt> by the Walker Art Center's New Media Initiatives in Minneapolis as part of their digital arts study archive.

³¹ See <http://www.artnetweb.com>

conducted with Wortzel, she explained that the incoming CU-SeeMe reactions to the performances, during the performance itself, “were meant to ally with, disrupt, or in any way play with in a reactive way to the scripted play. It wasn't pandemonium, it was more like a folding of one thing into another.” In 2001, Wortzel produced *Camouflage Town*, a project starring an interactive remote-control robot which transmitted live online audio and video feeds of its travels and interactions navigated either through the website at www.camouflagetown.tv or from a workstation in the Whitney Museum of American Art, where the art installation was presented.³²

G.H. Hovagimyan too has explored using videoconferencing over the Internet for a performance he devised outside his work at Pseudo with Wortzel. Hovagimyan was the recipient of a Franklin Furnace artist residency grant for 2002 season – “to exploit the properties of the Internet as an art medium” – and produced a piece called *Brecht Machine (EU Popstar)*. The audio portion of the videoconference was spoken in one language and translated into another language at the receiving end; English was used in New York and French in Split, Croatia, the two parts participating in the event. The voices going through the videoconference channel were translated at the receiving end were captured as text through voice-to-text software and the translated text was in turn read out text-to-speech software. In his proposal to Franklin Furnace for this piece, Hovagimyan claims that he is most interested in “the idea that the dictation and translation software will be doing improvisations as a consequence of their mistakes

³² The website continues as documentation about this art installation.

and misinterpretation.” I am particularly struck by the thought that experimental art employs technology that is itself in an experimental phase of development.

The main appeal of technology for videoconferencing over the Internet is that most of the software is free or very affordable, and the hardware is within the budgets of most artists working on small grants or personal funding. The same can be said for most, if not all, webcasting and associated techniques described in this chapter. The main problems are standardization and commercialization. Standardization in terms of both the technology and the aesthetics of webcasting, and commercialization in the sense that companies with huge budgets can overshadow all others to create a mainstream which is culturally dominant, as we see in broadcasting, the recording industry, and motion pictures. At the same time, the history of media, and film in particular, is useful in understanding the aesthetic development of the Internet.

2.5 LIKE THE FIRST YEARS OF FILM-MAKING

Using the Web as if it were television is no different than the early attempts in cinema to capture theatrical performances. It was only when cinema found its own language and production characteristics that it became recognized as more than a way to capture live action or performances staged for a live audience.

The lineage that connects television and the Web is similar to the one between theatre and film. Early film borrowed various elements from the theatre but it also moved

creativity to a point where it became possible to tell a story through techniques that are distinctly unparalleled in the theatre. Film found its own language once it stopped attempting to emulate staged theatre. All legitimate forms of storytelling have their own way of relating their narrative. There are natural overlaps but the strength of each form is that it can do things that other formats cannot. Early television was thought of more as “radio with pictures” than anything else, and it embraced vaudeville as an inspiration so much that by the 1950s it had taken its place completely, even if it wasn’t completely responsible for its decline. To some degree there are many hours of television still based on the vaudeville format – short acts designed to keep the audiences’ attention at all costs, running continuously all day – yet television has brought forth possibilities which were unthinkable in previous years.

Paul Heckel’s *Elements of Friendly Software Design*, originally published in 1982, looks at early film to give a historical perspective for the creation of user-friendly software. Heckel, a professional computer programmer, elaborates on the storytelling techniques of pioneer filmmakers like D.W. Griffith and points out “a shift in emphasis from *what* was being presented to *how* it was being presented – from an engineer’s craft to an artist’s” (1991: 8). His work is also significant for drawing parallels between the first couple of decades of motion picture production (circa 1895-1915) and the first attempts at designing computer experiences which make the technology secondary to the event.

The Web has already been recognized as the next medium to offer new opportunities for storytelling. Wheeler and Silverman from MSNBC unequivocally state that “audiences online need programming which builds on the strength of the medium – not expanded newspaper or magazine issues or dry, text-based corporate brochures” (1998: ix). To Victorian scholar and educational software designer Janet Murray, “the computer looks more each day like the movie camera of the 1890s: a truly revolutionary invention humankind is just on the verge of putting to use as a spellbinding storyteller” (2). In *Hamlet on the Holodeck* (1997), Murray discusses new storytelling formats varying from shoot-‘em-up videogames to post-modern literary hypertexts. Hypertext is an important building block for the aesthetics of the Web as a creative medium. While it offers interesting and elaborate opportunities by itself, when used along audio-visual material, a hypertext environment enriches even the simplest of webcasts.

The idea that a set of electronic texts or audio/visual documents can be strung together by links is what Ted Nelson had in mind when he coined the terms *hypertext* and *hyperlink* to such a concept in 1965. Hypertext and hyperlinks were developed before the Internet and independently from it. They are an integral part of the Web, but also an embodiment of ideas related to open text, as theorized by post-structuralists. In *S/Z*, his semiotic analysis of Honoré de Balzac novel *Sarrasine*, Roland Barthes terms each segments of text *lexia*, and posits an ideal text which gives unprivileged access to any *lexia* so that various *lexia* may be read in ways which resemble the infinity of

language itself. In *The Archeology of Knowledge*, Michel Foucault contends that the “frontiers of a book are never clean-cut, [because] it is caught up in a system of references to other books, other texts and other sentences: it is a node within a network” (1972: 23). Jacques Derrida too uses words like network, web, and link to discuss textual openness, and sees different texts interwoven together to derive different meanings for different readers.³³ One of the important aesthetic qualities of the Internet, according to Janet Murray, is that, “It offers writers the opportunity to tell stories from multiple vantage points and to offer intersecting stories that form a dense and wide-spreading web” (1997: 84).

Murray’s work is the first in book-form to look closely at the Web and other aspects of cyberspace as a new medium for interactive storytelling, and was written and published before the widespread interest in webcasting and the introduction of residential broadband. The virtual dungeons of Internet role-playing games were at their height of popularity, and Murray too recognized their nontraditional theatrical qualities. While she follows the path beaten by Heckel and others towards the parallels

³³ On the convergence of critical theory and technology see George P. Landow, *Hypertext* (Baltimore: Johns Hopkins University Press, 1992). The second edition of this book was updated to include the way the Web integrates hypertext into its basic architecture, and was published under the title *Hypertext 2.0* (Baltimore: Johns Hopkins University Press, 1997).

between the new digital media and early cinema,³⁴ she cautions that “it would be a mistake to compare the first fruits of a new medium too directly with the accustomed yield of older media” (28). Having said this she makes it a point to say that we must first “identify the essential properties of digital environments, that is, the qualities comparable to the variability of the lens, the movability of the camera, and the editability of film, that will determine the distinctive power and form of a mature electronic narrative art” (68). The essential properties are beginning to surface as more and more creative projects appear on the Web, embracing the medium’s creative possibilities.

In trying to base itself on television formats this new digital medium’s preferred form of storytelling appears to be the serial drama or sitcom, as I shall discuss in a moment. To skillful Web content producers, the Web is obviously something other than television because it can offer a wider point of view on all the characters as well as a broader coverage of the events portrayed in the main narrative. I first saw a good example of this at Oscar.com in March 2001, when the Annual Motion Picture Academy Award ceremony was simulcast on the Web. Rather than simply offering the

³⁴ For a detailed account of the years in television which parallel the first decade around the popularization of the Web see Michael Ritchie’s *Please Stand By: The Prehistory of Television* (New York: The Overlook Press, 1994). Read along *Digital Babylon: How the Geeks, the Suits and the Ponytails Tried to Bring Hollywood to the Internet* (New York: Arcade, 1999) by John Geirland and Eva Sonesh-Kedar, who also see similarities between the mid-1990s and the later 1940s when big business started discovering the real potential of television as more than radio with pictures, Ritchie’s book broadens the similarity drawn between early cinema and the development of the Web as an interactive narrative medium.

same video feed that was being viewed live on television around the world, the Oscar.com webcast also featured two other alternate online video feeds for Internet users to choose from. The first was a backstage camera showing all the award winners immediately after their appearance on stage, and the other was a live feed from the press room where all the winners went as soon as they left the backstage area to answer questions from international media reporters. During the live webcasts, Internet users could also access the extensive Oscar.com database featuring profiles on all the nominees and winners, past and present, as well as various other similar features available all year on the website. All this made the online environment at www.oscar.com more comprehensive than any previous real-time experience of the Academy Award ceremony.

The Internet is still awaiting the full development of its formal aesthetic conventions. In time, a new generation of creative artists, raised on using the Web the way previous generations grew accustomed to cinema and television, will start creating new content for the Web and taking the primary elements of this medium for granted. Janet Murray sees the new generation coming of age very soon.

We are on the brink of a historic convergence as novelists, playwrights, and filmmakers move toward multiform stories and digital formats; computer scientists move toward the creation of fictional worlds; and the audience moves toward the virtual stage. How can we tell what is coming next? Judging from the current landscape, we can expect a continued loosening of the traditional boundaries between games and stories, between films and rides, between broadcast media (like television and radio) and archival media (like books or videotape), between narrative forms (like books) and dramatic forms (like theater or film), and even between the audience and the author. (63-64)

The loosening of traditional boundaries is an important step toward looking at new media as expressive rather than additive to established media. Murray refers to the various new forms that may arise from the convergence of narrative and dramatic forms as *cyberdrama*, even if the experiments she discusses range from simulation stories to rhizome hypertexts and from navigable movies to electronic construction kits for never-ending stories. She recognizes the fact that “the coming digital story form (whatever we come to call it), like the novel or the movie, will encompass many different formats and styles but will essentially be a single distinctive entity” (271). Digital environments are a powerful arena for creativity according to Murray because they have four principal properties. They are procedural, participatory, spatial, and encyclopedic. “The first two properties make up most of what we mean by the vaguely used word *interactive*; the remaining two properties help to make digital creations seem as explorable and extensive as the actual world, making up much of what we mean when we say that cyberspace is *immersive*” (71). Procedural environments are responsive to our input.

When webcasting and interactive storytelling reach the same level of expressiveness as the media we are accustomed to, the technology will become relatively invisible. It is not so much that the technology is still developing towards maturity as much as it is subject to formats established by older media. Any new medium needs to identify its own properties to come to the fore as a phenomenon which is more than mere addition to an existing medium. “One of the lessons we can learn from the history of film is

that additive formulations like “photo-play” or the contemporary catchall “multimedia” are a sign that the medium is in an early stage of development and is still depending on formats derived from earlier technologies instead of exploiting its own expressive power” (Murray, 67). It is clear that the Internet is still in the “photo-play” phase. The main terminology used is mostly additive – *cyberthis* or *cyberthat*, *e-whatever*, *streaming* media. Even the spelling of the terms Internet and Web have not been standardized, because while they are often written with a capitalized “I” or “W” this is not necessarily an accepted convention.

Bringing text, video, and a navigable space together makes for a dynamic fictional universe where characters and events can come to life. The spatial quality is created through navigation, which is what gives the Web an immediate sense of participation to the user. Cyberspace is “an environment with its own geography in which we experience a change of documents on our screen as a visit to a distant site on a worldwide web” (Murray 1997: 80). This vast geography³⁵ is in a constant state of flux, but in the chaos of the Web, where all the computers in the world are potentially accessible to each another, it is easy to see the Internet as a single global library of all the art, literature, music, films, information, television, and news published online or

³⁵ The geography of the Internet is the subject of some serious study as can be seen from the collection *Virtual Geographies* (New York: Routledge, 1999) which explores how new communication technologies are being used to produce new geographies and new types of space. See also quantitative data gathered by geographers of cyberspace like Martin Dodge and Rob Kitchin, authors of *Mapping Cyberspace* (New York: Routledge, 2001) and *Atlas of Cyberspace* (New York: Addison-Wesley, 2001), as well as a website at <http://www.cybergeography.org/>

digitally rendered. Although the idea of a globally accessible mega-database has many positive features, one quality is often frowned upon by those seeking to see the Internet emerge as strong a medium for entertainment and information as print or television. The Web's vastness makes content creators produce works that are more long-winded and formless than they could be in any other medium. There are virtually no limits to space and no established online standards. This trait gives some Internet users a sense of loss when they are online because as with the oft quoted Gertrude Stein phrase, *there is no there there*.

3.5 PIONEERS OF THE WEB (AS A MEDIUM FOR INTERACTIVE STORYTELLING)

Like early cinema, the Web has its own pioneers. Perhaps it is a little too soon to name the true Web parallels to the pioneering work of Georges Méliès, Edwin Porter, D.W. Griffiths and others on film. I will focus on two particular examples which I find historically significant. The first has already been widely recognized as a pioneering example of how the web can be used as an interactive medium for storytelling. The other is one I observed closely as part of my research for this dissertation.

The first online narrative to attract a large audience was entitled *The Spot* and featured a small group of Californian yuppies living in a beach house. Led by independent film producer Scott Zakarin, the characters in this "episodic web show," as Zakarin called it, posted their diary entries, with video and audio clips and photos on the Web for all to see and comment on starting from the spring of 1995 until June 6, 1997. Although

there was an attempt to market *The Spot* to a mainstream audience, its real success can be safely attributed to its good use of interactivity. A discussion on the online forum at the website, known as the “Spotboard,” could result in instant plot adjustments. As Murray puts it, “The dramatic action is not in the canned story created by the writers alone but in the spontaneously improvised exchanges between the simulated characters and the participating fans” (57). This level of interactivity is one of the features of the Internet that make it different from any other medium we know before it. I will continue discussing interactivity in the next chapter.

A number of other similar attempts followed *The Spot*.³⁶ I closely observed the creation and production of *Peace Cops: A Job Done Without the Gun* by Galinsky and Thomas Moore. The “Peace Cops” in this production are hand-picked law enforcement officers designated to fight crime without the use of violence, excessive equipment and physical force.³⁷ The premise of the show is based around the recruitment of a “Peace Cop” called Julian Ti Jean, and his crime prevention adventures in New York City. I recently interviewed Galinsky about *Peace Cops*, and

³⁶ An extensive history of *The Spot* and other exploits of Scott Zakarin (as well as other online entertainment pioneers) are available in J. Geirland et al, *Digital Babylon* (1999).

³⁷ *Peace Cops* was started as *Real Cops* when Galinsky and Moore worked as Executive Producer and Director of Photography respectively for Pseudo.com’s Performance Channel. Segments from both *Real Cops* and *Peace Cops* were webcast on Pseudo.com between 1998 and 2000, but the finished project never reached the public because the company went bankrupt. Former Pseudo.com President Josh Harris owns the videotape masters which now sit in a vault in upstate New York called Iron Mountain. More of Galinsky’s work for Pseudo.com is discussed in the next chapter.

he explained the basic production process.³⁸

The episodes are shorter when done for the Web [than they would be for television]. *Peace Cops* episodes are like four to six minutes long. At the same time, everything needs to move slower on camera; we slow it down, because if pixels moves too fast you loose the action. So we ask the actors to do what they do slower than they would for TV or film. In terms of color treatment we do things completely different, too. Remember that the image is compressed for streaming. Things can be really beautiful and we know that we don't have to deal with so much overhead in terms of lighting and other factors on location, because we know what the technology will do to the picture. Close-ups can work beautifully by moving even closer. When we shot Kate Valk [an actor from the Wooster Group who played a role in the series] we went down her nose and her eye and across her lips and her chin like it was the side of a mountain in a small box.

This makes complete sense for an audience using a 56K dial-up connection, or a slower modem speed. But with residential broadband, DSL and Internet access over cable TV lines, and sites like News.com, we can now get a picture that is almost TV-quality and that fills up the whole screen. Galinsky believes that the aesthetic qualities of the low bandwidth streamed video through the codecs available in the late 1990s “somehow has some kinetic relationship with the medium, that even though we’ve got quicker frames rates and the resolution is better it still works that way.”

His model relates to the push-pull model I discussed above. Unlike television, the web demands an attentive audience.

When I watch TV it’s usually coming out at me. When I watch something on the Net I’m looking into it. I’m always kind of being pulled in, or I’m pushing myself into the box. There’s a kind of way of viewing going on. I can be more intimate with this type of viewing. I

³⁸ I interviewed Galinsky on August 8, 2001.

can be more intimate than getting closer to somebody's face or taking action and slowing it down a little bit, it not only reduces the possibility of it clipping but also to me it kind of flows nicely, I'm moving in with it, I'm moving towards it, as opposed to the TV-kind of viewing where, of course, I can be five feet away and not just eighteen or twelve inches away. This is what dictated our style on the web at the time. There's this six-minutes episode of video on one-fifteenth of the screen and there was fourteen-fifteenths of the screen left. What can we do to create a relationship between these two things and continue to have a relationship with the audience? So we took these things that had already existed like chat, to talk to characters, and a bulletin board, to fight or agree with other people on the issues that are on the shelf. Because our overhead was low, the audience can dictate where the show goes. If I've got a 15-year-old kid who is in trouble all the time and I keep arresting him on the show, I've got my audience who can say, "Throw the kid in jail and forget about him next week," and we can make an episode the next week and that's exactly what we do. Or we can go contrary to what they want. That other fourteen-fifteenths of the screen is a way to add more communication. The video stream is us telling you, but because we don't have to pay for union fees and big lighting grids, we could spend more time speaking with the audience and let them help us put these pieces together and change the direction of the show, or fight with them too and not do what they want.

Peace Cops had whole sections related to aspects of the episodic web show format first presented by *The Spot*. Thanks to photograph files for each character, and a bulletin board for each character, each character could talk to the audience between the release of each episode. "We had diary logs that [the characters] had to fill out so, if you watched the show on Wednesday, you would not have to wait till the next Wednesday to re-enter the experience of that show, but Thursday there would be a diary entry from the characters on that show which related to what happened...and it's not just a one-way push out because the audience can say their thing too on the same website." *The Spot* used most of these elements, so it is clear that Zakarin's work

served as a template, even if it did not have a streamed video component as the centerpiece of the show, like *Peace Cops*.

A significant difference between the early years of other media and this new medium is that the audience is also an integral part of the authoring of the digital world. A fundamental difference between the Web and television/radio is that the new media offer broader access for production, as we shall see in the next two chapters. Web content creators can reach an audience without a controlling intermediary such as a broadcast distributor or network. When best-selling author Stephen King self-published one of his novels on the Internet, a Time magazine cover story proclaimed: “Who needs Hollywood when you can make your own movies, books and music?” and elaborated on how “anyone with minimal geek skills and lots of free time can be the hero of homegrown entertainment for almost nothing” (March 27, 2000). To understand the potential of webcasting as a new medium in its own right and not simply as another way of doing television, it is necessary to see it as something other than another way of broadcasting via television, even if it sometimes resembles it.

The Internet has provided us with a new stage for participatory performance. Web audiences can do what Web performers do, even if they do not produce as compelling an event. The next chapter looks at how webcasting, and more specifically live art on the Internet in the manner adopted by Franklin Furnace, builds on a long tradition of artists seeking a democratic medium through which they can disseminate their ideas.

Chapter 3

SAME IDEAS: ON PAPER, ON-LINE, WHATEVER...

The Internet is still a wide open frontier with very few fences in place. This is the time for artists to get their underground ideas to the broadest possible audience through the convergent art medium the 20th Century spent itself looking for.

- Martha Wilson (Franklin Furnace website, 1998)

According to performance historian RoseLee Goldberg, “the history of performance art in the twentieth century is the history of a permissive, open-ended medium with endless variables, executed by artists impatient with the limitations of more established art forms, and determined to take their art directly to the public” (1988: 9). In her account, performance art is “live art by artists” (9). Yet, as she implies and admits, there are different genealogies of performance art. In this chapter I will trace a lineage that connects artists’ books to live art on the Internet via performance art in the latter half of the twentieth century. My goal is to understand and explain how Franklin Furnace chose webcasting as the appropriate medium for presenting avant-garde art as it had done for more than two decades before moving online.

In 1990, former Franklin Furnace program coordinator Jacki Apple wrote that “in the ‘70s performance art was primarily a time-based visual art form in which text was at

the service of the image; by the early '80s performance art had shifted to movement-based work, with the performance artist as choreographer. Interdisciplinary collaboration and 'spectacle,' influenced by TV and other popular entertainment modes [...] set the tone for the new decade" (Apple 1990: 21). The close relationship between book art and performance art should be emphasized here.¹ Apple's comments indicate that in the eighties there was a move away from "image at the service of text." However, in hindsight, we can see that text (in the strict sense of the word) and its manipulation play an important part in the evolution of the first electronic artists' books and the eventual experiments with live art on the Internet. Without knowing that the Internet would be the next focal point for new performance art into the 1990s, Apple realized that the essential ingredients were the same as those that have made live art on the Internet via webcasting possible: collaborative work of an interdisciplinary nature, feeding on television and other popular entertainments.

3.1 BACK TO THE FUTURISTS

Whenever Martha Wilson is asked to speak or write about the history of Franklin Furnace, she traces the roots of the work presented by her organization to the Italian

¹ Although there have been books made by artists for several centuries, the term *artists books* first appeared as the title of an exhibition at Moore College in Philadelphia between March 23 and April 20, 1973. The 250 works exhibited included works by Ed Ruscha, John Cage, Steve Reich, Merce Cunningham, David Hockney, and many others. The spelling of the term varies. The apostrophe is often omitted, as in the Moore College exhibition. The Library of Congress accepted the term in its list of established subjects in 1980. The following year, the National Endowment for the Arts granted its first awards for the creation of artists' books.

