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Virtually Gutenberg : computer bulletin boards and the First Amendment through United States v. Riggs and Neidorf

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**Virtually Gutenberg: Computer bulletin boards and the first
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Maille, Joseph Charles, M.S.

San Jose State University, 1993

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VIRTUALLY GUTENBERG: COMPUTER BULLETIN BOARDS AND THE FIRST
AMENDMENT THROUGH UNITED STATES V. RIGGS AND NEIDORF

A Thesis

Presented to

The Faculty of the School of Journalism
and Mass Communications
San Jose State University

In Partial Fulfillment

of the Requirements for the Degree
Master of Science

by

Joseph C. Maille

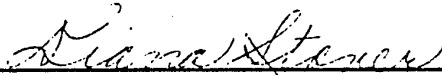
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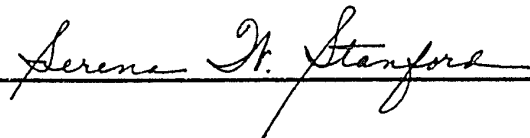


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ABSTRACT

VIRTUALLY GUTENBERG: COMPUTER BULLETIN BOARDS AND THE FIRST AMENDMENT THROUGH UNITED STATES V. RIGGS AND NEIDORF

By Joseph C. Maille

This thesis provides an analysis of emerging conflicts between traditional First Amendment protections and the increasingly computer mediated infrastructure of modern mass communication. As digital communication and computers merge with common carriers and mass media, the conventional distinctions between these categories have begun to dissolve. This analysis uses the case law associated with computer bulletin boards, electronic magazines and the personal experiences of pioneers in this field as source material.

The study reveals that First Amendment distinctions between media types may inhibit the potential for free speech in the emerging many-to-many media model. The distributed and interconnected nature of new media forms, such as computer bulletin board systems, means that the ability to broadcast belongs to any participant in the network. Based on developing case law, the courts are reluctant to recognize First Amendment concerns from non-traditional publishers in the growing network model.

DEDICATION

To my wife, Ana, and my sons, Charles, and Matthew.

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CHAPTER 1

Introduction

Peter Samson arrived at the Massachusetts Institute of Technology in 1958 with a fascination for complexity and an unwillingness to give up. Beginning at the Model Railroad Club on campus, as many of the brightest tinkerers did, he gradually found his way to the computer room and the most complicated systems he had ever seen. The members of the Model Railroad Club were accustomed to hacking away at the complex switches of the railroad and brought that persistence and artistry to the computer room. Under the loose supervision of Artificial Intelligence pioneer John McCarthy, Samson and others nurtured an environment of creativity, sharing, and exploration that would revolutionize the way humans used, and thought about, computers (Levy, 1984; Palferman & Swade, 1991).

The young programmers hacking through the operating system of early computers at the Massachusetts Institute of Technology were not specifically interested in the First Amendment (Hafner & Markoff, 1991; Levy, 1984). They were concerned with accessibility to machines that seemed to exist only to test their abilities (Levy, 1984; Palferman & Swade, 1991). Their abilities were at the forefront of computer programming technology, and these original hackers developed an ethical manifesto that persists to this day.

The hacker ethic is the notion that information wants to be free (Levy, 1984; Sterling, 1992).

In the early 1960s, the hacking phenomenon spread across the country with the growing presence of computers in major universities. It was not long before the adolescent wonders met up with the little-known outlaws of the telephone system--the phone freaks or phone phreaks as they referred to themselves (Levy, 1984; Sterling, 1992). Together this group could enter computers by telephone line through the biggest computer of them all--the telephone system (Clough & Mungo, 1992). With homemade Blue Boxes, designed to generate tone codes, the telephone system could be forced to yield untraceable free calls that were exactly what the knowledge hungry hacker community required (John Draper, personal communication, March 9, 1993).

A skilled hardware hacker and political radical, Lee Felsenstein found a home for his restless intellect in the growing hacker community. The Community Memory Project, a system of public mini-computer terminals and conferencing software in Berkeley developed by Felsenstein in 1973, was intended to bring the freedom of unmediated electronic communication out of the computer lab and into the public imagination (Felsenstein, 1993; Levy, 1984). Felsenstein nurtured a vision that would stay with him through the ensuing years of change.