Futurist painters and poets. Rather than the relatively obvious theatrical Futurist events, Wilson chooses to locate the beginning of contemporary performance art to a specific action: on July 8, 1910 in Venice, the Futurist threw eight hundred thousand copies of their broadside *Against Passéist Venice* out of a clock tower at San Marco's Basilica onto the heads of the congregation leaving the church. This action brought about a physical confrontation more public than any theatrical event the Futurists had organized before or produced later.

Wilson believes that artists in this tradition are sick of being relegated to some corner of society where their ideas are not given attention, and observes that "some of these artists sought new mediums to broadcast their ideas" (Padon 1998: 109). The active word here is *broadcast*. In terms of "broadcasting" she also refers to how Filippo Tommaso Marinetti bought space on the front page of *Le Figaro* in 1909 to "broadcast" his ideas in the first Futurist manifesto. Wilson has publicly declared that this idea of broadcasting is what lead Franklin Furnace to move into webcasting after two decades of presenting artists' books and performance art in their downtown gallery and performance space.² Her decision to sell the space on Franklin Street in the

² Martha Wilson spoke about this idea during a planned conversation entitled "How did Live Art on the Internet evolve from Performance Art?" on Tuesday, September 17, 2002, during a class from the course *Live Art on the Internet*, which she and I co-taught at NYU's Department of Drama during the fall 2002 semester. Course description and syllabus available at <http://www.tonisant.com/class/2002>

mid-1990s was coupled with the idea of turning Franklin Furnace into a production company for television broadcasting.

By the time Franklin Furnace first opened its doors to the public in 1976, hundreds of artists were engaged in the production of inexpensive books, postcards, and other printed matter distributed through the mail; a tradition started by Ray Johnson in the 1950s. In the 1960s, such activity was embraced by Fluxus, particularly Dick Higgins who established the Something Else Press and published works by his fellow visual artists, poets, choreographers and composers, documenting their ideas and activities. By the late 1970s, Franklin Furnace, along with book distributors Printed Matter and a handful of other galleries, archives and bookstores, provided a support system for the dissemination of such work by artists. If, as Wilson claims, the adopted ancestry for Franklin Furnace moves from Marinetti and the Futurists to Duchamp and Dada, followed by the Conceptualists, Fluxus and the Happenings, it becomes clear that issues of what constitutes art and the role of the artist in society, drive whatever the organization sees as the spirit of the avant-garde. Franklin Furnace has embraced this line of thought throughout its lifetime.

Wilson believes that the impulse toward artists' books came from the work of Stéphane Mallarmé, who thought the rest of the space on the printed page was as valid as the words. Mallarmé proposed alternative ways for readers to look at books, offering them varied visual arrangements with typesize and diverting their eyes away

from the customary sequential order of left to right, top to bottom reading. Artists' books seek a new mode of reading, which can be linear, but is often equally effective experience in a random page order. This is because artists' books in this tradition are not viewed as containers of information, but ways to convey ideas about art, artists, and the world they live in.

In 1977, Martha Wilson was impressed by an article written by Howardena Pindell for *The Print Collector's Newsletter* entitled "Artists' Periodicals as Alternative Spaces." Pindell's article covered artists' periodicals from 1900 to 1977, matching them to a selection of historical events. Wilson realized two important things for Franklin Furnace from Pindell's writing. First, that the idea of the printed page as an alternative space for presenting art had a long history many and offered great possibilities for artists. Most importantly, Pindell points out that "artists' periodicals continue to provide a means for the artist to put him or herself directly into art history without the aid of the critic or dealer or curator as mediator – an alternative space" (1997 [1977]: 90). Moved by the second influential aspect of Pindell's article, at the outset of the 1980s, Franklin Furnace organized a four-part exhibition called *The Page as Alternative Space, 1909-1980*, drawing from private and public collections, as well as from the permanent collection of that Franklin Furnace had amassed until then.

The first part of the exhibition (1909-1929) was curated by Clive Phillpot, who was then the librarian of Museum of Modern Art in New York.³ Phillpot has proposed a schema of different examples of artists' books and book art. His list includes: magazine issues and magazineworks; assemblings and anthologies; writings, diaries, statements, and manifestos; visual poetry and wordworks; scores; documentation; reproductions and sketchbooks; albums and inventories; graphic works; comic books; illustrated books; page art, pageworks, and mail art; and book art and artworks (Phillpot 1997: 38-50). While Phillpot has often written about the problematic terminology surrounding this kind of art, Wilson claims that the term artists' books does a disservice to the field.

First, a book is usually something you hold in your hands that refers outside of itself to something else in the world, so you have books about how to work your computer or books about art history. So an object that refers inward, to itself, is the first confusion that the term "book" brings up. Second, our use of the term "book" most often implies the codex format with bound pages. But in making "books," artists have often ignored the codex. [...] when a block of concrete was labeled "concrete poetry" by the artist, that was a book as far as we were concerned. It was an artist's book because the artist said so and because it was done in an edition. (Padon 1998: 113)

Wilson's affirmation that any work can be an artist's book if an artist declares it so and if a number of copies of the work are published at one time, opens up the concept

³ Part two (1930-1949) was curated by avant-garde publisher/editor Charles Henri Ford, while Barbara Moore and Jon Hendricks were responsible for part three (1950-1969). Artforum Editor Ingrid Sischy coordinated the final part (1970-1980).

beyond the block of concrete to embrace electronic books and their various forms.⁴ To follow Wilson in this direction, one must recognize that for her, and for Franklin Furnace, “an artist’s book is an object whose primary medium is the idea, as opposed to an object that is valuable by virtue of the materials from which it is made” (Padon 1998: 109). The view that artists’ ideas are above what they physically produce builds on the basic principles of Conceptual Art. For the Conceptualists, democracy with the process of making and distributing art was an important idea. Book works that can be produced cheaply and distributed through the mail helped fuel the political component of avant-garde art, which permeates not only the desire to “broadcast” ideas but also to “broadcast” them to new audiences. The Conceptualist, and other artists working in the 1960s sought to erase the distinction between subject and object, between art and life. Still, while there were artists who rejected the finely crafted book in favor of an unlimited multiple edition, others created books as single unique object, like sculpture. For many artists working around the book form since the 1960s, creating work that documents the idea was seen as the primary goal.

It was only with the institutionalization of the avant-garde in mainstream museums, such as New York’s MOMA, that the objects themselves started to be considered

⁴ The block of concrete referred to here is a work titled “Concrete Poetry” by Timm Ulrichs, in an edition of 50. It was on loan from the collection of Toni Zwicker for the Franklin Furnace exhibition *Concrete Poetry: The Early Years*, which was held throughout the month of July in 1986 at 112 Franklin Street, and then moved to the Thomas J. Watson Library at the Metropolitan Museum of Art between September 2 and 26. Ulrichs’ work was never part of the Franklin Furnace permanent collection.

widely as objects of art. Nevertheless, sweeping generalizations certainly do not apply in this regard because when MOMA catalogued the artists' books it acquired from Franklin Furnace in 1996, they were stamped by the museum's library staff, just as if they were ordinary books.

Since in Wilson's own words, "the value of idea over material is paramount," (Padon 1998: 112) we can see how webcasting and other forms of electronic "books" form part of the same continuum for Franklin Furnace. This type of reasoning about artists' books rings differently now than it did before the mid-1990s. This is mainly due to Johanna Drucker, book artist and Director of Media Studies at the University of Virginia, who has helped usher a new way of looking at artists' books based on the belief that "the best artists' books are those which interrogate production and content so dynamically that such distinctions are moot" (Drucker 1995: 359). Franklin Furnace's move towards presenting artists' work on the Internet extends the field towards what I call *electronic artists' books*.

3.2 ELECTRONIC ARTISTS' BOOKS

Franklin Furnace, and other similar outlets for artists, which appeared over the past three decades, aim to offer the intimate experience of art as an ordinary object to the masses as opposed to the experience of the precious objects of the commercial institutions to an elite audience, even if commercial galleries and bookstores serve larger numbers. The concept of artists' books as a democratic artform has been a

banner hoisted by many artists in the field for many years, however, mass interest in cheap art books never materialized. Drucker explains this in terms of affordability and accessibility (Drucker 1995: 69-83). Problems of distribution in the art establishment makes affordably produced works of art less profitable as accessible commodities. Time has shown that the reason for this appears to be that “cheapness and numbers do not necessarily guarantee public access or public interest” (Phillpot 1997: 37). Discussing ideas of affordability and accessibility in 1997, Wilson declared that computers and the Internet “will undoubtedly extend the democratic nature of the book” (Padon: 123).

Franklin Furnace had not started presented live art on the Internet at the time Wilson made this public statement about electronic artists’ books. The organization received its first electronic artist’s book on computer disk in 1992. The work was Nancy Buchanan’s *S&L Samples*, which was a condensation of a larger work with multiple files. The larger piece was called *Home Ec: The S&L Scandal* and was designed to fill in the blanks left by President George Bush's distraction from the huge losses caused by changes in banking regulations that resulted in massive fraud by speculators who bought and destroyed long-time institutions designed to assist first-time homebuyers. It contained text, animations, and sound in a playful, interactive piece that ran on the Macintosh SE30 computer.⁵ I speak of this work in the past because the work was

⁵ HyperCard was a free application originally bundled with early Apple Macintosh computers, which allowed the creation of databases and various sorts of data sorting.

never seen at Franklin Furnace. They did not have the appropriate computer to open the diskette. Notwithstanding, Franklin Furnace's copy of Buchanan's *S&L Samples* is now housed at MOMA. The museum does not have the appropriate equipment to open Buchanan's work either, but it is catalogued and preserved along with the rest of the collection of artists' books and related documents they purchased from Franklin Furnace in 1996.

Among the first online works by artists that impressed Wilson was Jenny Holzer's *Please Change Beliefs*, which was originally created in 1978 as *Truisms*.⁶ The 1978 installation in the Franklin Furnace street-level window at 112 Franklin Street was vandalized by a bolt thrown through the phrase "Boredom makes you do crazy things," and this interactive incident appears as an example of interactive art on every timeline Franklin Furnace has published since then. In *Please Change Beliefs*, Internet users can alter Holzer's list of truisms and make comments for Holtzer, and others online visitors, to read. Wilson sees this as an artists' book concept "taken to its next logical extension," but adds that "Franklin Furnace always uses the word 'book' with extreme liberality, mainly because the artists themselves do" (Padon 1998: 123).

Later versions enabled the construction of stand-alone applications not requiring HyperCard itself to reside on the hard drive.

⁶ Jenny Holzer's *Please Change Beliefs* is available online as part of *äda 'web*, an online art project established in February 1995 to provide contemporary artists with a station from which they can engage in a dialogue with Internet users. The project is available online through Minneapolis' Walker Art Center website at <http://adaweb.walkerart.org>

Wilson's first personal experience using the Internet as a performance art medium came through Nina Sobell and Emily Hartzell who, according to C. Carr, produced "the first live performance in the history of the World Wide Web" in 1994.⁷ This claim for a "first" is debatable because of the technical characteristics of the medium and questions surrounding the ontology of liveness.⁸ Still, in October 1996 Wilson appeared on Sobell and Hartzell's on-going ParkBench series with a piece called *Tipper Gore Sings the Star Spangled Banner*.⁹ In this piece, photos of Wilson playing Tipper Gore appear at regular intervals with the words to *The Star Spangled Banner* superimposed over the images, in a style reminiscent of cheap karaoke. There is no

⁷ See <http://www.villagevoice.com/columns/9838/carr.shtml>

⁸ Major experimentation with the potential of the Internet as a medium for live performance was done by Stuart Harris, artistic director of the Hamnet Players, one full year before the first graphic Web browser was made commercially available to the general public. In December 1993, after more than a year of preparation and experimentation, an international cast performed an adaptation of Shakespeare's *Hamlet*. The production appeared on computer screens around the world through an Internet Relay Chat channel coordinated from San Diego, California, and was repeated in February with Ian Taylor of the Royal Shakespeare Company in the title role. The second performance was enlivened by a bot, an automated program written to behave like a real user, which accidentally killed Hamlet halfway through the production. For a detailed discussion of Hamnet see Chapter 3 in Brenda Danet, *Cyberpl@y* (New York: Berg, 2001), as well as Brenda Danet, Tsameret Wachenhauser, Amos Cividalli, Haya Bechar-Israeli, and Yehudit Rosenbaum-Tamari, "Curtain Time 20:00 GMT: Experiments in Virtual Theater on Internet Relay Chat," *Journal of Computer-mediated Communication*, 1, (2), special issue on "Play and Performance in Computer-mediated Communication," Brenda Danet, guest editor. Available at <http://jcmc.huji.ac.il/jcmc/vol1/issue2/> See also Stuart Harris, *The IRC Survival Guide: Talk to the World With Internet Relay Chat* (Reading, MA: Addison-Wesley, 1995).

⁹ Archived at http://www.cat.nyu.edu/parkbench/parkbench/10_16_96.html

audio on this work. Sobell and Hartzell's ParkBench pioneered live art on the Internet though digital imaging, and while their technique is fairly simple compared to the elaborate technical make-up of streaming media I described in chapter 2, there is no denying that their work marked the potential of the Web as a medium for performance art.¹⁰ Martha Wilson's experience with ParkBench and her ideas on electronic artists' books played a significant role in shaping the decision to refocus her quest to present performance art on television towards producing the Franklin Furnace performance program through the Internet.

The link between artists' books and performance art is brought to the fore in the early works of Ida Applebroog, whose many books of drawings are all subtitled *A Performance*. Applebroog, whose first New York shows included one at Franklin Furnace in 1979, created three sets of self-published books and distributed 500 copies of each via U.S. Mail, penetrating the personal sphere of her patrons.¹¹ As art critic Arthur Danto rightly points out, "if [in the late 1970s] the artworld was a site of experimentation and exploration, expressed in the ephemerally of its most

¹⁰ The difference between "the Internet" and "the World Wide Web" is important in tracing a history of online performance. While the Internet has been available in academic institutions since the late 1960s, the Web was invented in 1990 by Tim Berners-Lee to enable the sharing of network-accessible information through a standard protocol. The Web functions as a subset of the Internet and various other Internet functions, such as e-mail and instant messaging, are fully-functional outside the realm of the World Wide Web.

¹¹ *Galileo Works*, 1977 (10 books); *Dyspepsia Works*, 1979 (11 books); *Blue Books*, 1981 (7 books).

characteristic products, performance was perhaps the defining genre of the time, involving an immediacy of engagement between artist and audience that aimed at the transformation of consciousness rather than the embellishment of walls. That Applebroog appropriated the term for her books implies that they were not to be looked at but worked through by interactive rather than passive readers” (Lignel 2002: 68). This interactive aspect of such book works is most significant in the history I’m tracing here. While participatory art has been around for a few decades, new media have made this phenomenon ordinarily familiar.

Wilson believes that electronic publications offer an enhanced level of interactivity, but since the quality is inherent in new media, interactivity must first be embedded in the concept of a piece for it to be effective, because as she says, “some ideas will go out appropriately on the net and others ideas will be held appropriately between [book] covers” (Padon 1998: 123). Discussing this further with Martha Wilson has led me to look closely at the formal qualities of the erotic art by Annie Sprinkle and Frank Moore, created and presented independently from each other, Through their work I have discovered that the link between artists’ books and performance art extends easily to electronic artists’ books produced for an Internet audience.

While I will not go as far as arguing that pornographic books, magazines, and other manifestations of sex on paper should be automatically included in the general rubric of artists’ books, it is clear that the making of many such book works would

mechanically qualify to be categorized in Clive Phillpot's schema, which I discussed above. I refer mostly to sexually explicit works produced underground, outside the big-business sex industry dominated by major corporations like Playboy Enterprises and General Media International, Inc.

On January 26, 1984, professional sex-worker Annie Sprinkle had what she calls "a transformative experience."¹² On that day she did her first performance art show and started to change her professional path towards the creation of erotic art rather than continue making porn films and nude photography modeling for sex magazines. Franklin Furnace was sponsoring Carnival Knowledge, a women's art collective, who put together a series of performance art events investigating the role of sex in art. One of the pieces was entitled *Deep Inside Porn Stars*, and featured seven female porn stars who met regularly as Club 90, "to discuss problems, share successes, to network and to gossip." The event was essentially a reenactment of one of Club 90's meetings. Each performer had a personal moment in which to share something about themselves in any way they wanted. For her spot, Sprinkle "chose to illustrate with slides, words and a few props, how shy, insecure, scared Ellen Steinberg had recreated herself as Annie Sprinkle, exhibitionist, confident, fearless sex slut." This personal visual poem, was later re-titled *Ellen/Annie*, presented as a performance art piece in various other

¹² All the quotations from Annie Sprinkle that appear here come from an unpublished document she wrote in 1996 called "Some of My Performances in Retrospect," solicited by Martha Wilson for Franklin Furnace. In January 2003, I corresponded with her by email to confirm and update some of the information.

locations, featured in Sprinkle's book *Post-Porn Modernist* (based on the performance by the same name), and eventually reworked into an elaborate online documentary with The Robert J. Shiffler Foundation of Dayton, Ohio, giving access to the full script of the performance, all the slides used during the show, images of Sprinkle performing and close-ups of her props, and single-camera video clips available for viewing on demand.¹³ Three different versions of the script are offered on the website, reproduced in their original format, to give an idea of the way the work evolved over time.

Over the past fifteen years, Sprinkle has worked a professional performance artist. By her own admission, she was "titillated and intrigued by the art world," and she believes that this new audience for her work has been "titillated and intrigued" by her work ever since. She maintains that "doing controversial performance work requires a heck of a lot of energy, and can be a really hard job." Sprinkle proposes "total creative freedom" and "far less censorship" as the two main reasons why she prefers to make performance art rather than porn and other traditional sex performances. "In art you could dress how you wanted, act how you wanted and perform for as long or short as you wanted, and there didn't seem to be any very specific laws about the sex and nudity." This view is shared by Frank Moore who has spent the last thirty odd years creating art and performance built around this premise.

¹³ See <http://www.bobsart.org/sprinkle/>. Details on The Robert J. Shiffler Foundation, which has also developed works online by Lindo Montano and Barbara Pollack, among others, available at <http://www.bobsart.org>

Moore produced two shows at Franklin Furnace: *Intimate Cave* was presented on Thursday, May 14, 1987, and *Journey to Lila* on four different weekend evenings following Friday, June 9, 1989. He describes both events as “long ritual performances.”¹⁴ Each performance lasted about five hours. *Intimate Cave* included a troupe of fifteen New York-based performers. Annie Sprinkle was one of the fifteen performers. The Franklin Furnace press release for Moore’s debut in New York says that the performance featured “silly pranksters who will take such things as nudity and physical contact out of the realm of adult sexuality.” *Journey to Lila* was different than the first performance but presented in a similar setting, with a cast of sixteen performance artists, including Veronica Vera and Linda Montano.

During his performances, Moore gives his audience an opportunity to converse with him via his letterboard (a device that looks like a Ouija board, which he uses as a communication aide because he is quadriplegic) and to play an active role in situations comparable to some of the classic happenings from the 1960s. The audience for *Journey to Lila* was invited to bring a blanket, and “journey to the mythical Island of Lila, where Frank Moore hopes to achieve his lifelong goal – to help adults lose the fears and taboos associated with sex, and return to a child-like reality beyond fear and doubts.”¹⁵

¹⁴ I interviewed Frank Moore by email in January 2003. All the quotations that appear here come from this interview and related email correspondence I had with him in the weeks before and after the interview, unless otherwise indicated.

¹⁵ From Franklin Furnace’s official press release for *Journey to Lila*, issued May 1989.

For *Intimate Cave*, Frank Moore and his collaborators produced a book called *Caves*. He explains that when he had presented a similar show in Los Angeles the previous year, “people wanted to have something to take with them that would give a context to what they had just experienced.” While some of his cast in New York disagreed with the idea of having a book about or as part of the performance, Annie Sprinkle “lustfully hawked” the book. Another book, called *The Art of Living*, was also published by Moore and his collaborators in 1987. Other book works followed, consisting mostly of photocopied sheets of paper stapled along the edge.¹⁶ By 1992 his most important work on paper appeared as a periodical called *The Cherotic (r)Evolutionary*. The periodical featured the work of several contributors, including artists, photographers, performers, writers, poets and Moore’s close collaborators. Eight issues were published by 1999, and the publication of this periodical was abandoned very reluctantly, because most of his time is now dedicated to the upkeep of a Web project called *Love Underground Visionary Revolution*, better known as LUVeR.¹⁷ This website combines live streaming, on-demand libraries of programming, audio, and video. LUVeR.com prides itself as “anti-corporate” and “anti-capitalist,” offering resistance towards the Web becoming “just another corporate-controlled selling medium.”

¹⁶ Some of these works are part of the Franklin Furnace Collection now housed at the Museum of Modern Art in New York.

¹⁷ See <http://www.luver.com>

Moore was attracted to computers before there were personal computers, and claims to have “wormed” his way into having time on the big university mainframe, as he studied to acquire a graduate degree in psychology from the University Without Walls program at the University of Berkley. He was active on Bulletin Board Services throughout the 1980s, using a personal computer to connect with Genie, a popular service run by General Electric. He “quickly became a controversial figure, pushing the limits, breaking the rules in such a way that made it very hard for them to censor...it upset them that [he] talked about Annie [Sprinkle] on the New Age [chat] room.” His postings about Sprinkle were deleted by the board moderator, and “the topic of course became why Annie was New Age.” This was in the early 1990s, when Sprinkle was exploring the link between spirituality and sexuality in her own work.¹⁸ After Genie closed down, as most other similar services did with the coming of the Web, Moore continued his relationship with other friendly BBS-members, eventually creating The E-Salon, a community of about two hundred creative people brought together by regular emails.

In 1996, he started *The Web of All Possibilities* with his partner Linda Mac and fellow artist Michael LaBash.¹⁹ At first this website consisted of writings, art, and photos by LaBash and Moore, but eventually they also started adding the work of other artists, as

¹⁸ For a detailed account and commentary on this work see A. Sprinkle, *Hardcore From The Heart: The Pleasures, Profits, and Politics of Sex in Performance*, edited by Gabrielle Cody (London and New York: Continuum, 2001).

well as a live web cam giving the world a glimpse of their everyday life. Streaming audio and video documenting Moore's rituals/performances followed soon after, and in 1998 Joey Manley, director of Free Speech TV, gave Moore unlimited space and all the required bandwidth to archive all his audio/video works.²⁰ Through this initiative, Moore has also created an online archive with tape recordings of his work, which previously sat in his closet. In 1998 he was also invited to do a weekly two-hour Internet-radio show by FakeRadio.com, *Shaman's Den*. A year later, Moore and his collaborators left FakeRadio.com and started doing the whole thing on their own through LUVeR. Annie Sprinkle was the first guest on LUVeR.com's *Shaman's Den*.

In 2000, Moore and LaBash launched L.A.N. (LUVeR Alternative News), augmenting LUVeR with a channel for "the social, cultural, political, and personal [r]evolution that the corporate media actively suppresses."²¹ Moore has a very sharp sense of communication and insists that "each medium does different things, reaches different people." When I asked him about using paper less in recent years, since the rise of the Internet as a mass medium, he exclaimed that "people don't need to limit themselves to one medium!" Indeed, he continues with his live performances, mainly around his

¹⁹ See <http://www.eroplay.com>

²⁰ Free Speech TV is a non-profit organization based in Boulder, Colorado, which works with activists and artists using television to advance progressive social change. Their website offers low-cost Web hosting to all artists and activists and features the Internet's largest archive of activist audio and video content. See the FSTV official website at <http://www.freespeech.org>

²¹ See LUVeR Alternative News at <http://www.luver.org>

hometown in Berkley, California, where he also hosts a cable television show, which is broadcast three times each week. For his cable television show, Moore uses material from his websites, along with videos of his live performances, and other artists' works.

One of Moore's main goals is "to create communities and pipelines for art." To this end, the works of many artists are also included in the online archives at LUVeR. It is a great thrill for Moore realizing that "a piece that had a live audience of 10 people is being watched by thousands now on the web!" Getting feedback from Internet viewers and hearing from other artists interested in presenting their work online through LUVeR makes interaction a major element of the LUVeR experience.

3.3 IT'S INTERACTIVE!

Most artists' books, performance art, and websites offering live art on the Internet invite a direct personal contact between the artist and the reader/spectator/viewer, which makes the works feel accessible, unlike paintings hanging on a gallery wall displayed almost like untouchable holy relics. A wider degree of participation, rather than passive contemplation, is sought from the reader/spectator/viewer when the art medium is a book, performance, or website. This wider degree of participation makes the experience interactive.

Proposing a useful language of new media, Lev Manovich argues that interactivity is common in various types of old media. In writing, for instance, the ellipsis allows the

reader to fill in missing dialogue with a subjective interpretation. Missing detail and fuzziness in an image have a similar effect in the visual arts. Cinematographic techniques such as lighting and montage actively engage the viewer's eye, drawing it to different points in the frame. And the viewer must physically move around a sculpture or building to witness as much as possible of the entire piece (Manovich 2001: 56). Manovich's interpretation of active engagement as interaction is one aspect of how interactivity occurs in new media. It speaks to the idea of being engaged with an object or event in a personal way, without altering the original experience for the next person beholding it. There is also the power of the viewer to modify the piece by interacting with it and/or the environment it is in. With computers and the Internet both of these two types of interactivity occur, and they are taken for granted. There are two possible outcomes from this second type of interactivity: either the original experience is altered for the next person or every experience shares the same starting point but has (potentially) different manifestations and endings. There are different types of interactivity with computers and the Internet.

More than forty years ago, MIT psychologist J.C.R. Licklider saw the potential of computers as devices for interactive communication rather than mere calculators. His theories and experiments led the U.S. Defense Department's Advanced Research Projects Agency (ARPA) to fund a project creating a computer communication network among its university-based researchers, starting in 1969. As director of ARPA's Information Processing Techniques Office (IPTO) between 1962 and 1964,

Licklider began the quest for a way to connect computers across the country. With the help of others funded by ARPA, he set out to create what he called an “Intergalactic Network,” designed to connect the previously unconnected. The collaborative and complex nature of what we now call the Internet makes it hard to credit Licklider as the inventor of the Internet,²² however, his vision is truly the one to which we should look to recognized the Internet as the ultimate interactive medium it is.

Licklider’s vision for what he called “Man-Computer Symbiosis” was first outlined in an essay by the same name in 1960. He envisioned home computer consoles which would be linked to television sets in a seamless network and hoped that “in not too many years, human brains and computing machines will be coupled together very tightly, and that the resulting partnership will think as no human brain has ever

²² The expansion of computer networking required the invention and development of new technologies such as computerized switching and data transfer protocols. The first wide-area network nodes were installed at four university research centers – University of California at Los Angeles, Stanford Research Institute, University of Utah, and University of California at Santa Barbara – to start a network called ARPAnet by the end of 1969. Email was the first practical application developed for the ARPAnet which soon spawned out from the four initial sites to eventually merge with other computer networks to become what we now call the Internet. In the years that followed, the Internet thrived on University campuses in the United States, and although in 1973 Vint Cerf and Robert Kahn defined the Internet protocol (TCP/IP) that allowed packets of information to be sent from any computer to any other computer, it took them another ten years to develop it fully.

thought and process data in a way not approached by the information-handling machines we know today” (1960:2).²³

From Licklider’s standpoint, the Internet was created as a medium which builds on, and extends, face-to-face interaction and communication because it makes possible person/s-to-person/s communication which is different from face-to-face communication by virtue of features unique to the Internet. The Internet is the only medium designed for one-to-one, one-to-many, and many-to-many communication models both in real time and stored for retrieval on demand. These features make it possible to use the Internet to easily communicate with one or many both synchronously and/or asynchronously, through the same medium. That same medium, which we call the Internet, depends in large part on human-computer interaction, which depends on various elements of human-computer design.

Human-computer interaction enables Internet communication through the basic elements of human-computer design. This is what we refer to as the interface, or more

²³ In 1968 he elaborated further on this in an article he co-wrote with Robert W. Taylor, who was then the director of ARPA’s IPTO, entitled *The Computer as a Communication Device*. Building on Licklider’s original human-computer interaction model, the second article proposes that “a well-programmed computer can provide direct access both to informational resources and to the *processes* for making use of the resources” (1968:22). The emphasis on processes is in the original text and clearly demonstrates that Licklider believed that what they were proposing was more than a mere tool for communication; it was to be a medium in its own right. In this context, a *tool* is something which aids in the completion of a task while a *medium* opens up communication between two or more entities.

specifically the computer interface, consisting of hardware (the computer screen, keyboard and mouse) and software (the computer's operating system and any other program visibly running on the system). The hardware and software become a communication medium through human agency. Marshall McLuhan explains "media as translators" (1994 [1964]: 56-61), meaning that a medium facilitates the process of getting at one thing through another. The interface for human-computer interaction is such a medium. It is most effective when it becomes invisible and the users' experience of it becomes secondary to the message that is being communicated. This happens when Internet users create a website to reach an audience that is not accessible without telecommunication, thinking only about getting their message across, and other Internet users view the message not necessarily thinking about the fact that they are getting this message on their computer. Online activism sites like www.notinourname.net, or web memorials such as the one at www.remember911.com, experienced through a high-speed Internet connection, are good examples of this. Yet this does not happen with all Internet experiences because not all Internet experiences are made through high-speed connections. Additionally, the computer GUI (graphical user interface) attempts to simulate rather than stand for itself.²⁴ In human-computer interaction, the interface is a strange new zone between

²⁴ The now-familiar computer graphical user interface, known simply as GUI (pronounced gooey), was developed at Xerox's Palo Alto Research Center in the 1970s and introduced to the general public via the Apple Machintosh computer. In the 1990s other computer systems adopted a GUI as their interface changing not only the way users interact with computers but also the way they interact with each other through computers, as I shall discuss later.

medium and message. As Brenda Laurel puts it: “Computers have become an interactive representational medium” (1993:125). In other words, the interface is the medium, and the medium is the message.

Laurel’s influential work *Computers as Theatre* deals with the computer interface – particularly its use in video games – using Aristotle’s six parts of tragedy as a model for designing computer experiences. “As Aristotle observed [in the *Poetics*], art represents *not what is, but a kind of thing that might be*; environments, objects, situations, characters, and actions are represented within a wide range of deviations from real life” (125). Emphasizing the importance of addressing the users’ imagination, Laurel proposes that designing experiences for human-computer interaction can benefit greatly if handled as if it were a theatre experience, because good theatre is always created with the audience in mind. In this context, Ida Applebroog would say that the audience is an essential component of her books as performance. Similarly, it is through designing a computer interface thinking of the audience/user experience that a theatre model works best for a computer-mediated activity.

In his foreword to Laurel’s *Computers as Theatre*, Donald A. Norman explains why theatre is an excellent model for designing human-computer interaction by asking a rhetorical question: “When we look towards what is known about the nature of interaction, why not turn to those who manage it best – to those from the world of

drama, of the stage, of the theatre?” (Laurel 1993: xii). Norman, whose ideas about human information processing and effective experience design are perhaps best known from his books *The Psychology of Everyday Things* (1988) and *Things That Make Us Smart* (1993), insists that the design for any effective interface, not just a computer interface, must begin by addressing the question “what does the user want to do?” rather than with a metaphor, as the computer graphical user interface does with the desktop. In *The Invisible Computer* (1999), he argues that computers are an inadequate interface for the Internet, based on his experience at Xerox Corporation and Apple Computer Inc., among other industry giants.

Norman argues for “a human-centered technology, a humane technology” which can be achieved through “the user-centered, humane technology of appliances where the technology of the computer disappears behind the scenes into task-specific devices that maintain all the power without the difficulties” associated with the personal computer. He advocates “hiding the technology so that it disappears from sight, disappears from consciousness, letting us concentrate upon our activities, upon learning, doing our jobs, and enjoying ourselves” (1999: viii-ix). His call for an invisible computer signals the need for a more user-friendly online experience, highlighting the nature of the Internet as an interactive medium for communication rather than an electronic tool we need to handle to do specific tasks.

The new media technology which has been developed over the latter half of the 1990s to serve both audio and video over the Internet in real time, makes many kinds of live events available over the Internet to an audience larger than can fit in the physical space where the event occurred. This has turned the World Wide Web into a mass medium at times like aspects of radio and television. However, the online audience can interact with the makers of the event, as well as with each other, via text-based chat during the live show. Michael de Certeau claims that “the television viewer cannot write anything on the screen of his set. He has been dislodged from the product; he plays no role in its apparition. He loses the author’s rights and becomes, or so it seems, a pure receiver” (1984: 31). It is only with the Internet that the general public can “scribble in the margins” of what they see on their screen. Web pages with content complementary to television broadcasts are very common. Television producers offer viewers supplementary information about their shows, and sometimes include video clips from particular episodes or interviews with actors, writers or other such material. The interaction between the online performance and its audience, and among audience members themselves, extends also to the creation of other Web content in reaction to the material presented in the online performance by fans.

This phenomenon is an elaboration on previous manifestations of TV fandom, with its post-media-event community building (fan clubs, fanzines, fan conventions, petitions to series creators/network executives, and so on), particularly as discussed by media theorist Henry Jenkins. With the Internet, fans can scribble as the program airs on

television (or appears live on the web) as well as afterwards. More recently Jenkins has augmented his study of fandom and margin scribbling with an article about bloggers. *Blog* is an Internet neologism short for the Web logs, typically updated daily, kept by Internet users as a website, which serves as a publicly-accessible personal journal for an individual. People who visit blogger sites can often easily add their comment on the original postings too. Blogging facilities such as those offered at www.blogger.com provide both Web novices and old-hands all the necessary ingredients to create their own Web logs and update them as often as they want. As Jenkins observes, in the current post-2000 commercial dot-com gloom “bloggers are seizing the moment, potentially increasing cultural diversity and lowering barriers to cultural participation” (2002: 91). He does not present this argument on as broad a perspective as for his study on television fans, yet, he infers that the Internet gives television fans a greater possibility to communicate with broadcast network executives, beyond fanzines and letters, through their own websites, newsgroups, and blogs. However, it is important to distinguish between interaction *with* the medium, and interaction *about* the medium. Internet users can do both at the same time. Television viewers can interact about, but without, their medium of choice, while Internet users interact through the same medium that offers them the product(ion)s that engross them.

In the artists’ book tradition, the book is also thought to be an interactive medium. The reader is sometime specifically invited to become a co-author, such as with Robert

Filliou's *Lehren und Lernen als Auffuehrungskuenste/Teaching and Learning as Performance Arts*, where space is left on several pages for reader contributions. Conceptual artists like John Cage and Yoko Ono have made several famous examples of interactive art, which directly or indirectly relate to their book works. Cage's *4'33"*, for example, makes the audience listen to the sound of their surroundings rather than musical notes written by the composer. When Ono's collection of performance art scenarios entitled *Grapefruit* was exhibited at Franklin Furnace it appeared in a section called "Books as Performance."²⁵ Pieces from Ono's book, which instruct the reader to, for instance, "stand in the evening light until you become transparent or until you fall asleep" seek to engage the reader in completing the artist's intentions.

The Internet too thrives on a performance structure which extends beyond what the producers actually create to embrace elements created by the audience. These elements, be they officially live text-chat tied-in to the organized Web event, independently moderated message boards, personal websites, or even simple blogs, are all new ways how audiences can participate in live events. As Randal Walser pointed out in *Elements of a Cyberspace Playhouse* – where he examines Virtual Reality technology involving 3-dimensional worlds viewed through elaborate headgear and controlled through sophisticated data-gloves –interactive productions are distinctive in the way they can allow audiences a say in shaping their experience of the production.

²⁵ *Artists' Books: Japan*, curated by Yoshiaki Tono at Franklin Furnace, 112 Franklin Street, NY: March 15 - April 20, 1985.

Film yields little power, as it provides no way for its audience to alter screen images. The stage grants more power than film does, as stage actors can “play off” audience reactions, but the course of the action is still basically determined by a script. Cyberspace grants seemingly ultimate power [...] No one can know what will happen from one moment to the next in a cyberspace, not even the spacemaker (designer). Every moment gives each participant an opportunity to create the next event. (Walser 1991: 51)

Walser’s comments are a visionary generalization rather than an analysis of a cyberspace directly related to any Internet production, yet they can be applied to most online events, including webcasts where audience participation via live text-based chat is available. Audience participation can be both an integral part of the online production and form an integral part of the online events’ experience. It can possibly even influence the outcome of the performance devised by the events’ producer, as we have seen in the early experiments by Scott Zakarin with *The Spot*, and the first works presented by Franklin Furnace on the Internet, which I will discuss in the next chapter.

Chapter 4

LIVE ART ON THE INTERNET

Performance's only life is in the present. Performance cannot be saved, recorded, documented, or otherwise participate in the circulation of representations *of* representations: once it does so, it becomes something other than performance. To the degree that performance attempts to enter the economy of reproduction it betrays and lessens the promise of its own ontology. (Phelan 1993: 146)

Commenting on the work of French-born artist Sophie Calle to make a point about the ontology of performance, Peggy Phelan argues that liveness is an essential quality of performance art. Philip Auslander counters that mediatized performance is part of the realm of live performance. Auslander's point is that, "it is not realistic to propose that live performance can remain ontologically pristine or that it operates in a cultural economy separate from that of the mass media" (1999: 40). While I concur with Phelan's view that once performance is saved, recorded or documented, "it becomes something other than [live] performance," I also agree with Auslander's view that the spectrum of live performance must incorporate live mediatized performance. Auslander's argument builds on that of theatre semiotician Patrice Pavis, who writes about the relationship between theatre and the media maintaining that, "the time has passed for artistic protectionism, and the time has arrived for experiments with different possibilities" (1992: 134). His practical advice to performance practitioners

and theorists, just before the invention of the World Wide Web, is to not allow the technical complexity of the culture industry to intimidate them.

Since 1997, Franklin Furnace has demonstrated that the best way to understand the paradox we have come to call “live art on the Internet” is to do it and question it at the same time. While the term “live art on the Internet” is certainly not ideal for describing most live webcasts, the issue of liveness is certainly pertinent to all of them. As Auslander points out, “the common assumption is that the live event is ‘real’ and that mediatized events are secondary and somehow artificial reproductions of the real” (1999: 3). All arguments for and against the Internet as a viable channel for live performance circle around the notion of telepresence as an extension of the immediate physical space from which the performance originates.

4.1 FRANKLIN FURNACE GOES VIRTUAL

The forced closure of the performance space in the basement of 112 Franklin Street in downtown New York City in 1990 plays an important part in Martha Wilson’s drive to start presenting live art on the Internet seven years later. There are two ideas about what happened around the closure of Franklin Furnace’s performance space.¹ Karen Finley’s installation *A Woman’s Life Isn’t Worth Much* opened at the ground floor space at 112 Franklin Street in May 1990 and Franklin Furnace was alerted by a

¹ Performance artist Diane Torr and Martha Wilson recently did an oral history for the *Archives of the Avant-garde* page about this on the Franklin Furnace website. See <http://www.franklinfurnace.org>

Washington-based group called People for the American Way to the possibility of some resistance to Finley's show. The opening went without a hitch, and Diane Torr performed later the same evening, in the performance space in the basement. Torr's performance, *Crossing the River Styx*, was very loud. The patrons who attended the performance were offered cotton balls as earplugs. One of the patrons was outraged at how loud the performance actually was and decided to leave early. The door was locked, and the buzzer that opened it was not clearly marked. After he left, he called the New York City Fire Department and claimed that Franklin Furnace was operating an illegal social club.

At that time there was a concerted effort by the city to close illegal social clubs because there had been a fire in the Happy Land Social Club and eighty-five people had died. Wilson was served with a citation by the Fire Marshal because the people in the basement had to egress through the hallway which went past the boiler room and there is a fire regulation, which states that you cannot exit past the boiler room. This resulted in the permanent closure of the performance space in the basement at 112 Franklin Street.

The Franklin Furnace staff and the artists working there at the time argued among themselves whether the call to the fire department was politically motivated to close the performance space, or if this was just a case of a cranky person who was unhappy that he could not leave from Diane Torr's loud performance. Those who believe that

the closure was not an accident base their conviction on the fact that Karen Finley's attorney claims that she was politically harassed for her controversial work at the time, and the People for the American way had warned Franklin Furnace that putting on Finley's *A Woman's Life Isn't Worth Much* would have serious repercussions for the organization. Conversely, *The Village Voice* staff writer C.Carr claims that on the day her article "The Sexual Politics of Censorship" appeared in the *Voice*, a man phoned her to say that he was the one who had called the Fire Department "not because of Karen Finley's installation but because of Diane Torr's performance...he could not take the high-decibel music" (1993: 249-250). According to Carr, the man refused to identify himself.

Subsequent to the closure of the Furnace's performance basement, in the summer of 1990 Martha Wilson received letters from the General Accounting Office, the Internal Revenue Service, and the New York State Comptroller resulting in a triple audit Wilson believes that at least one of these audits was triggered by Karen Finley's show because the government had defunded her and other controversial artists that summer. Other controversial artists had shown their sexually charged work at Franklin Furnace. Still, it was not this that led to the decision to sell the space at 112 Franklin Street. That decision came in 1993 when Wilson and her board of directors had started thinking about a long term plan for the organization.

The first plan was to turn the place into a downtown arts emporium with exhibitions and performances and perhaps an Internet Café. Since Franklin Furnace now owned the building, they had planned to restructure the architecture of the place to be fully compliant with the laws and regulations for such public gathering venues. Meanwhile, the organization started presenting performances “in exile” – that is to say in other performance spaces around lower Manhattan: Judson Memorial Church (1991), Cooper Union (1992), The New School (1993/94), PS 122 and New York University (1994/95). The installation program continued on the ground floor at the Franklin Street space until February 1997, even though the space had already been sold for several months by then. Wilson’s decision to sell the space was coupled with the idea of turning Franklin Furnace into a production company – as I explained at the beginning of Chapter 2 – but it wasn’t until mid-1997 that Franklin Furnace started preparing to present live art on the Internet.

For many years, Franklin Furnace claimed that it was “on a mission from god to make the world safe for avant-garde art,” the decision to go virtual can also be read as a move to make avant-garde art safe for the world. The thirty-two new works presented by Franklin Furnace on the Pseudo Online Network between 1998 and 1999 deserve more attention than they have received so far, not only because they are a historical milestone in the development of webcasting, but also because they have questioned the relationship between presence and virtuality in a context of liveness. This exploration has often been very overt as with the pieces produced by, for example,

Dahn Huini or Sarah East Johnson. Other works, such as those by Jason Bowman or Jon Keith, offer rich material for discussing the issue of site-specificity with performance presented in a physical space (and time) removed from that of the audience. I will look closely at each of the pieces created by these four artists with grants from Franklin Furnace, after I've outlined the environment in which they were produced. What was happening on the Pseudo Online Network at the time Franklin Furnace decided to start presenting live art on the Internet was significant in its own way, as we shall see. At the same time, Pseudo.com was enriched by the experience of the work of the artists presented by Franklin Furnace.

4.2 THE PSEUDO STORY²

Pseudo Programs Inc. started out in 1994 as the text-based chat service provider to subscribers of the Prodigy online service. By the time of its demise in September 2000 it had evolved from a text-based multiple chat-room outpost to a multi-channel webcasting network. Pseudo founder Josh Harris, whose previous business ventures include the creation of Jupiter Communications, one of the world's leading research firms for online demographics and trends, "left" the corporate world to start the

² My description of the Pseudo Online Network is based on interviews and personal observations I made between 1998 and 2000 when I was considering writing an in-depth study on this company. Some of the material about Pseudo that appears in this chapter comes from my presentation on a panel I organized during the 4th Annual Performance Studies international Conference which took place in April 1999 at Aberyswyth, Wales. Martha Wilson and Pseudo co-founder Robert Galinsky collaborated closely with me for the presentation in Wales, which was sponsored in part by Pseudo Programs Inc. I interviewed Galinsky again in the summer of 2001.

company at a time when the general content of the Internet was libertarian rather than capitalistic as it had become by the end of the decade.

By 1995 Harris had developed an online service called *ChatRadio*, wherein people chatting online within the range of the broadcast could listen to and participate in the same radio show wherever they were. When it became technically possible for audio signals to be carried over the Internet in real time, Pseudo used RealAudio to move *ChatRadio* from the 1050 AM frequency in New York to the World Wide Web. When RealAudio evolved into RealVideo, Pseudo embraced the new technology and claimed that it was the world's first Internet-based television company. Within this new structure, Pseudo gave an online platform to performance producers like Franklin Furnace, among others, via the now-defunct ChannelP.com, also known as The Performance Channel. This went on until Pseudo succumbed to the pressures of Silicon Alley and joined the long list of bankrupt dot-com companies. Although Pseudo had relatively humble beginnings, by 1999 it had developed aspirations to function like more conventional corporate media companies, and by the beginning of 2000 had reorganized its originally eclectic output into one not too different from that offered on cable television. During its final two years, Pseudo shifted the concept of Web streaming media towards what Josh Harris called “interactive TV on your computer” marking the fact that the company had graduated from what appeared to be the crazy exploits of a corporate performance artist to an operation which aims to rival

the conventional corporate media giants.³ This move coincided with the hiring of David Bohrman as the company's CEO. Bohrman is a seasoned traditional media executive who until the end of 1999 worked for cable TV channel CNNFn where he was the Executive Vice-President overseeing production, operations, news coverage, and programming. This was the ultimate confirmation that Pseudo Programs Inc. wanted nothing more than to be accepted as a corporate media organization.

Between 1996 and 2000 Pseudo Programs Inc. was funded with more than \$30 million.⁴ Still, in spite of Josh Harris' financial acumen, Pseudo was not exactly concerned with mainstream entertainment until early 1999. At that time, the Pseudo Online Network consisted of nine diverse channels: *88HipHop* showcased Hip-Hop music and culture, the *All Games Network* was mainly for computer and video game enthusiasts, *BizTech TV* appealed to people interested in Business and Technology, *Koolout* played vintage urban music, *Luscious* was all about romantic lifestyles, sex,

³ Harris presents himself publicly as a performance artist more often than he presents himself as a businessman. See, for example, these magazine articles: *Silicon Alley Reporter* Vol.2 #11 (November 1998) 36-48, "The Warhol of Web TV" *New York* Vol.32 #49 (December 20-27,1999) 120-130, and "Steaming Video" *Wired* 8.11 (November 2000) 150-166.

⁴ Reuters, Friday January 26, 2001: "The assets of Pseudo.com, which went bankrupt in a bid to pioneer interactive Web-based entertainment, were sold Friday for \$2 million to INTV Inc., a New York-based television production company. [...] Ed Salzano, CEO of privately owned INTV, said Pseudo, an experimental entertainment venture funded with more than \$30 million, had tried to do too much and did it too expensively. "Their burn-rate was \$2 million a month, which was excessive," Salzano said. "They were producing 10 hours of live content a day, a tall order even for an established network." The full news story from reuters is available online via Yahoo! at http://dailynews.yahoo.com/htx/nm/20010126/en/industry-pseudo_1.html

and relationships, *Static* featured counterculture and rock music from New York City, *Streetsound* specialized in electronic music, and *ChannelP* was the Performance Channel. There was also a channel called *Pseudo Shorts*, offering a daily dose of the best short clips from the various Pseudo channels, as well as sports, an animated cartoon show, and other short webcasts. I shall concentrate only on ChannelP, the Performance Channel, since my subsequent arguments are built on productions presented by Franklin Furnace on this channel. However, the Franklin Furnace online program was not presented in isolation and therefore a brief outline of the other offerings on ChannelP.com will help contextualize it.

ChannelP's most extensive program schedule ran from early 1998 to late 1999 and consisted of four main webcasts: *ActionNY*, *Taylor Mead*, *GO! Poetry*, and *Franklin Furnace*. Each of these webcasts was presented live and then immediately made available for on demand viewing through the ChannelP.com online archive. *ActionNY* was updated every weekday at midnight and featured short "net movies". This series of webcasts featured live NYC street action, walking tours of the city with Andrew Einhorn, or Galinsky, Tom Moore's Wednesday Zunday, footage relating to New York City's trendy culture guide Simon Says, clips from independent movie makers from Offline Entertainment and other items from the alternative New York art scene. Furthermore, this show presented the aesthetics of everyday life in New York City as well as mini-probes on what New Yorkers think on current events such as racial profiling during the Amadu Dialo case, or whether oral sex is *real* sex during the

Monica Lewinsky scandal. By any measure, *ActionNY* was the melting pot of ChannelP and the Performance Channel's major contribution to the Pseudo Shorts channel which appeared as a pre-set option on the RealPlayer channel bar.

The largest audience grabber for ChannelP was often Taylor Mead's webcast. Taylor Mead is a pioneer of queer film and has been active as a visual and performing artists in the downtown New York scene for the last forty years. In 1963, he met Andy Warhol and went on to become one of the Warhol Superstars. His show on ChannelP dealt mainly with political satire from a queer point of view. No mainstream broadcast network would dare have Taylor Mead on its program schedule. During his webcasts, Mead chatted with art film makers, actors, writers and, as one would expect, the ghost of Andy Warhol. His autobiography, from which he occasionally read during his webcast, is called *Son of Warhol*. Sometimes, Mead also read poetry or sang songs in his own unique way. ChannelP offered a regular dose of poetry with *GO! Poetry*, a weekly webcast of spoken word and literary performances by New York City and international poetry figures. The poetry presented on *GO! Poetry* ranged from the most progressive slam poets to contemporary folk lyricists from various ethnic origins, with political activism and all sorts of interviews thrown in between readings. One of the show's highlights was when the internationally-renowned actor Willem Dafoe was invited to read poetry by T.S. Eliot. The poetry webcast appeared live on ChannelP.com every Monday evening and was co-produced by Meaghan Williams and Galinsky.

Before he started working full-time with Pseudo, Galinsky was teaching conflict resolution and drug prevention, using theatre, film, and poetry, to special education kids in public school system of New York City's all five boroughs through a private company called L.E.A.P. – Learning through an Expanded Arts Program. A self-made man from Connecticut, Galinsky dropped out of college where he was majoring in special education after he decided to become a professional performer in 1986. Eventually he moved to New York and tried to make it as a writer. It was in New York that he realized that nobody was interested in producing his work. He also understood that producing his own work meant that he could retain full ownership of his work, and preserve his artistic identity. Galinsky met Josh Harris in 1994 while producing his shows *Live Axe!* and *Galinsky's Full-Frontal Theatre*, both multi-genre shows, which can be described as a cross between cabaret and vaudeville. These shows were presented at La MaMa's Galleria and at the Play Quest Theater on 28th Street in Manhattan.

Harris liked Galinsky's work and energy and invited him to produce his *ChatRadio*. At that time Galinsky did not own a computer, did not have email, and had never been on the Internet. Sound designer Tom "TBO" Linder, who was also a co-founder of Pseudo, showed Galinsky what computers could actually do. Harris wanted Galinsky for his skills as a writer, performer and producer. At first Harris called what he was doing Jupiter Interactive but since the name was similar to Jupiter Communications,

the company he had just sold, he changed it to Pseudo. Galinsky's association with Harris and the setting up of Pseudo was not enough to make a living from, so he also took up a job with Prodigy as a Web Interest Group Coordinator. The interest groups were intended to bring together communities of people interested in various different topics, and Galinsky was assigned to coordinate a poetry and spoken word interest group, for \$2,500 a month. During his short tenure at Prodigy, Galinsky collected about one hundred and fifty poems from his group members and was preparing to have them published in a paper-based book, but due to a shift in business strategy by Prodigy, the interest groups were discontinued and the poetry book never made it to print.

During the early days of Pseudo, the set-up was such that everyone involved in the production of the radio show worked within a collaborative team. Galinsky's main task was to structure the one-hour AM radio show on WEVD, but he was also charged with creating promotional materials for that show, striking deals and bartering with other websites, creating affiliations with non-website businesses, getting sponsorships, producing live acts in the radio studio, doing voice-overs, hiring other voice-over talent, hiring other talent, booking the show, and running the control board during the live broadcast. Galinsky explained to me how the shows were organized.

Every show we booked three or four technology-oriented people who could speak about the changes that were happening with the Internet, because it was changing all the time. First, the modems connected at 14,400 Kbps and then it was 28,800 a week later. Then we also had the sexy side of things. We booked people who were doing interesting content on the Web at the time, like *The Spot*, which was the first on-

line soap-opera from California. [...] My philosophy was, and Josh agreed with it, that we didn't just want to bring the Net out on to the radio but we also wanted to bring people who had never been on the Net to the Net and then out to the radio. It was a very cast-action packed one hour. We had the Isley Brothers on the show, and we invited the cybercafés at the time, the guys from alt.coffee on Avenue A. With all the dot-com failures, alt.coffee is still there! They would come in and surprise us during the show with some cappuccinos and some food for us, and then we'd plug them and talk about what they were doing. We were really marrying what was off-line with what is on-line. It wasn't like a *Home Improvement* kind of show about the Net. It was about getting to people who had never really touched the Net, and how it can really affect that person, or what that person's opinion is, or how their work as artists might be affected by it.

There were very few other such endeavors on the Internet at this time, and Pseudo was the only group of people dealing with Internet culture beyond the technical aspects. Besides, the technology was quite primitive compared to what is available now, less than ten years later. The radio show was broadcast on Thursday night starting at 10pm. A few minutes after 11pm, one of the Pseudo founders would take a one-hour tape of the radio show to Harris' place at 600 Broadway – the space eventually became Pseudo's 10,000 square-foot loft on the corner Broadway and Houston – and start the encoding process, so that within two hours after the end of the broadcast, it would be available on the Internet.

Unlike most other audio material presented online at the time, the Pseudo show was always presented as streaming audio files. During the first five months, the show was not streamed live but only on demand after the end of the show. At first the live streaming was restricted to audio only and very few people had the required technical set-up to hear it. Galinsky told me that “the first night we ran it, it must have been like

what Alexander Graham Bell did, except we had a party going on with about forty people, and somebody ran down the loft to the another room where there was a computer and went to hear it live, with all the crackling.” Right at the start of all this, Prodigy had contracted Harris to build new chat software, and he told them that the only way he would do this is if they would let him have his own area labeled “Pseudo” on Prodigy chat, with a revenue sharing model based on usage figures as well as a retainer fee. During Pseudo’s year-long contract with Prodigy, they operated chatrooms with name like the Neighborhood Pub, Vampire Pub, and Domination & Submission. From Prodigy, Pseudo netted about \$150,000 a month, which went right back into developing Pseudo.com. With this money, and other funds raised through Harris’ corporate contacts, Pseudo had enough money to continue expanding, and by the summer of 1996 had started experimenting with streamed video.

4.3 SILICON ALLEY’S REAL PERFORMANCE

When Pseudo.com started describing their productions as “TV you can’t get on TV” and “interactive TV on your computer,” switching from an audio-only to a streaming video operation in 1996, another company had already registered the domain name OnlineTV.com and started webcasting live entertainment. For some time it appeared as if the two companies were peas from the same pod. Time has shown that they are actually somewhat different from each other. Unlike Pseudo, OnlineTV survived the dot-com bust and continues to put time, money, and energy into non-mainstream

programs. Still, the main content on OnlineTV.com has been by paid membership access only since September 2001.

OnlineTV.com has been in operation with webcasts of live entertainment since March 1996, sometimes offering as many as fifty live music webcasts a week. The company was incorporated in the summer of that year and subsequently expanded to a multiple channel capability to include online channels for music, films, and art events. With over three million page views per month, it has offered a hub for its other offshoots, such as MusicTV.com, MovieTV.com, and ThisIsArt.com. Not all these projects were developed fully, but in the summer of 1998, OnlineTV broadened international presence with its first site aimed at the British market and anyone interested in it, at OnlineTVUK.com. Comparing his experience in New York with his experience in London, OnlineTV.com founder Rick Siegel told me that “over the years the UK has been supportive while the USA has not. Bands are apathetic here and the clubs are not interested in helping out.”⁵ The here-today-gone-tomorrow scenario with many dot-coms has not helped things in the United States either.

One of the few Net entrepreneurs with a practical background in the arts, computing, and business, which spans more than two decades, Siegel has stayed aloof from the Silicon Alley scene, as the New York City-based venture capital interest in new media

⁵ I interviewed Rick Siegel in April 2002. Much of what appears in this chapter about OnlineTV.com is based on that interview and personal observations I’ve made from following OnlineTV.com on and off since 1998.

technology is known, partly by design and partly through misunderstandings. *Wired Magazine* ran an article about Silicon Alley in July 1999. Jason McCabe Calacanis, editor-in-chief of the *Silicon Alley Reporter*, a magazine that began as a 16-page photocopy and eventually grew to a 200-plus page glossy publication at the height of the dot-com boom, was the subject of the article. Calacanis is quoted as saying that Siegel is a “total idiot,” OnlineTV is labeled as “lame,” and Siegel’s websites are dubbed “amateurish.” The *Wired* article then goes on to give Siegel’s point of view about the *Silicon Alley Reporter* editor, whom he sees as “an obnoxious kid who doesn’t know how to use his power.”⁶ *Silicon Alley Reporter* ceased publication in the fall of 2001.⁷ OnlineTV lives on. Siegel claims that he has managed to keep on going because he works within the means and structure of his business plan.

Since November 2001, it seemed that Siegel had decided to sell the company, because whenever anyone logged on to www.onlinetv.com they were greeted with the following announcement: “Domains for sale: OnlineTV.com NYCTV.com LatinTV.com SingleTV.com Virtuallabel.com All reasonable offers considered. Some domains come with registered trademarks.”⁸ When I contacted Siegel about this, he said that I was reading more into this action than he had intended and explained that, “every good idea gathers its vultures, and many destroy the host.” More than anything

⁶ Available online at http://www.wired.com/wired/archive/7.07/calcanis_pr.html

⁷ In January 2002 *Silicon Alley Reporter* resurfaced as *Venture Reporter*, and its new tagline is “Follow the money.”

⁸ See <http://www.onlinetv.com/forsale.html>

else, the “domains for sale” announcement is a technical issue from a court ordered settlement with former business associates, as he explained to me, “If I can get some millions from a couple of the domains and pay off a small settlement and fund some promotion, I would be happy. If they do not sell, I am still complying with the court order as I only have to put up "for sale" to comply...I am not giving up on the company or the idea. Just scrambling to find alternatives to keep it running to what is available now.”

In 2002, Siegel looked into turning OnlineTV into a not-for-profit organization. He wanted to move away from models driven by advertising money and towards funding from members, donations and grants. Before starting OnlineTV, Siegel worked as a personal consultant to Bill Baker, President of WNET Thirteen (PBS in New York City), where he was responsible for a major departmental re-organization that resulted in a huge cut in operating costs. He has used that experience to work against all odds to keep the Web as open as possible to alternative and non-mainstream performers. This is quite in line with his other projects, such as the independent freeform radio station WFMU, broadcasting to the New York City area from New Jersey, where he donated time to create their first website and coordinate their early webcasting efforts.⁹

⁹ There are no fixed station formats on freeform radio. DJs and presenters have complete control over program content. They tend to be somewhat liberal or radical even if the programs are not always overtly political. Naturally, freeform radio is bound by FCC regulations such as station identification and restrictions on obscene language.

These experiences have shaped Siegel's thoughts about running OnlineTV as a not-for-profit organization.

This parallel reality of Siegel's OnlineTV contrast interestingly with Franklin Furnace's fate as a presenter of live art on the Internet. The main reason that Franklin Furnace presented ten artists through Pseudo.com in the spring of 1998 is that, as I mentioned above, Martha Wilson had been seeking for some time to bring performance art to a larger audience via television. Several factors, including mainly the organizational and legal restrictions of TV programming, forced Wilson to consider using the Internet as an alternative platform for the Franklin Furnace performance program. As Wilson herself explains whenever she speaks about the evolution of Franklin Furnace from a presenter of avant-garde art to a virtual institution, things did not happen the way they did because they were planned that way but because circumstances dictated they be that way; or opportunities arose while the organization was groping in the dark, looking for ways to fulfill its life-long mission to present alternative art to the world.

Franklin Furnace's first series of live art on the Internet was called *The History of the Future*. Among the ten works presented during this first season at Pseudo were pieces of temporal art, such as that by Glasgow-based artist Jason E. Bowman, funded in part by the Scottish Arts Council. Besides its artistic merits, this piece is noteworthy because it brings to the fore the issue of liveness as a necessary component of

performance. The Franklin Furnace program press release for this production describes the piece thus: “*Untitled (Performance for Cyber Broadcast)* will involve the durational force of one continuous action which will question the virtual one-to-one relationship between the performer and the viewer/browser that the cyber broadcast may appear to offer.” Over a period of several hours, Bowman sanded a baseball bat into a door wedge following these written instructions: “Perform in a white room with the door closed behind you. Sand a baseball bat into a door wedge. Use it to open the door. Leave the space.” What appeared online during both the “live” and the archived “Cyber Broadcast” was 30-minutes worth of edited shots from the full performance. Had Bowman presented his piece in front of a live webcam rather than a recording video camera, the dynamics of the live event would have been significantly different, because “the durational force” of the work would have been shared with the audience rather than inferred via video editing techniques. The Franklin Furnace presentation of Bowman’s piece does not constitute a live performance for a live audience, but a document of a live performance witnessed by a video-recording camera and crew, and a small invited audience of Franklin Furnace members and friends. What Franklin Furnace presented to the public of Bowman’s performance was merely an edited video document. The video document does not show the true or actual duration of the piece. It only infers what happened between the different shots of Bowman in performance via the size of the baseball bat.

Presence is the absolute prime requisite for liveness in both the shared-immediate-physical-space and the live-mediatized-event models of performance. This is highlighted by another piece presented during Franklin Furnace's first season of webcasts on Pseudo: *Sunday Afternoon in the Unisphere*, a fictionalized reminiscence of the 1964 New York World's Fair by Jon Keith. Keith adapted the style of his theatre-based work for the Internet. One important component of his piece was a map to guide the audience through his tour of the Unisphere. In the online map, when you rolled your mouse over certain places, related things pre-programmed into the system popped up. Franklin Furnace has preserved the RealPlayer file from this performance and published it in a CD-ROM along with material from all the other performances it presented during this season. The map is no longer available on the Internet, nor has it been archived by Franklin Furnace. This shows that the organization is still not properly equipped to preserve the work it produces, even though it is technically easier to preserve elements of live art from the Internet than it is with any other ephemeral art form. Performance documentation and archiving are crucial aspects for the survival of Franklin Furnace in the future. This situation shows that through the organization's foray into the online world, we can truly start to comprehend the new parameters of the relationship between live performance and performance documentation involved in presenting live art on the Internet.

The RealPlayer file preserved from Jon Keith's original webcast clearly indicates that what you see now is a document of an event no longer available as a live performance.

In his first on-camera appearance during the now-archived webcast, Keith says, “I wanted to remind you that there’s a web page to accompany this cybercast. You can access that page from a link at the top of the ChannelP homepage, and it will give you something to play with while you’re watching me tucked away in the corner of your computer monitor. So, take the time, download the page. Also, during the cybercast the chat lines will be open, so if you have a comment, feel free [to chat with me and others on the chat line].” Both these components of Keith’s live performance (presented at ChannelP.com at 5pm on Friday, March 20, 1998) are no longer available as part of the experience of the archived performance. Also, due to the newness of the medium and Franklin Furnace’s lack of technical know-how in archiving live art on the Internet, neither the web page, including Keith’s interactive map, nor the chat log have they been preserved or documented for either off-line viewing or at Franklin Furnace’s own website. In the video document, Keith says that the web page will still be online when his webcast is archived. While this was true before Pseudo folded, Franklin Furnace has not managed to preserve this part of Jon Keith’s piece created as live art on the Internet.

Franklin Furnace has been seriously engaged with performance documentation for more than two decades. In 1981, Bill Gordh, performance artist and staff member at Franklin Furnace, interviewed Linda Burnham, editor of *High Performance*, about several issues related to performance documentation. Burnham talks about the feedback loop created when artists view documentation of their work prepared by others and defends her attempts at improving performance documentation by saying

that she was “sick and tired of looking at all this ephemeral crap in magazines and not being able to tell what really went on” (19). Performance purists would have us believe that to tell “what really went on” during a live performance we need to be there when it happens. Live art on the Internet challenges this position because, provided that there is adequate archiving of the live event, it is indeed possible to tell “what really went on.” What makes even the best documentation of live art on the Internet “something other than [the] performance” is the fact that you are not able to interact with the piece, the performers, and other audience members as you possibly could during the live event. The other important variable is the context in which the original event is viewed. Viewing a politically charged performance years later, when the intricate tension between the event and the social, political, and/or economic environment has changed, makes the reception of such a piece quite differently by its audience. Generally speaking, this is not a problem over relatively short periods of time, and some pieces age well either because they deal with universal themes or because they serve as a time-capsule to be revisited for a taste of the way things were at a specific point in time.

4.4 THE FUTURE OF THE PRESENT

For the 1998-99 season, Franklin Furnace produced a series of 22 webcasts called *The Future of the Present*. The poster and all press releases issued by Franklin Furnace at the time describe this series as “22 netcasts of temporal art.” The concept of time in performance art has been given a new life with the presentation of live art on the

Internet since it is now possible to present interactive live art to an audience which is not present in the immediate physical space where the performance is being presented. Two artists tackled this and other aspects of live art on the Internet directly during Franklin Furnace's second season at Pseudo. Dahn Hiuni's webcast *Art History 487: Late Twentieth-Century Art* takes the form of a fifteen-minute pre-recorded art history lecture delivered over the Internet by a "descendant" of Hiuni in the year 2264. When the piece was first webcast from the Pseudo studios, on Friday May 7, 1999, at the end of the lecture, Hiuni engaged in live "Global Q&A" with his audience/"students" via ChannelP.com live chat interface on the Web. The lecture focuses mainly on his own work but moves into a fictional narrative of Hiuni's work in the early years of the twenty-first century, claiming that "Hiuni continued to perform on the Internet...eventually becoming a household name after the merging of the Internet and television. In 2014 he conceived his first son, live on the Internet." Interestingly, he goes on to talk about a "neo-dark age" in the twenty-first century, when all digital art created, delivered and stored on computers was supposedly lost in what he calls "the Great Computer Crash of 2096" – a hidden aftereffect of the Y2K bug. While this narrative is amusing as a comedic performance, such a mishap is not only unlikely, but also technically impossible since unlike art in the age of mechanical reproduction, digital art is not subject to the relationship between an original and a copy. Live art created and presented on the Internet is perhaps the only digital art which is different on repeat viewing. Documentation and archiving (two different activities involving copies of the original live digital art which are often combined into one) are only

different from the original (or excerpts of the original) work in that the artist's actions are not co-present in time with the beholders of the work.

Outside the immediate realm of live art on the Internet, ABCnews.com produces a regular webcast hosted by Sam Donaldson. Just like the shows presented on the Pseudo Online Network, Sam Donaldson's production is first presented live to a Web audience and then archived online for on-demand viewing. This concept is so alien to broadcasting veterans like Donaldson that he regularly pokes fun at the idea of evoking liveness in archived webcasts as he spurts out the standard signing-off phrase customary with many news anchors: "I'm Sam Donaldson...*Live!*" The notion that one's live webcast can be made accessible for streaming on demand contradicts the established conventions of immediacy and ephemerality associated with live performance, even if presented from a remote location as with live television.

Another webcast from the second season during which Franklin Furnace presented live art on the Internet at Pseudo highlights the importance of recognizing that performance on the Web needs to be specific to the characteristics of this new medium. Choreographer Sarah East Johnson's Franklin Furnace webcast appeared live on ChannelP.com on Friday, November 20 1998, and featured a discussion between Sarah East Johnson, her videographer Nancy Brody, and performance artist Mary Klien. The discussion was moderated by Martha Wilson and dealt with the relationship between the physical body and live performance. During the webcast,

Johnson claimed that there should never be any hope of replacing the possibility of seeing performers live, “to hear them breathing, see them sweating, and to hear them thump on the floor, or not thump.” Her belief is that mediatized performance can make live performance, where the performers and the audience are in the same physical space, even more precious and more valuable the less available it becomes. She also points out that live performance is more expensive to make, support, and go to.

During the webcast, we are shown dances made specifically for video which East Johnson shows during her performances in theaters and other venues. She also describes how different dance for video is from dance created to be performed in front of a live audience. While admitting that she does not know “what’s gonna work as art” on this new medium, during this webcast, Martha Wilson clearly shows a preference for work pre-designed for video over live work captured on the Internet, “because the image quality is more lush.” Wilson recognizes that one of the major features of the Internet that makes it enticing for an audience is the ability to view the work whenever they want. Mary Klien asks whether “the Internet is a body unto itself, that we should be using it within that framework.” Perhaps because performance on the Web is (still) so new, Klein conflates text-based performance on the Internet with webcasting and fails to articulate the difference between representations of “the body” in performance in these two aesthetically dissimilar genres of Internet performance. Still, she is very aware that there is something more to the new medium, and proposes that the “live performance has to fuse with the technology” to make a new visual language that is

presented by and through digital art. Wilson adds that it is very hard for performance artists to perform for dead-air unless they are already used to performing in a radio, television, film, or some other kind of recording studio.

To create an in-studio audience for the artists at ChannelP, Wilson regularly invited her friends and encouraged the artists to bring in their friends, so the show would be performed to an audience present in the same physical space as the performance artist during the live presentation of the piece. By doing this, Wilson serves the artists' varying levels of mediaphobia but fails to consider the idea that with live art presented on the Internet, the live performance goes beyond what happens in the originating location and what comes out of the streamed media player, because the audience can (and does) almost always interact with the performers or their piece, in ways not unlike radio or television call-ins from listeners and viewers. Having attended some of the webcasts live at the Pseudo studios at 600 Broadway, I can say that what the in-studio audience sees is a foregrounding of the background behavior directly related to the performance, as Bertolt Brecht first demonstrated in the 1920s, John Cage recommended in the 1950s, and the Judson Dance Theater implemented in the 1970s.

Even when Franklin Furnace's association with Pseudo ended, this aspect was often present in the live art presented by Franklin Furnace in what it now calls "born to be digital" aspect of its shows, even if some of the works presented after 1999 do not

necessarily involve a webcasting component, for example *Desktop Theater* by Adrienne Jenik and Lisa Brenneis, presented by Franklin Furnace in 2001.

In an article written for the Fall 2001 issue of TDR, Jenik explains that Desktop Theater is both the name of her performance troupe and a new performance genre, which she also describes as Internet street performance, because it is performed in public gathering places where virtually anyone can pass by and comment on what is going on. Since 1997 Brenneis and Jenik have performed about thirty live Desktop Theater experiments ranging from an online version of Becket's *Waiting for Godot* at The Palace (an online graphic chat environment)¹⁰ during the Third Annual Digital Storytelling Festival, to an elaborate original online performance in front of an audience sitting in a theatre space at Odin Teatret's Holstebro center in Denmark for the Transit III Festival of Women in Theatre.¹¹ In both these performances, the audience was made up of Internet users logged on to The Palace and festival attendees who watched the online action on a projection screen but also watched the background work foregrounded as part of the performance. In other Desktop Theater

¹⁰ The Palace and other avatar-enhanced chat environments contain their own extemporized performances within the same parameters as MUDs and MOOs, adding graphic representation to online chat making the performative aspects of online masks and masquerades somewhat more noticeable. It also makes the puppetry characteristic of such online performance more pronounced since it is fairly easy to imagine even the two-dimensional graphic representations as sophisticated cardboard cut-outs like those made for toy theatres.

performances, such as *The World of Park* a reworking of Yoko Ono's performance text *Grapefruit in the World of Park* from 1961, the audience is made up of Internet users only. *WaterWars*[2], the piece Brenneis and Jenik presented in Denmark, was written and directed by Helen Varley Jamieson, who subsequent to that collaboration interned at Franklin Furnace and developed the ABC Experiment.

The “a” in The [abc] Experiment stands for avatar, “b” stands for body, and the “c” is for collision.¹² This project was initiated by Varley Jamieson to explore the intersection between writing for the theatre and writing for the Internet. She uses the word *cyberformance* – and its variations *cyberformer* and *cyberforming* – in an attempt to distinguish this activity from other forms of theatre and writing, as well as other forms of Internet performance, webcasting, and so on. The [abc] Experiment exploits the Internet’s expanded structure for collaborative work. “The concept of the solitary artist in the garret has never been very applicable to theatre, where collaboration happens through workshopping, rehearsals, improvisation and devised group work, but email and the Internet are now allowing intimate collaboration between writers and performers from different sides of the globe” (Varley Jamieson 2001 [2000]). The [abc] Experiment evolved into the Avatar Body *Collision* troupe, which consists of Helen Varley Jamieson, Karla Ptacek, Leena Saarinen and Vicki

¹¹ The official Desktop Theater website at www.desktoptheater.com contains good documentation about most of the collaborative work of Jenik and Brenneis, including a how-to guide for The Palace, an archive of streaming video captured during the live performances, and complete text logs to view online or download.

Smith.¹³ They have other collaborators from both the United States and Europe involved in the process, and the troupe is officially “based” in Wellington, New Zealand. They work across various time-zones and yield work which can be witnessed both online and in offline presentations projected onto a screen for a seated audience in a more conventional theatre setting. The questions raised by The [abc] Experiment – “how is technology changing our definitions of ‘theatre’?” and “what place does cyberformance have within theatre?” – are similar to ones raised by many artists looking at the Internet as an alternative space for performance. There are no definite answers for such questions, as yet, because aesthetic performances on the Internet are still not produced and presented to audiences accustomed to conventions and acquired concept references.

In April 2002, Varley Jamieson gave two public lecture-demonstrations of The [abc] Experiment in New York City. The first occurred at NYU’s Department of Performance Studies, and the second was at the first World Media Arts Blender organized by Galinsky at Arts International.¹⁴ Karla Ptacek had just introduced the abc

¹² The [abc] Experiment website is at <http://www.abcexperiment.org>

¹³ The Avatar Body *Collision* website is at <http://www.avatarbodycollision.org>

¹⁴ See http://www.artsinternational.org/archive/media_blender/helen/hvj_blender.htm for post-event information and pictures on the Arts International website.



Figure 2: Helen Varley Jamison presenting The [abc] Experiment at Arts International in New York, 2002

troupe to iVisit and Varley Jamieson used it to keep visual contact with her colleagues in their remote locations during both events, and to illustrate the inner workings of their work to the audience at her presentations in New York. During her lecture demonstrations, she used two computers and projected their outputs on separate screens: one showed their online performance space on The Palace, and the other showed the iVisit interface (see Figure 4.1). After her visit to New York, Varley Jamieson told me that the *Avatar Body Collision* troupe started to add the iVisit layer to the performance itself. This component of the performance highlights the backstage aspect and the liveness of the event. It also brings a new visual dimension to a predominantly text-based type of online performance. Using videoconferencing on the Internet this way provides an interesting middle-ground between streaming video carefully produced for the web and webcasting the periodic-refresh stills of first generation webcams.

4.5 THE HISTORY OF THE FUTURE

In the spring of 1998 and during the 1998-99 season, Franklin Furnace was a client of Pseudo, paying \$1,500 per event for the space, technical staff and full webcasting services they provided. Soon, Martha Wilson realized that she was providing content for Pseudo and rightfully the payment arrangement should be the other way around. Pseudo agreed that Franklin Furnace should be paid by Pseudo Programs Inc. to bring in content to its online network, so Galinsky arranged for Franklin Furnace to be paid for a series called *The History of the Future*¹⁵ with performance art works on video and video documentation of performances selected by Wilson around themes like The Body as Art Medium, Endurance, Art in the Environment, Feminism, Art in the Age of AIDS, The Culture Wars, Gender Benders, Race, and Art/Life. For its new role as Pseudo curator, Franklin Furnace was to be paid \$25,000, but only half that amount of money was paid because Pseudo closed down ChannelP in December 1999 due to serious financial difficulties. This experience helped Franklin Furnace understand that the organization possessed two very important things that could be developed: (a) a long-standing relationship with performance artists, and (b) intellectual property that could be developed as pedagogical resources. The material originally intended for *The History of the Future* form the basis of the fifty works that are now included in The Franklin Furnace Networked Digital Video Archive Prototype project co-produced with The Studio for Digital Projects and Research of New York University.

¹⁵ Galinsky named both this series and *The Future of the Present*

From the downturn in the economy around the year 2000, which resulted in the closure of many online business ventures, Franklin Furnace learned that it needed to either organize its own technical set-up or return to the safety of an academic environment. A lack of expertise on dynamics of the former option led Franklin Furnace to start collaborating with The Parsons School of Design through the Netart Initiative, an association created to foster the creation and documentation of art on the Internet.¹⁶ Since 2001 Franklin Furnace has started presenting less works each season, so that the artists can have more time and resources made available to them through the annual Franklin Furnace grants program.

The World Wide Web can be viewed as a global autobiography project. Janet Murray recognized this even before Franklin Furnace and others had created a “safe” environment for live art online. She wrote in 1997 that “independent digital artists are using the Web as a global distribution system of underground art, including illustrated stories, animations, hypertext novels, and even short digital films” (1997: 252). She also observed that the performance of people’s everyday lives online, as well as the performance of everyday online lives, have brought digital narrative closer to the mainstream. The Internet has changed from the cultish environment it was when Franklin Furnace first went virtual. Yet, there is still room for experimental performance online, not less because the Internet has not settled on a mainstream format yet. Viewer participation is clearly no longer merely sequential where

¹⁶ See <http://netart-init.org>

interaction follows the action of watching. Residential broadband has made simultaneous but separate participation easier, and it is now often possible to interact online while watching an event on television, as in the case of ABC's use of enhanced TV which allows viewers to interact with mainstream TV, shows such as *Who Wants to Be a Millionaire* or Sunday Night Football on ESPN.¹⁷ Still, the next step is to merge both experiences into one, where we interact with what we watch on the same screen, or hear through the same device with which we access the Internet, as in the case of live Internet-only radio stations like BBC 6 Music.¹⁸ This is a model that live art on the Internet has contributed since it first appeared.

¹⁷ See <http://heavy.etv.go.com>

¹⁸ See <http://www.bbc.co.uk/6music> which was launched in March 2002.

Chapter 5

IT'S NOT AS EASY AS IT SEEMS

Any individual or organization webcasting any substantial amount of material over an extended period of time will tell you that two critical issues dominate their work. These two problems relate to preserving online works for long-term on-demand access and managing matters relating to copyright and royalties on the Internet. Franklin Furnace has experienced each of these critical aspects in its endeavors to present and preserve live art on the Internet since 1998. As we shall see in this chapter, all this points out how crucial it is for independent Web content producers to be aware of both preservation of their work for posterity and preservation of open channels through which to disseminate their work and ideas.

5.1 Archiving the Avant-Garde in a Digital Environment

Notwithstanding the infelicitous nature of many video-recordings and other attempts to record live action, performance documentation is important for artists seeking funding because the documentation is often all that can be viewed to adjudicate which artists should receive funding from grant foundations, arts councils and other such institutions. With live art on the Internet, it is possible to preserve the event itself (or at least segments of it) as documentation that can serve the same purpose of video-

recordings, photography and the other attempts at capturing the work to substantiate support for further work. Interestingly, digital preservation of live art on the Internet serves not only as documentation but also as an archive of works, somewhat similar to a specific collection at a museum.

Since the mid-1990s, Franklin Furnace has been choosing, cataloging, and digitally presenting material from its archives. Special emphasis has been placed on digital cataloging of existing or residual materials, both digital and analog, that remain from the works presented each season, rather than an active attempt to document the works presented by the organization. The initial drive for digital cataloging at Franklin Furnace was fueled mainly by the downsizing of office space and archive storage when the space at 112 Franklin Street was sold in 1997, and the organization moved to its present office setting at 45 John Street in New York's financial district. The office at John Street is fairly small compared to what Franklin Furnace had pre-1997, so the issue of storage makes digital cataloging pragmatic and not simply a move with the technological trends.

Michael Katchen, Franklin Furnace archivist since 1980, realizes that "although digitization is not the best method for preservation, it is the best method for making our archive available to the widest possible audience" (Katchen 1998). Through Katchen, Franklin Furnace has been cataloging every event and accompanying it with a single scanned image. The first goal is to have something to put on the

organization's website, and Katchen explains that "more elaborate scanning and digitizing can come later" (1998). That "later" depends more on funding for human resources and technical expenses rather than a desire, or even a recognition of need, for a more elaborate digital archive. Franklin Furnace has already been working on remedying this situation for a number of years.

In October 1997, Wilson and Katchen met Rick Rinehart Director of the Berkeley Art Museum, at the Museum Computer Conference in St. Louis, Missouri.¹ They agreed to join a collaborative project he had just started called Conceptual and Intermedia Arts Online, known as CIAO.² Rinehart has been attempting to raise funds to prepare a "testbed" of 1000 records per institutional member of CIAO to develop the electronic and cataloging standards that will be used internationally to document not only live art on the Internet, but also all sorts of other intermedia and ephemeral art from the second half of the twentieth century, such as installation works, artists' books, performance art, mail art, and new media art, including software, games, and web-based documentation of installation and performance works. Such works depends upon archival materials and documentation for their historical existence. Books about

¹ At that conference they also met Steve Deitz of the Walker Gallery, who is now Franklin Furnace's database consultant. The Walker Art Center is one of the world's foremost repositories of Net Art. See <http://www.walkerart.org>

or exhibitions of this type of art is impeded by the ephemeral, and often mixed-media, nature of such works. CIAO aims to create networked access to educational and scholarly material by developing a searchable knowledge-base dedicated to the collections and scholarship contributed by project partners.

The preservation of digital works is carried out through one, or a combination, of three approaches: static preservation, migration, and emulation.³ With static preservation all the original parts are preserved in their original form for as long as possible. While it was still in business, this is the sort of approach that Pseudo.com adopted. Works presented by Franklin Furnace in 1998 were still available “in their original form” in late 2000. This method of preservation offers authentic historical documentation of any webcast, but depends entirely on the longevity of the original files at their original location. Since digital information is altered only in subtle, often imperceptible ways through copying, static preservation is neither the only nor necessarily the best

² Other members of CIAO include: Anthology Film Archives, Berkley Art Museum/Pacific Film Archive, the Cleveland Performance Art Festival and Archive, Getty Research Institute, Solomon R. Guggenheim Museum, Sao Paulo’s Museu de Arte Contemporanea da USP in Brazil, National Gallery of Canada, School of the Art Institute of Chicago, London’s Tate Gallery, Rhizome.org, University of Iowa Alternative Traditions in Contemporary Arts, and the Walker Art Center.

³ I am following ideas proposed by Rick Rinehart in “The Straw that Broke the Museum's Back? Collecting and Preserving Digital Media Art Works for the Next Century,” *Switch* Volume 6 Number 1 (2000), The paper is available online through the CADRE Laboratory for New Media at San Jose State University at <http://switch.sjsu.edu/web/v6n1/articlea.htm>

solution for preserving webcasts. Some the webcasts from Pseudo's Performance Channel have been preserved by migration to the Walker Art Center's Web server.⁴

Migration is the process of copying digital files from outdated storage devices and software configurations to current equipment. An example of this is the transfer of material originally stored on floppy diskettes to compact disks, but it also refers to the transfer of files from one web server to another, particularly in the event of the closing down of the original server.

The other way of preserving digital works is through emulation. This involves the recreation of original works on scaleable computer systems in an attempt to keep the original work available for future audiences.⁵ Interestingly, a webcast is rarely, if ever, transmitted to more than one computer at exactly the same time in exactly the same way. In this regard webcasting is very different from the broadcasting of programs on radio and television. Technically speaking, the work is reproduced each time it is accessed, even during a "live" webcast. If this concept is taken through to other reproducible ephemeral arts, such as installations and performance art, the seemingly counterproductive concept of reproduction takes on new meaning. This approach

⁴ See Walker Art Center's Gallery 9 Digital Arts Study Collection online at <http://www.walkerart.org/gallery9/dasc>

⁵ This approach is advocated by Jeff Rothenberg in his January 1999 report for the Council on Library and Information Resources (CLIR) "Avoiding Technological Quicksand: Finding a Viable Technical Foundation for Digital Preservation," available online at <http://www.clir.org/pubs/reports/rothenberg/contents.html>

speaks to the unusual interest in reproducing performance art pieces just like plays are produced, or revived, in the theatre, several years after their original run. This methodology has been explored in various directions by the Guggenheim Museum's Viable Media Initiative, which has direct input from Franklin Furnace program coordinator Tiffany Ludwig and Martha Wilson, who serve among its consultants.⁶ Pieces that have been selected as case studies for this project include Robert Morris' performance *Site* (1964), Nam June Paik's video installation *TV Garden* (1974), and Jenny Holzer's electronic installation *Untitled [Selections from Truisms,..]* (1989). The Variable Media Initiative has outlined types of information that need to be gathered to enable this new means of collecting, including interviewing the artist and collecting all relevant documentation surrounding any particular work.

Rick Rinehart, CIAO's executive director, claims that "since access to collections promotes new scholarship and learning, and since conceptual art represents some of the most compelling and significant artistic creation of the modern era, it is eminently worthwhile to improve access to these under-utilized cultural resources."⁷ This question of access is imperative since most museums still do not provide easy public access to information about their collections except through specialized publications and occasional exhibitions and their catalogues. CIAO advocates the delivery of

⁶ The Guggenheim Museum's Variable Media Initiative is coordinated by Jon Ippolito, Assistant Curator of Media Arts, with John G. Hanhardt, Senior Curator of Film and Media Arts. Details available online at <http://www.guggenheim.org/variablemedia/>

existing information that museums have via the Web, and praises initiatives such as the San Francisco Fine Arts Museum's *thinker.org* project as a fine example of how this can be achieved. The key is to go beyond collection level catalogues to comprehensive databases of images, text, and other digital files.

CIAO is exploring a model which would provide the user with collection-level context as well as item-level detail, combining both by use of a standard for searching and viewing purposes. This standard is the Encoded Archival Description (EAD) used by many libraries, archives, and historical societies internationally, and approved by the Library of Congress and the Society of American Archivists. EAD is based on the XML (Extensible Markup Language), which has been approved by the WorldWide Web Consortium as a free, international standard and is becoming the basis for the delivery of structured text information on the Web.

In its attempt to consolidate its efforts, CIAO has affiliated with Independent Media Arts Preservation (IMAP) a service, education and advocacy consortium organized “to ensure the preservation of independent electronic media for cultural and educational use by future generations.”⁸ Franklin Furnace is particularly interested in this because it enables the creation of a long-term pedagogical resource. To this end, Franklin

⁷ See CIAO website at <http://www.bampfa.berkeley.edu/ciao>

Furnace is currently strategically seeking the appropriate educational institution to house its archive and the related continuing operations.

Franklin Furnace's collaboration with the Parsons School of Design's NetArt Initiative, was initiated in partial fulfillment of this objective. Designed to create and promote a dialogue between academics and artists to explore new media in contemporary art-making, the NetArt Initiative offers an open space for discussion and collaboration for students and the general public.⁹ Franklin Furnace uses this platform to present most of its current live art on the Internet program, but the NetArt Initiative is active in its own right, presenting public lectures and open discussions on a regular basis.

As I mentioned earlier, Franklin Furnace is also collaborating with The Studio for Digital Projects and Research of New York University on The Franklin Furnace Networked Digital Video Archive Prototype Project. This prototype project uses a selection of works not necessarily presented by Franklin Furnace but which Martha Wilson sees as important in the history of performance art video documentation to

⁸ IMAP recognizes that there are no firm boundaries between the many forms of independent media, and works closely with allies focused on the preservation of film, new media, performance, and interdisciplinary works. See IMAP website at <http://www.imappreserve.org/>

solve digitization, cataloguing, vocabulary, rights and marketing issues raised by CIAO's plan to make more video documentation available online. While the technical phase of this prototype project has been accomplished over a period of almost two years, the payment of royalties to copyright holders has stalled the marketing of this collection. The legal battles brought by the music industry against the likes of Napster and MP3.com, however, have given rights-holders a window of opportunity (or a second chance in some cases) to deliver their content to customers on the Internet with some revenue streams and the possibility of copyright protection in place.

Digital rights management (DRM) software enables secure distribution and promotion without compromising commercial trading of digital media content on the Internet. The DRM industry is driven by three distinct groups: (a) rights-holders including record labels, software publishers, print publishers (newspapers, books, and magazines), as well television and film executives; (b) distributors of content, including web portals, e-commerce sites, software platforms for distributing content, and Internet access providers; and (c) enablers of the legitimate marketplace for content including digital-rights management systems, watermarking technology, licensing systems, and payment services. The DRM industry seeks to increase the industry's understanding of the current technological solutions available in the market

⁹ Participants in the NetArt Initiative include, or have included, Circle.com; Franklin Furnace Archive, Inc.; the Lower Manhattan Cultural Council's digital arm, Thunder Gulch; Parsons School of Design, Digital Design Department; the School of Visual Arts; the Postmasters Gallery; and the Walker Art Center. See the NetArt Initiative website at <http://netart-init.org>

while distributors and rights-holders provide feedback to the technologist creating this software.

5.2 Peer-to-Peer Pressure

The Internet's content layer is a hotbed of proposed control. To get a broader picture of what is at stake, we need to look at the balance of control beyond the connectivity or transmission layer. I will do this by concentrating on two current quandaries on the content layer: the file sharing debacle, which has gained international notoriety through the Napster case, and the proposed Consumer Broadband and Digital Television Promotion Act. Each of these matters effect webcasting and live art on the Internet, even though they are more overtly designed to control the exchange-value of commercial intellectual property.

Peer-to-peer file sharing – also referred to as P2P – is a direct connection between two users' computers over the Internet. Using file-swapping software, users can share selected files on their computers with each other. To find a file, you use P2P software to search others' hard drives, make a direct connection to another user, and download the file from their machine. In essence, peer-to-peer networks provide a way to link PCs together without the need for one powerful central computer.¹⁰ The original

¹⁰ Interestingly, CIAO is also testing a centralized/decentralized model for delivery of collections information on the Web. In their model, encoded documents containing metadata about digital art files are sent to the central server at the Berkeley Art Museum, and then the museum staff make the documents available online through their search engine. The metadata files are stored on the central server to enable

version of Napster allowed users to search and find almost any type of digital file stored on computers hooked up to the Internet worldwide, provided they were also running the Napster software.

Napster has brought peer-to-peer file sharing to the attention of the general public. The term Napster has practically become a catch-all phrase for P2P, as Xerox is for photocopying, Hoover is for vacuum cleaners, and Kleenex for disposable tissue paper. Yet Napster was neither the first peer-to-peer file sharing application to be adopted by thousands of Internet users nor is it the most effective. Hotline Communications was founded in July 1997, giving Internet users software which enables them to offer files for download from their own computers. Based in Toronto, Hotline's original motto was, "There's more to the Internet than the Web," emphasizing the broader Internet network over the increasingly commercialized World Wide Web. Companies and educational institutions such as Avid Technology, Leicester University (U.K.), and The American Press Institute were among the better known Hotline users. Hotline Communications Ltd. went out of business in the fall of

searching across collections and institutions. The digital images and multimedia files are not stored on the central server, but are stored on servers at the location of the image owners. The remote files are linked from the central metadata documents via hyperlinks so that when end-users view these documents both text and images appear on the same page. This practice allows each institution to maintain maximum control over their material and simplifies version control and updating. CIAO is now also planning to decentralize the metadata files through distributed linking technologies as such as Z39.50 or XMLINK.

2001 after a long legal battle with original Hotline programmer/creator Adam Hinkley.¹¹

I downloaded the Hotline Client for Windows95 version 1.0 beta 7 in late 1998 after I heard writer Douglas Rushkoff rave about it during a lecture at NYU's Interactive Telecommunications Program. I was fascinated by the idea that I could turn my computer into a server and share files with others without an intermediary file repository. Still, I did not warm up to the interface and had few, if any, files I was interested in sharing. I never thought of Hotline as an entertainment application and looked towards Scour, an entertainment portal with multimedia search technology, founded in December 1997, as my only source for finding multimedia files on the Internet. More than a year later, on April 4, 2000, Scour announced the beta launch of Scour Exchange, its own file-sharing technology that lets people search for and trade video, picture, music and text files. On July 20, 2000, the motion picture and recording industries sued Scour, alleging copyright infringement, and on October 12 Scour filed for Chapter 11 bankruptcy protection. Scour's services, which included downloadable file-sharing software known as The Scour Exchange and a multimedia Web spidering search engine, remained available for about a month. Oregon-based company CenterSpan Communications purchased Scour and the Scour Exchange in

¹¹ Hinkley runs his own website at <http://hinks.hypermart.net> while the official Hotline website is at <http://www.hotlinesw.com> or <http://www.bigredh.com>

December of 2000 and relaunched Scour as an online source for music, movies and images that, by most standards, goes out of its way to respect copyright laws.

At about the same time I was uninstalling the Hotline Client from my home computer, thinking it to be an interesting but not particularly useful application, a freshman at Northeastern University was creating a new peer-to-peer file-sharing application and network. That freshman was Shawn Fanning, and the application was Napster. Five months later, in May 1999, Fanning founded Napster Inc. It was also at this time that Ian Clarke, a computer programmer from London studying at Edinburgh University in Scotland, completed his original plan for Freenet and made it available on the Internet. Clarke is one of the staunchest proponents of peer-to-peer networks' ability to break any shackles on the flow of information and telecommunications. He is convinced that Freenet can also serve as a catalyst for challenging outdated copyright laws and overturning media empires.

While Clarke does not present himself, or Freenet, as a lawbreaker, he insists that “you cannot guarantee freedom of speech and enforce copyright law”¹² and proposes that Freenet can rewire the Internet so it is never controlled by anyone other than all the users. In an online interview with CNET’s News.com, Clarke said he is hopeful that P2P will “accelerate the democratization of the media” and “break the kinds of

¹² This is one of the many points Clarke makes in “The Philosophy behind Freenet” available at <http://www.freenetproject.org/index.php?page=philosophy>

monopoly which exist in the media.”¹³ When the interviewer pointed out that it is difficult to know what information to trust when it does not come directly from a well-known source, Clarke argued that this is both necessary and advantageous, explaining that “people need to learn to question what they see and hear and read,” and information spread via P2P networks like Freenet “will make people realize that they have to judge information on its own merits.”

The Record Industry Association of America (RIAA) turned the offline world’s attention to P2P when it sued Napster for copyright infringement on December 7, 1999. The RIAA is a trade group based in Washington D.C. representing the creators, manufacturers and distributors of about 90 percent of all sound recordings sold in the United States; an industry worth \$15 billion in 2001.¹⁴ RIAA President and CEO, Hilary Rosen, has years of experience as a lobbyist on Capitol Hill. Rosen and the RIAA have long known about the nuances of the online delivery of digital audio recordings, as can be seen from the passage of the Digital Performance Rights Act of 1995, and the U.S. ratification of the World Intellectual Property Organization (WIPO) treaties benefiting American creators by requiring nations around the world to strengthen their copyright laws, as well as adoption of the Digital Millennium Copyright Act that updated copyright standards for the digital age. She certainly has a

¹³ Full interview available at <http://news.cnet.com/news/0-1005-201-3248711-1.html>

¹⁴ Most of the information about the RIAA is based on material from their website at <http://www.riaa.org> where further details about the recording industry are available and updated on a regular basis.

good understanding of the real character of the Internet, referring to the early years of digital music online as

the test case for whether the Internet could represent the de-institutionalization of America, that sort of sense of power to the people...the Internet is going to mean we don't need rules, we don't need [controlled] distribution, we don't need The Man, whoever The Man was. And music was sort of the first thing that gave people a taste of, 'Well does this work? Can we really get away without The Man?'" (Rosen, cited in Harding 1999: 21).

Since Rosen is fully aware that questions about whether the Internet can reduce, if not eliminate, the need for an intermediary, the RIAA has lobbied Congress to convince it that it is able to perform the duties of an objective agent for copyright holders as with the American Society of Composers, Authors, and Publishers (ASCAP) and BMI are for established channels of mechanical reproduction of pre-recorded material, or as the UK-based Performing Rights Society is for much of the rest of the world.¹⁵ In November 2000, the RIAA created an agency called SoundExchange – comprised of over 280 record companies and their 2,100 labels affiliated with the RIAA – to act as the licensing agent of music over digital channels of distribution.

In 2001, the U.S. Copyright Office considered a rate structure proposed by the RIAA based on the organization's claim that it represents members of the industry who "own

¹⁵ ASCAP is a major performing rights society in the United States active since 1914. Information about the current operations of ASCAP are available at <http://www.ascap.com> while other information about the largest performing rights societies in the world are available at <http://www.prs.co.uk> for the Performing Rights Society (PRS) based in the United Kingdom, also founded in 1914, and Broadcast Music, Inc. (BMI), founded in 1940, available at <http://www.bmi.com>

copyrights in approximately 90 percent of the legitimate sound recordings sold in the United States.” The recommendations came from the Copyright Arbitration Royalties Panel (CARP), whose task it was to set the royalty rate and the reporting methods for webcasters. That panel concluded in February 2002 that webcasters should pay 0.14 cents per listener, per song, going forward as well as retroactively to 1998, in function of the Digital Millennium Copyright Act. Over-the-air stations that simply put their broadcasts online were asked to pay 0.07 cents per song per person, and 0.02 cents for noncommercial simulcasters. The Copyright Office rejected the CARP recommendation. In June, however, Librarian of Congress James Billington, responsible for the U.S. Copyright Office, ruled that all webcasters should pay a royalty rate of .07 cents per-song, per-listener. Those royalty fees would have quickly bankrupted many existing independent webcasters. According to calculations by SaveInternetRadio.org, a website organized by small webcasters around a “Save Internet Radio” campaign, a webcaster operating regularly for a period of three years to an average of 1,000 listeners that would owe \$525,600, a sum that would supposedly be split equally between record labels and recording artists.

Congress subsequently proposed a new law as a compromise between small webcasters and the recording industry. The new bill, dubbed “The Internet Radio Fairness Act,” made provisions for small webcasters to pay a fixed percentage of either their revenues or their expenses in lieu of the per-song rate, and from royalties any business that makes less than \$6 million in annual revenue. President George W.

Bush signed the Net Radio Act on December 4, 2002. This law resolves the dispute over how much money webcasters should pay for the privilege of relaying copyrighted music. No specific royalty rates are enforced by the new law, which authorizes SoundExchange to negotiate binding royalty contracts with all webcasters on behalf of all artists and record labels it represents. However, the law includes a six-month stay of royalty payments for noncommercial webcasters. This provision was argued by conservative Senator Jesse Helms over concern that it could have harmed some religious webcasters.

As can be expected, there has been opposition for the idea that the RIAA should collect royalties on behalf of artists from the moment the first proposal reached the attention of artists' rights organizations. One of the most vocal organizations opposing the RIAA's claim to administer royalty fees from compulsory license fees from online use of artists already under contract with record companies is called the Future of Music Coalition (FMC). The FMC's point is that the RIAA has a conflict of interest because while it claims to guard the rights of the musicians, it is funded by, and represents, the major record companies, traditionally recognized as exploiters of artists worldwide.¹⁶ By standing in opposition to the RIAA, the FMC hopes to give a voice to

¹⁶ In March 2002, MTV announced that British rock group Led Zeppelin were suing their record label Atlantic Records claiming they have only been paid one-fourth of the royalties owed to them for forty-two of their most famous songs. In January 2003, Bob Marley's former bassist, Aston Barrett, sued the band's record company, Universal/Island, over lost royalties, claiming he hadn't received any money since the mid-1990s, despite performing on and co-producing eleven albums with Bob Marley. In 1999, rock 'n roll pioneer Buddy Holly's widow and several relatives sued MCA

the concerns of musicians who are not represented by an organization whose core mission is clearly the promotion and protection of the commercial recording industry and not the handling of revenues from channels of distribution or reproduction.

Until the Napster debacle, the P2P industry was a consumer-led industry, but other business models have slowly evolved. On June 11, 2001, industry newspaper *Interactive Week* ran a cover story under the heading “Anarchy for Sale: Why Microsoft and Intel will spend billions to tame peer-to-peer.” The article goes on to explain how various established Information Technology companies use peer-to-peer applications and shows how four distinct models have emerged: content distribution, collaboration, business process automation, and distributed search. Microsoft integrated P2P networking into Windows XP – the operating system introduced in the fall of 2001 – but the first two models described in *Interactive Week* are perhaps better known and thus it is not surprising that they are the ones which are being discussed and developed further by various companies. By the end of 2001, some P2P file sharing companies, including Napster, were working directly with content owners to present what they call a “legitimate” business. However, it seems that too many Internet users prefer the free-for-all format still favored by P2P application distributed over the Gnutella network, like Kazaa and LimeWire. Ironically, the first Gnutella file-swapping program was developed by AOL's Nullsoft division in March 2000, and

Records, accusing the company of hoarding royalty payments and illegally producing albums without their approval. For more such stories see books like *Beyond the Charts* by Bruce Haring (Los Angeles: OTC Press, 2000), or simply follow news about popular music on a regular basis.

released in the public domain. In an attempt to safeguard its many interests, AOL shut down the Gnutella project on April 10.

Gnutella now has a life of its own. Like the Internet itself, no single organization owns Gnutella or has control over it. Due to its open technical structure, no single company or entity can make all of the Gnutella software stop working. Unlike the Napster network, the Gnutella network is powered solely by regular Internet users and online content creators and not by corporate servers and commercial interests. Any outages on websites which offer software to access the Gnutella P2P network cannot stop activity between the various Internet users who seek to connect their computers with each other.

A number of companies have written software that uses the Gnutella protocol. The first file searching website to offer a peer-to-peer enabling application based on Gnutella was MusicCity.com. In development since mid-2000, MusicCity.com's software first appeared in public on April 21, 2001, under the name Morpheus. During the year after Napster was shut-down due to its legal problems with the RIAA, Morpheus was the most popular online file-sharing application averaging about 1 million downloads per week from download.com.¹⁷ By the end of 2001, more than

¹⁷ Morpheus was the top download on the Internet during 2001 according to download.com, and the word Morpheus is one of the most searched for keywords on major search engines like Google and Lycos.

600,000 people were accessing the MusicCity network simultaneously and more than 70 million files were being shared by users.

StreamCast Networks which runs MusicCity.com has always made it clear that it does not take copyright infringement lightly, however, the openness of the network surrenders any responsibility of copyright violation over to the users because peer-to-peer technology lends itself to a situation where copyrighted material may be shared without compensation to the copyright holder. The documents, music, video, or other software files that are located through a search via Morpheus are not stored on MusicCity servers because the company does not, and cannot, control what content is available to users through the public network. The users of the network control what is available and what is not. By downloading the Morpheus software and installing it to their computers, users agree not to infringe the intellectual property rights of others and are notified that MusicCity.com will respond to claims of copyright infringement that may be committed, in accordance with the Digital Millennium Copyright Act of 1998.

5.3 Whose Rights?

While the “theft” of music files through the Internet without direct remuneration to the artists is foremost among the topics discussed in relation to copyright in the digital age, issues of copying have been in circulation in the world of art making for many centuries. Ever since Marcel Duchamp introduced the idea of ready-mades, almost a

hundred years ago, appropriation of other people's work as one's own has become a matter of concern among artists and art lovers like never before. Franklin Furnace's second season at Pseudo.com, opened with a piece by Rae C. Wright called *Arthieves*, webcast on Friday, September 25, 1998.¹⁸ Wright's work is a spoof on the notion of originality in Western art and entertains the idea that all art is really about stealing from life and nature, as well as from other artists. Her aesthetics are totally in line with twentieth-century ideas of appropriation and contextualization as practiced by the Dadaists and the Conceptualists, but there are strong undertones of the ease digital media bring to the idea. *Arthieves*, however, was not the first piece of live art on the Internet presented by Franklin Furnace that raised interesting questions about copyright, intellectual property and the payment of royalties to legitimate rights holders. The first occasion came through a piece by Brazilian dancer/choreographer Patricia Hoffbauer entitled *Linda Rivera and Guests*. Hoffbauer's work deals with issues of cultural identity, hybridity and displacement, and was presented as a live webcast on Friday, March 6, 1998. Her webcast, explored cultural stereotypes such as the "slick Latina talk show hostess," the "noble serape-clad peasant," and Carmen Miranda, who gained international fame through her appearances in Hollywood movies from the 1940s with her trademark fruit hat and wide, toothy grin. The knotty ingredient consisted of a number of short clips from copyrighted videotapes of old movies featuring Carmen Miranda.

¹⁸ *Arthieves* was presented again at an event called *Digital H@ppy Hour* at the Kitchen in New York, on Wednesday, January 31, 2001.

When I recently asked Martha Wilson whether there was any other work that Franklin Furnace had presented over the years that raised similar questions, she explained that although there were other works that appropriated images and/or other works created or belonging to someone else, Patricia Hoffbauer's webcast was the first time the organization started discussing copyright and other such matters as they relate to presenting new work.¹⁹ It appears that the Internet brought an awareness that the appropriated work – in Hoffbauer's case, film clips featuring Carmen Miranda – was being made available to an audience that was much larger than any that had ever visited 112 Franklin Street. The unofficial final word came from the technical staff at Pseudo.com who had no objection of webcasting this copyrighted material, and explained that they could easily remove it from the server if the copyright owners objected. No rights or royalties were ever paid.

There are thousands of webcasters on the Internet. The audio and video material available online through these independent channels is very diverse, and contrasts greatly with mainstream radio broadcasting. Many webcasters play copyrighted music, which usually gathers royalties when played on legitimate radio stations that are licensed to broadcast in most parts of the world. Small royalties are paid to songwriters and music publishers regularly, and these add up to millions of dollars annually. It is no wonder that the Recording Industry Association of America, and its

¹⁹ From a private conversation on Tuesday, November 7, 2002.

industry allies, have attempted to get the U.S. government to legislate the payment of royalties by webcasters. Their argument is that independent webcasters do not pay any royalties on when they play copyrighted music over the Internet.

The Consumer Broadband and Digital Television Promotion Act (CBDTPA) proposed in March 2002 by U.S. Senate Commerce Chairman Ernest "Fritz" Hollings in the House of Representatives, is a bill proposed "to regulate interstate commerce in certain devices by providing for private sector development of technological protection measures to be implemented and enforced by Federal regulations to protect digital content and promote broadband as well as the transition to digital television, and other purposes."²⁰ Essentially, it is meant to protect copyrighted digital products from illegal copying and distribution to foster commercial growth. Instigated by Disney's CEO Michael Eisner, this bill has been lobbied by the Recording Industry and the Motion Picture Associations of America who are keen to see the introduction of a law which prohibits the sale or distribution of practically any technology which does not feature copy-protection standards enforced by the government. Pro-consumer groups and computer makers have expressed their opposition to the bill. And Senator Patrick Leahy of Vermont, who at the time chaired the Senate Judiciary Committee,

²⁰ For comments on the CBDTPA, including statements and press releases by the Home Recording Rights Coalition, the RIAA and the MPAA, and other technology lobby groups, along with a copy of the proposed bill, see Declan McCullagh's website at <http://www.politechbot.com/docs/cbdtpa>

which has jurisdiction over the bill, immediately announced that he intended to filibuster Hollings' proposal in the House.

The justification for governmental regulation is reduced by the fact that digital technology enables production and distribution of ideas which are not diminished by reproduction. Protection for an original idea in copyright regulations is understandable, because it creates an incentive for artists to produce, but their work is eventually moved to the public domain. Thus any bill which seeks to enforce embedded copyright regulation on a product(ion) in perpetuity works against the way copyright legislation operates. “The digital world is closer to the world of ideas than to the world of things” (Lessig, 2001: 116). Copyright gives its holder the right to control the copying of their work, specifically that to which the right extends. However, it should be made clear that copyright does not give its holder absolute control over their work. Limited copying of copyrighted works is one of the exemptions allowed by copyright law, and the public can use that work within the consideration of “fair use” regardless of the wishes of the rights owner. Another important point to keep in mind when speaking about intellectual property rights is that after a limited time the work falls in the public domain and anyone can do whatever they please with it. The number of years any work is protected by copyright is determined by law, however, over the past thirty years or so, the term has been extended incrementally from about twenty years to seventy years after the creator’s death. This fact has attracted wide attention most recently through the 1998 Sonny Bono Copyright Term Extension Act, which

has protected Disney's Mickey Mouse, among many other famous copyrighted materials, from falling into the public domain.²¹

Intellectual property and the Internet have been at odds ever since the first copyrighted images started appearing on personal websites around 1995. Although users have clearly demonstrated their desire to consume digital media content, rights-holders have been placed in a difficult position of either allowing their content to be used widely on the Internet without compensation or fighting an endless battle to keep their content off the Net. In many cases, this has involved brand-owners taking legal action against their most ardent fans.

One such case is that of French artist "Mouchette" who started a residence with Franklin Furnace in early 2003, culminating in a live webcast in April. The website Mouchette.org is a contemporary French art project created by an artist masquerading as a young girl called Mouchette, like the main character in a Robert Bresson film from 1967 by the same name, created by novelist Georges Bernanos. The website appropriates images from the film as an "artistic homage" to Bresson. The anonymous artist behind the website Mouchette.com claims that the piece is an homage to the character in Bresson's film. The website can be categorized as fan fiction, a popular narrative genre among many fans of popular television shows and movies.

²¹ This extension was upheld by the U.S. Supreme Court on Wednesday, January 15, 2003. See New York Times Op-ed commentary by Lawrence Lessig (January 18, 2003), available online at <http://www.nytimes.com/2003/01/18/opinion/18LESS.html>

On July 23, 2002, the French Society of Authors' Rights (SACD) following a request from Robert Bresson's widow, to censure Mouchette.org, formally demanding the removal of any direct reference to the Bresson film by September 9. The specific part of the website that caused the legal action consists of an online quiz comparing the girl Mouchette from the film and the girl Mouchette from the website.²² In a press release issued by Franklin Furnace on October 23, 2002, Mouchette, the Web artist, claims that “this interdiction unfortunately censors a work which is an homage celebrating the source of its inspiration.” Sadly the line between homage and breach of copyright is often tough to judge. An interesting twist in Mouchette dispute, however, is that several websites now present copies of the online quiz “in protest” of Bresson’s widow asking for it to be removed from Mouchette.org.²³ This incident raised a public debate on copyright laws and the Internet in Marseille at La Compagnie on November 2, 2002, featuring various French lawyers, activist artists, and a spokesperson for Mouchette.org.

²² A copy of the official letter from SACD can be seen at <http://www.mouchette.org/film/sacd.html>

²³ The quiz files that have been removed from the Mouchette.org website are available at <http://www.constantvzw.com/copy.cult/mouchette/> where Internet users are also encouraged to download the files and include them on their personal Web space. Details about the activities in support of Mouchette.org, including links to several mirror sites, are available at <http://drivedrive.com/mouchette/censored.html>

In light of the P2P controversy, which started with the infamous Napster case, it may seem that copyright is now threatened more than it ever was before the popularization of the Internet. Contrary to this view, Lessig argues that we are entering “a time when copyright is more effectively protected than at any time since Gutenberg,” (1999: 127) because the technology which allows rampant copying of digital files can be re-coded to regulate access to and use of copyrighted material to near-perfection. In *Code*, Lessig explains in great detail how “cyberspace is about to give holders of copyrighted property the biggest gift of protection they have ever known” (127). In his view, code is the primary control factor in online communication and therefore it “can, and increasingly will, displace law as the primary defense of intellectual property in cyberspace” (126). This claim is backed up by the work of Xerox PARC researcher Mark Stefik, His concept of “trusted systems” which revolves around a network which can regulate whether you can read a file once or multiple times regardless of whether its contents are audio, video or text, whether you only access its contents without the possibility to copy them or distribute them over a computer network, and completely regulate its use in another work. Additionally, Stefik’s “trusted system” allows owners of copyrighted materials to sell access to those materials on the terms they want and enables them to enforce individual contracts related to their intellectual property rights.²⁴ As Lessig sees it, the future problem “will center not on copy-right but copy-

²⁴ Stefik’s views on the social, technical, and legal challenges of the Internet and the use of what he calls “trusted systems” are presented in his book *The Internet Edge* (Cambridge, MA: MIT Press, 1999) where he elaborates on how he believes that the current trends in technology will make the Net very different from the computer based Web surfing experience we’re familiar with now. For his earlier writings on trusted

duty – the duty of owners of protected property to make that property accessible” (127). He asks a series of questions intended to raise the required red flags around the implications and consequences created by such a system of control.

What happens when Mark Stefik’s vision is realized, and when what the law protects as intellectual property can be protected through code? Should we expect that any of the limits will remain? Should we expect code to mirror the limits that the law imposes? Fair use? Limited term? Would private code build these “bugs” into its protections? (Lessig, 1999: 135)

On June 3, 2002, at a hearing in the case against Morpheus over file-sharing software, the court declared in favor of the defense. The argument asked for the case to be related to the legal understanding of the Supreme Court's ruling on *Universal City Studios v. Sony* regarding the use of VCRs. The court accepted that P2P technology is capable of “substantial non-infringing uses” which protect consumers’ rights to use video recordings as they choose, as long as they don’t explicitly infringe copyright.

Even if a law court can determine that there is fair use in a current system which includes P2P file sharing, in practical terms the current system is regulated by the fact that it is too expensive to meter individual use. Lessig contends that a “trusted system” like Stefik’s “forces us to recognize the change in the context within which fair use functions” (136). In looking at what copyright law and the right to privacy (as expressed in the fourth amendment of the U.S. Constitution) protect, Lessig

systems, see Stefik’s articles “Trusted Systems” in *Scientific American* (March 1997) 78-81, and “Shifting the Possible: How Trusted Systems and Digital Property Rights Challenge Us to Rethink Digital Publishing” in *Berkeley Technology Law Journal* (Volume 12, Issue 1) 137-59.

demonstrates that, “[c]hanging contexts sometimes reveals an ambiguity latent in the original context” (1999: 118). And so, simply extending existing laws to cover new technologies is often problematic because different technologies are different languages which need to be “translated” with the aim of finding a reading that preserves the spirit of the law from one technology to another. We must choose between “try[ing] to make cyberspace the same as real space, investing in it with the same values, or [giving] cyberspace values and properties that are fundamentally different” (Lessig, 1999: 84). To find the equilibrium of control which Lessig urges in defense of the openness of the Web, the right balance must be struck between constraining the Internet to existing rules and the creation of new laws.²⁵ With respect to intellectual property, he argues against a code that tracks use “in favor of code that guarantees a large space for an intellectual commons” (186), possible through a balance between legislation and individual control. Lessig is not alone in this discernment on the required regulation. Shapiro recognizes that the control revolution is built on a delicate balance too.

In trying to figure out what rules should apply to computer networks such as the Internet, lawmakers and policy analysts want to know: What’s the right metaphor? Is content on the Internet like printed material, which is generally immune from government regulation? Or is the Internet more similar to radio or television, which traditionally have been regulated because channels of communication are scarce and expensive? Or is it most like telephones and the mail, to which the rules of common carriage have been applied, ensuring low-cost, universal service? (1999: 169)

²⁵ The Harvard Journal of Law and Technology is an exceptional resources for the latest academic discussions on all aspects of the way legal matters relate to the Internet. It is available online at <http://jolt.law.harvard.edu>

The Internet uses text in a very pervasive manner, and it can sound like radio and look like TV, but its content is all data which is generally pulled to personal computers and other personal devices. “The problem with simply comparing the Net to other communications media is that it fails to take into account the new context that this technology is fostering” (Shapiro, 169). The search for the right metaphor shows the need for a serious reconfiguration of existing laws and regulations before they are applied to the Internet. Metaphors should not be mistaken for similes. The Internet can be compared to practically anything, but in reality it is only like the Internet.

The Internet is unlike any of the other media because of the ease of access to both the means of production and the means of distribution or transmission. The issues of access and control I am raising here are very important because alterations in the access and control structure of the online network may lead to a rupture in what has been possible for the past ten years or so. What we have enjoyed so far may no longer be possible by the end of the first decade of the twenty-first century. The issues are complex. The details change every month. Meanwhile, studies such as this can raise awareness about what is in the balance, through the creation of documentation on some of the current endeavors by independent Web content producers to disseminate their work and ideas, as well as their means of production and distribution.

Chapter 6

KEEPING THE WEB AS AN OPEN MEDIUM

Before the end of 2002, a segment of the online art community experienced first hand how corporate and commercial interests control the Internet. The incident involves an unprecedented move against free speech as exercised through an online organization called The Thing.¹ Besides offering a series of discussion boards for a vibrant Web community interested in the production and presentation of Internet specific art since 1991, The Thing is also a primary Internet access and Web hosting provider for artist and activists operating from New York. The organization was one of the foremost participants in Franklin Furnace's final gallery exhibition at 112 Franklin Street, *In The Flow: Alternate Authoring Strategies*.² Several artists who have either presented their work through Franklin Furnace or worked closely with the organization over the past few years are Thing.net clients; including Coco Fusco, Lynn Book, Ricardo Dominguez, Diane Ludin, and G.H. Hovagimyan.

¹ The Thing is also known as Thing.net, on account of its web address at <http://www.thing.net> and its international network, with hubs in Amsterdam, Berlin, Frankfurt, Rome and Vienna.

² See the exhibition's online catalog, which was Franklin Furnace's first website presentation at <http://www.franklinfurnace.org/flow> when it first inaugurated its Web presence in 1997.

On Wednesday, December 4, 2002, The Thing was abruptly disconnected from its bandwidth provider NTT/Verio, after The Dow Chemical Company claimed that The Yes Men, a project involving a collective of self-proclaimed pranksters supported by RTMark.com (one of The Thing's clients), defamed them and infringed on their trademark, through a website at www.dow-chemical.com, which featured a parody of the corporation's real site at www.dow.com.³ After a sixteen hour black-out, NTT/Verio reconnected The Thing for the duration of the rest of its service contract, but refused to renew the contract after it ran out in March 2003. Citing the Digital Millennium Copyright Act complaint they received from Dow Chemical, the bandwidth provider claimed that The Thing had breached the "acceptable use" clause more than once.⁴ It is quite clear to anyone familiar with the Digital Millennium Copyright Act that NTT/Verio reacted this way to avoid being held liable by the Dow Chemical Company claiming trademark infringement. By March 2003, The Thing was facing a total failure of its infrastructure, because while replacing the bandwidth

³ Through a technical error on the part of The Yes Men, The Dow Chemical corporation has acquired ownership of the offending domain name, but a large number of websites now mirror the content of the original website, in support of The Yes Men. Mirror sites include <http://www.dowethics.com>, <http://www.mad-dow-disease.com> and <http://www.dowinfo.com>, while an updated list of links appears on The Yes Men's website at <http://www.theyesmen.org/dow/> along with other related information about this case.

⁴ Another infamous incident involved Thing.net client Electronic Disturbance Theater, who organized an online protest against e-Toys.com by overloading the retailer's site with traffic during the 1999 holiday season, in retaliation for their dispute over ownership of [etoys.com](http://www.etoys.com) with Slovenian artist/activist community Etoy. See also <http://www.etoys.com> and <http://www.rtmak.com/etoysitin.html>

provider is not a huge problem, keeping the organization financially stable depends on whether non-artist/activist clients will abandon it.

This incident has made it clear to Franklin Furnace and individual artists in and around the New York Internet art community that there is another “digital divide” besides the one between the prosperous and the deprived. This other divide may become permanent if large commercial media corporations get to control the Internet the way governments and big business interests did with radio in the 1920s. Keeping the Internet as an open medium where virtually anyone can have Web presence is as significant a political stance as narrowing the divide between the haves and the have-nots. In this concluding chapter I will argue that the Internet is not necessarily an open medium in perpetuity. Its control is increasingly passing to governments and mega-corporations. “How much control should we allow over information, and by whom should this control be exercised?” (Lessig 1999: 186). This question, asked by Lawrence Lessig, guides my realization that some control *is* necessary.

The Electronic Frontier Foundation is the leading civil liberties organization working to protect rights in the digital world since 1990. They believe that the Internet should not be controlled by any government but be allowed to regulate itself. While most democratic governments have not yet made serious attempts to control the Internet, they will eventually try to govern the Internet, or many aspects of it, because online activities cannot be totally removed from offline matters. The lobby of the recording

and motion picture industry for legislation to regulate peer-to-peer file sharing applications and distribution of copyrighted material, which I discussed in the Chapter 5, is merely the first large-scale predicament to come to the attention of the general public.

The 9/11 terrorist attacks have also shown other aspects of the online world fusing with offline concerns. On October 10, 2001, U.S. National Security Adviser Condoleezza Rice warned ABC, CBS, CNN, FOX and NBC that their television networks could become propaganda pawns or even the tools of terrorists. Three days later, two cable television news channels, Fox News and MSNBC, refused to show a tape from Osama bin Laden in its entirety. This move drove many people to the Internet to see what bin Laden had to say. Indeed after some searching one could see the video in its entirety at CNN.com. This in itself is not such a remarkable thing were it not for a move by the Chinese government the following week. On October 16, China partially lifted Internet blocks on foreign news organizations, including Reuters, CNN, NBC, and the BBC. This decision coincided with a high-profile forum on Asia-Pacific Economic Cooperation and China's final preparations to join the World Trade Organization after fifteen years of negotiations.⁵ However, on Monday October 22, the day after President Bush ended an official visit to China, the blocks were re-imposed. By strictly limiting the number of gateways to the World Wide Web, the Chinese

⁵ See the CNN.com report on this event and the surrounding circumstances at <http://www.cnn.com/2001/BUSINESS/asia/10/17/china.web/index.html>

government has found it relatively easy to apply blocks on access to the Internet. The irony in all this is that unless the Internet is blocking totally, people in China can still view “forbidden” news services via proxy servers. This may be a symbolic action on the part of the Chinese government, as China is the country with the second largest number of home Internet users in the world after the United States.⁶

A libertarian ideology prevails on the Internet. Libertarianism embraces both individual freedom and free markets where big business runs the show without friction. It would appear that no state system or “government” is needed in a space without obvious borders. At the same time, absolute control is also possible if the required technology is legalized. The promise of absolute individual liberty is somewhat shortsighted since governments, corporations and commercial interest already seek, and will continue to seek, to exploit this space for their own ends. In a recent interview with CNET’s News.com, Electronic Frontier Foundation co-founder John Perry Barlow expressed a serious concern about Microsoft and AOL Time Warner seizing control of online commerce and media access. Barlow claims that “private totalitarianism is not out of the question because of the increasingly thickening matrix of channels of communication owned by the same companies that

⁶ According to a Reuters’ report published on April 22, 2002, China has 56.6 million people with residential (mostly narrow-band) access to the Internet, and the United States has 166 million people with Internet connections at home. Japan has 51.3 million. Although China’s number of home users is impressive in raw form, it represents just a small proportion of the country’s 1.3 billion population, or roughly 5.5%.

own content, that own Web properties, that own traditional media...The possibility of getting a dissident voice through their channels is increasingly scarce, and the use of copyright as a means of suppressing freedom of expression is becoming more and more fashionable.”⁷ Luckily, the two mega-corporations are trying to make it hard for each other to grab the whole pie. Still, the matter does not end here, and there is much at stake at present as the big corporations continue to dominate more and more of the Internet, regardless of whether this is happening by design or by accident.

6.1 THE REAL DIGITAL DIVIDE

While I recognize that there is a phenomenon of restricted access commonly referred to as *the digital divide*, my main concern in this dissertation is with access for Web content producers in relatively affluent societies rather than general access to the Internet as a telecommunication medium.⁸ Much has been said and written, and continues to be said and written, about the digital divide.⁹ Without dwelling too much

⁷ The interview with John Perry Barlow was published by CNET on February 22, 2002, at <http://news.com.com/2008-1082-843349.html>

⁸ More than 80% of people in the world have never even heard a telephone dial tone, let alone accessed the Internet, according to a BBC News broadcast heard on October 14, 1999.

⁹ Among the books about the digital divide see Ebo, Bosah L., ed., *Cyberghetto or Cybertopia?: Race, Class, and Gender on the Internet*. (Westport, CT: Praeger, 1998), and Compaine, Benjamin M. ed., *The Digital Divide: Facing a Crisis or Creating a Myth?* (Cambridge, MA: MIT Press, 2001). The latter collection of essays is most remarkable for the contributors who consider the digital divide an over-hyped non-issue. The Digital Divide Network (DDN) is a good online resource offering access to various resources about related issues, including literacy, economic development, and international issues A not-for-profit initiative of the Benton Foundation which focuses on the benefits made possible by the public interest use of communications, the DDN is available online at <http://www.digitaldividenetwork.org>

on the subject, I'd like to draw attention to a particular book, written as the Web started to penetrate prosperous households, because it highlights a point which is quite pertinent to my argument. William Wresch's *Disconnected: Haves and Have-Nots in the Information Age* (New Brunswick, NJ: Rutgers University Press, 1996) focuses mainly on Internet and media access in Africa, mainly from his own experience teaching computer science as a Fulbright scholar at the University of Namibia. Wresch's is an optimistic view on how the information-rich can and should help the information-poor get access to the flow of information, recognizing a very important fact: even the technology-rich do not always get access to the information they truly want and need. I will get back to this point in a moment because it is congruent with my central line of reasoning.

In New York City, where I have lived since 1996, the Internet is an integral part of everyday life. From advertisement billboards to public gathering places the Internet surrounds even those who are not interested in it. By contrast, the first Internet café for New York City's borough of The Bronx appeared in January 2001, more than 5 years after such places first opened in Manhattan.¹⁰ This is the sort of thing many people think about when they hear the words *digital divide*. Yet, one should also note that there is also no Starbucks coffeehouse in this same area of The Bronx, which like

¹⁰ CyberCasa is located at 1217 Stratford Ave., just off Westchester Avenue in the Soundview section. The facility was created by not-for-profit group Soundview Community in Action with the support of New York State Assemblyman Ruben Diaz, Jr.

many other inner-city neighborhoods is weighed down by poverty, crime, and high unemployment. Perhaps the absence of Starbucks is a blessing rather than a curse, and it is undoubtedly ridiculous to even think that there's a Starbucks divide, but this reminds me of an important statement made by the current FCC chairman, William Powell, son of a native son of The Bronx, Secretary of State Colin Powell. The statement I'm referring to is from Powell's first press conference as FCC chairman when he was asked whether the agency had a role to play in closing the digital divide. While saying that he believed the Commission should do what it could to "eliminate barriers in every segment of the population and its geography," he argued that "digital divide" was a dangerous phrase because it could be used to justify government entitlement programs that guaranteed poor people cheaper access to new technology like digital television sets or computers. "I think there is a Mercedes divide," he added. "I'd like to have one; I can't afford one. I'm not meaning to be completely flip about this. I think it's an important social issue. But it shouldn't be used to justify the notion of essentially the socialization of the deployment of the infrastructure."¹¹ Naturally this raised criticism from consumer groups and others who hold the opposite view.

It is hard to argue against the fact that there was a severe digital divide in the 1990s along economic, ethnic, racial, and education lines. While many believe that this is a huge complex issue, which needs to be tackled on a global level, by 2000 there were

¹¹ From a report by Stephen Labaton, "New F.C.C. Chief Would Curb Agency Reach" available online at <http://www.nytimes.com/2001/02/07/technology/07FCC.html> (February 7, 2001).

signs that some of the gaps were closing, sometimes with, and other times without, public policy initiatives. Access to the Internet is available to practically anyone at public libraries in many countries. At most public libraries I have been to, both in several states across the United States and a few countries in Europe, Internet use is limited to one hour at a time to allow access to as many people as possible, but there is no charge to use the facilities. This is a step in the right direction to make the Net widely available. In my frequent visits to my neighborhood public library I have seen people working on resumes, others conversing in chat rooms, and once I even saw someone buying books online. Providing free access to the Internet in public libraries is merely one example of concrete ways that attempt to bridge the digital divide.

Another attempt at bridging the digital divide, which I admire greatly, is that of Dewayne Hendricks a radio amateur who, besides forming part of a team which introduced the Internet to Mongolia, explores ways to exploit unused parts of the radio spectrum to serve as an open channel for high-speed Internet access.¹² He first demonstrated how this could be done in the Kingdom of Tonga where he used the radio spectrum to provide high-speed Internet access for this South Pacific archipelago with a population of about 11,000. Such an exercise was possible in Tonga because that country is a monarchy in the true sense and does not have any communication

¹² Hendricks is now CEO of the Dandin Group Inc. a small enterprise company dedicated to the propagation of broadband wireless technology and high-level Internet access. Dandin's website is at <http://www.dandin.com> and includes recent texts a video document from talks and presentations by Hendricks.

regulations controlled by a committee constraining the radio spectrum over its geographic precincts. He is now working on a program to give Native Americans in eight different tribal lands wireless Internet access. As sovereign nations they are free to regulate the radio spectrum in their zones as they please, provided it does not interfere with other signals carried on the spectrum used by the United States.

The beauty of Henricks' system is that it does not interfere with the way the radio spectrum is used within the United States and so these Native American tribes can enjoy high-quality Internet access on their lands at a fraction of the costs it takes to wire such areas for cable broadband. Besides Internet access in the sense of hooking up a personal computer to the Net, Hendricks' system provides a low cost solution for basic telephone services through a technology known as Voice Over Internet Protocol (VoIP). Another interesting aspect of using the radio spectrum for wireless Internet access is that unlike most residential broadband connections installed over the last couple of years, these wireless connections offer symmetric bandwidth, which make it possible to have as much bandwidth for uploading as you have for downloading. This is a truly remarkable facility in viewing the Internet as a two-way medium where anyone can have equal access to the network.

The digital divide between the haves and the have-nots can grow or shrink depending on how it is measured and which aspect of the gap is considered. The most recent studies published at the time I'm writing this show two opposite trends. At the start of

a two-day session of the United Nations General Assembly devoted to information technology and development, Secretary-General Kofi Annan explained how “despite commendable efforts and various initiatives, we are still very far from ensuring that the benefits of information and communications technology are available to all.”¹³ At the same U.N. gathering, the Secretary-General of the Geneva-based International Telecommunications Union, Yoshio Utsumi, declared that, “If we do not take any action, the gap between the information ‘haves’ and ‘have nots’ will continue to grow.” On the second day of this session of the U.N. General Assembly, Arab League Secretary-General Amr Moussa stated that, “We have to admit that the legal [framework] needed for handling the information revolution is incomplete in most if not all Arab countries.”¹⁴ At this same meeting, it was announced that the United Nations Development Program is holding talks with Arab states to implement e-governments, exchange data between the Arab League and U.N. agencies, and to help the League upgrade its information technology systems.

By contrast, a separate report, published just a few days after this two-day session of the United Nations, showed that a team from the University of California at Los Angeles found that the gap between those who have Internet access and those who do not is closing when measured against the level of education computer users have

¹³ This quote and the following come from a Reuters report entitled “U.N. Conference Says Digital Divide Still Growing” (June 17, 2002) available online through the New York Times website at <http://www.nytimes.com/reuters/technology/tech-tech-un.html>.

¹⁴ From a report filed by Nadia Abou El-Magd for Associated Press on June 18, 2002.

reached during the same period. And another U.S. government report from February 2002 showed the divide disappearing between urban and rural Internet users, while a third independent report claimed that the division between black and white Americans is narrowing steadily.¹⁵ While the digital divide is obviously still an issue, it is not a crisis, and it is certainly not the most problematic aspect of online communication in the coming decades.

I believe that it is more fruitful to think about a gap in the ability to use information technology rather than in the demographics of personal ownership of information technology. There is, to be sure, a divide between the computer enabled and the computer disabled. Among the computer enabled there is yet another divide; that between the Internet enabled and the Internet disabled. This is where the matter feeds directly into the context of this dissertation. I choose to call this part of the more general digital divide, the *real digital divide*.¹⁶

¹⁵ This information is based on the article “‘Digital Divide’ Less Clear: As Internet Use Spreads, Policy Debated Anew” by Washington Post staff writer Ariana Eunjung Cha, published online on June 29, 2002, at <http://www.washingtonpost.com/wp-dyn/articles/A63831-2002Jun28.html>. The government report is available from the Commerce Department’s National Telecommunications and Information Administration official website at <http://www.ntia.doc.gov/ntiahome/dn/index.html>

¹⁶ I am using the phrase “the real digital divide” following Maisie McAdoo’s essay “The Real Digital Divide: Quality Not Quantity,” in *The Digital Classroom: How Technology is Changing the Way We Teach and Learn*, edited by D. T. Gordon. (Cambridge, MA: Harvard Education Letter, 2000). I am using the phrase in a slightly different sense than she uses it. as her focus is technology in education, while I am applying her argument to creative communication over the Internet.

The figures published periodically about the “digital divide” paint a bleak picture, but the key to the digital divide is clearly in helping people adapt to new technology and not merely in making the technology available for all. At the same time, the *real digital divide* can only be bridged if more people recognize what is really at stake. In public schools, for example, “the issue of equity now centers not on equality of equipment but on quality of use” (McAdoo 2000, 143). The concern is on raising “not just the student level of technical proficiency, but also their level of inquiry” (144). Having the equipment and being connected is clearly not enough. The ability to work with the technology for a meaningful purpose is key to individual development. In the words of Ellen Wahl from the Education Development Center’s Center for Children and Technology in New York City, “The equity issue...is way beyond hardware and even beyond connectivity and probably related to offline skills like literacy” (McAdoo, 149). Taking this line of reasoning to the problematic level of open Internet access, I would argue that the equity issue is beyond having access to technology and education if the network is controlled by corporate intermediaries whose interests are purely commercial, or governments that regulate free speech for one reason or another.

Counting how many households or individuals have access to the Internet is a matter of quantitative statistics. These numbers can never give a true picture of the quality of use. This is why the *real* digital divide should be a greater concern than it is. Moreover, having access to the Internet now does not mean having access to the same

kind of Internet within the next five or ten years, because the architecture of the Internet and the code which drives it are being reengineered by commercial concerns. The risk that the development of the Internet is skewed in favor of commerce is what Lawrence Lessig clearly shows in both *Code* and *The Future of Ideas*. Like Andrew Shapiro, John Perry Barlow, and others, Lessig's eyes are on AOL Time Warner and Microsoft, since they "will define the next five years of the Internet's life" (Lessig, 2001: 267). While Shapiro observes that AOL and Microsoft have positioned themselves as dominant mainstream media gatekeepers, Lessig sees a bleaker picture and claims that "the next five years will be radically different from the past ten," because "[i]nnovation in content and applications will be as these platform owners permit" (267). It is easy to claim that Internet users and consumers in general have a choice not to choose Microsoft or AOL products and services, but the risk is that these companies, and their subsidiaries, will dominate the market anyway. Like any good business venture, they strive to keep their place in the market and grow it. In a global environment of free markets such huge commercial behemoths tend to dominate, yet their pervasiveness does not come about overnight.

Microsoft and AOL became dominant, each in its own way, in the early 1990s. The first hint of the landmark Microsoft antitrust case, and subsequent trial, came in 1990 when the Federal Trade Commission began investigating Microsoft's software marketing practices, focusing on the possible unfair competition from sales of applications and operating systems by the same company. The Justice Department

took over the investigation in 1993 and eventually reached a settlement with Microsoft regulating marketing practices through the year 2000; Microsoft agreed that the Windows operating system licenses would not contain conditions applicable to other Microsoft applications. This arrangement was soon put to the test when the Justice Department continued its investigation of Microsoft to determine whether the plan to bundle Microsoft Network, the company's Internet access service, with Windows 95 constituted unfair competition.

Microsoft's insistence that its Web browser is an integral component of the ubiquitous Windows operating system is symptomatic of the drive for convergence which shapes much of the development of the Internet as a medium in its own right. Just before the release of Windows 98, Sen. Orrin Hatch (R-Utah) chaired a Senate Judiciary Committee hearing on competition in the computer industry. Microsoft, Netscape and several large online service providers (America Online, MCI Communications, EarthLink, and Sprint) received subpoenas to appear at the hearings. By contrast, that summer, a federal appeals court unanimously overturned a lower court's order that had required Microsoft to offer its Internet Explorer browser separately from Windows 95, giving Microsoft room to release Windows 98. The Microsoft antitrust trails stretched over 1999 and 2000, and 2001 saw several appeal hearings and proposed settlements for more than 100 antitrust cases the company has faced over the past few years. In November 2001, the U.S. Justice Department and Microsoft reached a settlement in the antitrust case after an appeals court agreed with a lower court that Microsoft had

illegally maintained its Windows monopoly but rejected splitting the software giant in two to prevent future antitrust issues. At the time of writing this (late 2002), we can safely assume that the end of the Microsoft saga is far from over.

For much of the time that the Microsoft antitrust trail occupied the industry papers, as well as the popular press, the merger between media giants America Online and Time Warner was a problematic union because of the potential for an antitrust scenario by the new company. Time Warner's merger with AOL has created the world's first traditional media company to be directly invested in the Internet. While the Internet has now become the main arena for online communication, electronic bulletin boards and other online services were relatively popular for some years. Bulletin boards services are reached through a direct phone line and a modem but they are usually standalone network computers. To get to another bulletin board, you must first disconnect from the first board and dial a different phone number for the other one. AOL and CompuServe, were the most popular bulletin board services in the early 1990s and they provided the first online experience for many people who entered the online world via a commercial service. In February 1998, CompuServe became a wholly owned subsidiary of America Online, Inc. and thus AOL is now the world's largest online service provider, however, their subscribers are not connected directly to the Internet. Indeed some AOL subscriber hardly ever venture outside the AOL services and only experience the online world on AOL servers.

When the FCC approved the AOL-Time Warner merger, it imposed several conditions designed to prevent the new company from becoming a monopoly in Instant Messaging and broadband Internet access over cable. The main concern was that open access to Internet Service Providers other than AOL on Time Warner's cable system would be restricted. The FCC could not formally block the acquisition. That authority was assigned to the Federal Trade Commission. Time Warner needed the FCC's permission to transfer its various broadcasting licenses to the new company. The AOL-Time Warner merger draws attention to the fact that within this decade, the expansion of broadband technology and the drive towards convergence will make it hard for the average Internet user to tell the difference between relatively random access of various sites all over the Internet, what we now call *web surfing*, and the enhanced (possibly predefined) channel-hopping that will undoubtedly accompany the next generation of the technology where television and the Internet meet in the same appliance.

Microsoft and AOL are not the only two large Internet-related companies operating on a global level. Though its merger with Time Warner, AOL became the largest media corporations in the world, which has been dominated by five mega-corporations for more than a decade. These corporations are commonly referred to as *the Big Five*. They are AOL Time Warner, The Walt Disney Company, Germany's Bertelsmann, Viacom (owners of MTV, CBS, Blockbuster, and much more) and the News Corporation (owners of Fox TV in the United States, over 150 TV channels and

services in the United Kingdom, Asia and Australia, among other business interests). The Big Five have recently augmented by Vivendi Universal which is affectionately known as Europe's answer to AOL Time Warner. To date, Vivendi is the largest corporation to take digital media convergence furthest outside the United States by integrating film, music and mobile phones with an eye on its telecom infrastructure which delivers media services to millions of homes and individuals around the world.

Rick Siegel confessed to me that he decided to turn OnlineTV.com into a not-for-profit organization "to fight the big five as the only venue for art and broadcasting on the Internet that is not controlled by them." His efforts may appear quixotic to some, but Siegel has enough industry credibility to attract media attention in ways which positions him in a David and Goliath scenario. A commentary by Washington D.C.-based journalist Catherine Yang in *Business Week* (October 1, 2001), uses Siegel's OnlineTV.com as an example of what is lost through "big" media ownership. Yang is reacting mainly to current FCC discussions on moving ahead with plans to deregulate the media industry completely, allowing newspapers to merge freely with broadcasters in the same market. The old rules, which are similar to those present in any country that embraces commercial media ownership, ensure that diverse ownership of media channels provides a broad spectrum of opinions and viewpoints. Yet, according to FCC Chairman Michael Powell, "Nobody can intellectually defend

the proposition that the marketplace has not changed dramatically.”¹⁷ This argument is built on the notion that the Web makes the limits for media channels obsolete. In many ways, this has been the central issue I have been discussing in this dissertation. However, what I have pushed across is the fact that commercial interests have historically controlled the development of mass media, and limited access to them as production channels for their own ends.

The tension created between the joy of finding a space for creativity and the way alternative voices are pushed aside in favor of others with a commercial appeal has become a serious concern since commercialism came to the Internet in the late 1990s. Even Janet Murray, whose work is a search for an aesthetic understanding of narrative within new media expressed a related concern, when she wrote, “At the same time that legions of new Web surfers are busy debating politics or posting digitized pictures of the family schnauzer for the enjoyment of distant dog lovers, media conglomerates are trying to carve up cyberspace into revenue-producing fiefdoms” (1997: 252). By discussing critical issues such as archiving, technical standards, copyright, and corporate takeover, as they affect the Internet in general and webcasting in particular, I propose to show what qualities the medium has that make it a rich resource for performance, regardless of mainstream commercial interests.

¹⁷ See “Media Ownership: Why Bigger Is a Big Mistake,” by Catherine Yang; available at http://www.businessweek.com/magazine/content/01_40/b3751045.htm

6.2 CONCLUSION

In the end, what really matters is that the Internet is a medium though which consumers are also to a large degree creators of what is consumed. This is how it was during the 1990s, and how it still is now, in spite of the overwhelming volume of commercial clutter on the Web. Radio was once a medium that had this promise, but it is now largely a one-way mode of communication with the very few controlling access to the airwaves and airtime. Radio listeners are mere consumers of whatever is allowed on the air. From a production point of view, media access is a question of who can do what, where, and how. While still clearly in its infancy, the Internet has shown that it is a very fertile ground for new modes of performance, which, in some form or other, will soon augment the vast array of genres and modes of performance that already exist beyond mere experimentation. If the Web does not remain an open medium, interactive online performance may be reduced to the wonders of global e-shopping. It is only if independent online content producers realize their position in the unbalanced “control revolution” that they can work towards keeping the Internet an accessible medium, rather than leave it to become another commodity that can be floated on the stock market.

What matters most right now is not what webcasting will be like when it matures into its own art form, as interesting as that may be, but whether the Web will remain the open network that it has been up to now: a network where anyone who wants to

produce their work online, and is enterprising enough to master the technology, is not hindered in any way by the bureaucracies of control.

What is evident from my close observation of experimental performance on the Internet, particularly with the Franklin Furnace artists I have discussed in this dissertation, is that it is only by exploring the Internet that the uninitiated can realize what is available to them, and decide whether the Internet is something they want or need for themselves. In practical terms, I strongly believe that if basic technical skills related to the Internet are made available to those who would otherwise not even think they need them, a variety of works will be made available to audiences who would otherwise possibly not even be aware they existed. This reminds me of media theorist Margaret Morse's cautionary words: "To be excluded from information society is to become invisible to those enveloped by virtual worlds and engrossed in interaction with machines" (1998: 35). Economic trends clearly show that interaction with digital information technology is on the rise.

The Internet is still in its infancy, from an aesthetic perspective, but this is something positive, from a creative perspective, since much may be learned through experimentation. What is more remarkable is that media mogul David Sarnoff recognized the power that media control can have on creativity, so many years ago, explaining that "[c]reativity is not possible without information coming in, and it is not purposeful without information going out" (1967: 223). This in itself is merely an

assumption that a degree of feedback between two parties is required for interactivity. Of greater significance here, however, is that immediately after this exaltation of interactivity he adds, “this two-way flow can occur only through the channels we establish for communications” (223). And while it can be argued that Sarnoff meant that more channels of communication should be established, I would argue that it is also evident that whoever controls the channels of communication can control access to the growth of the creative process.

Franklin Furnace is exploiting the Internet’s power to reach vast audiences, but so far it has not sought to control its own channels of online communication. To start taking control of this, it must adopt a strategy similar to the one it had for the physical space on Franklin Street. When Franklin Furnace purchased the loft and basement at 112 Franklin Street in the 1992, it secured its physical space and invested in real estate. The problem with adhering to the city fire code in the basement performance area, which I mentioned in chapter 4, could have been resolved with Bernard Tschumi’s new design for the whole space as a downtown arts emporium. After selling the building and reinventing itself as an online organization in 1997, Franklin Furnace no longer had the same foothold of its channels of communication. The sour ending to its relationship with Pseudo.com is a clear indication of how much control Franklin Furnace entrusts in others. While there have been discussions about how to secure the channels of communication, the organization has no concrete plan to enact this in the

foreseeable future. Its current main goal is to establish its archive and other resources as a pedagogical tool within an established institution of higher learning.

Any higher education establishment that acquires custody of Franklin Furnace and all its assets can enable the organization to exercise better control over its channels of communication, because academia is seriously invested in an alternative to the commercial Internet. That alternative is Internet2, a network of networks that operates parallel to the Internet but independently from it. The Internet2 consortium already includes the collaboration and participation of over two hundred universities working in partnership with major corporations and the U.S. government to preserve the original goals of the Internet as they were before it became tangled in commercial concerns. Franklin Furnace has already established a working relationship with New York University, and prototype projects the two have undertaken together indicate that a stronger collaboration could greatly enhance the preservation burden Franklin Furnace is currently facing with its digital archives.

Another example of how academia can benefit the cause of independent Web content producers and organizations like Franklin Furnace can be found in The Chilling Effects Clearinghouse, a joint project between the Electronic Frontier Foundation and the law clinics of a handful of major law schools in the United States.¹⁸ Chilling

¹⁸ Universities involved in the Chilling Effects Clearinghouse include Harvard, Stanford, Berkeley, University of San Francisco, and University of Maine. See the official website at <http://www.chillingeffects.org>

Effects aims to disseminate information about First Amendment rights and intellectual property laws to online activists and other individuals who express their personal views, parody politicians and corporations, or celebrate their favorite celebrities. The Chilling Effect website explains in lay terms the various laws relating to copyright, domain names, trademarks, anonymous speech, defamation, and fan fiction; all the fronts on which the battles against keeping the Web as an open medium are fought.

While Franklin Furnace is the first to admit that it has far from found a solution to the critical issues, which threaten its mission to foster the dissemination of artists' ideas, it firmly believes that the best way to move forward is to align itself with a larger organization that is already making headway in its endeavors to preserve the Internet as an open medium.

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