In 1975, Felsenstein helped found the Homebrew Computer Club where Steve Jobs and Steve Wozniak evolved from manufacturing Blue Boxes to building a prototype of the Apple computer (Levy, 1984; Palferman & Swade, 1991). "In the '60s I thought that the cause of re-establishing functioning communities could be served by the newly established 'underground press,' and for a while I helped at the Berkeley Barb, one of the oldest such papers. But I saw the structure of the medium determine its economics and thereby its content. By 1970 I knew that broadcast media were never going to serve the cause of decentralization of power within society" (Felsenstein, 1993, p. 19). From the hacker ethic, and later the imagination of novelist William Gibson, grew the idea of cyberspace (Tomas, 1991).

In 1984 William Gibson published a novel called Neuromancer that prophesied a world in which cyberpunk cowboys physically jacked into computer networks to access information in a sinister information economy. These ice-breakers were the inhabitants of a world called cyberspace. For the characters in Neuromancer, cyberspace was an electronically synthesized world. For America in the 1990s, cyberspace is the place in which telephone calls occur or where the Special Interest Groups of Compuserve have their meetings. Cyberspace is the world in which computer-mediated-communication takes place (Rheingold, 1993).

However, as the technology of the printing press dissolves into the virtual machine of computer software, the euphemism of cyberspace is left with tangible problems (Emord, 1992; Kapor, 1993).

Electronic media in the United States, unlike print media, have traditionally been subject to government regulation and oversight. While print media are learning to utilize new communication technology, the new media promise to expand the individual's ability to participate in mass media as a producer and controller of content (Baum, 1993). But, the regulatory environment that accompanies new media technology is anathema to the liberties traditionally associated with the printing press (Emord, 1992; Kapor, 1993).

The print magazine 2600--named after the frequency required to enter the telephone system illicitly--is little more than a newsletter for the community of phone freaks and computer hackers. Published by Emmanuel Goldstein, an ideological descendent of 1960s radical Abbie Hoffman with a pseudonym derived from George Orwell's 1984, it is a forum for people calling themselves Phiber Optick, Knight Lightning, Captain Crunch and other colorful pseudonyms to discuss the telephone system and how to control it (Rheingold, 1993; Sterling, 1992). Although the telephone companies have had poor luck trying to shut down 2600, they

were able to overcome traditional First Amendment barriers when they discovered a similar journal called Phrack that was being published by Knight Lightning, in real life a student named Craig Neidorf, and distributed across an informal network of bulletin boards (Rheingold, 1993; Sterling, 1992). Phrack was not perceived to have the same First Amendment protections that 2600 had been able to exercise (Sterling, 1992).

The First Amendment has evolved to accommodate technologies that were inconceivable at the time it was written. But it has evolved spasmodically. The new technologies of communication are descended from Alexander Graham Bell while the First Amendment was directed at technology descended from Gutenberg (Beniger, 1986; Neuman, 1992). Although the printing press was not free from regulation at its inception, the United States Supreme Court has determined that the First Amendment is not limited to the printing press, but also that the First Amendment is not entirely unlimited (Eisenstein, 1979; Emord, 1992). Somewhere in between is the legal precedent that comprises the current manifestation of the First Amendment as interpreted by the courts.

The purpose of this thesis is to examine and analyze the impediments to the application of full First Amendment protection in the distributed and networked environment of

computer bulletin boards. Specifically, this thesis provides an analysis of the changing law pertaining to computer bulletin board systems and the system operators.

CHAPTER 2

Background of Study

Computer Bulletin Board Systems

On February 16, 1993, Ward Christensen and Randy Seuss visited a Chicago pizzeria to see what they and 15 years had wrought (Christensen, personal communication, March 9, 1993; Rheingold, 1993). It was a birthday party of sorts for the software they called Computer Bulletin Board System. The first computer bulletin board system went on-line in February of 1978 after Christensen and Seuss wrote the software to allow members of the Chicago Area Computer Hobbyists Exchange to keep in touch and share information about the growing personal computer phenomenon (Christensen, personal communication, March 9, 1993; Rheingold, 1993). With the appearance of bulletin board software, small personal computers could communicate the way mainframe and mini-computer terminals had all along. It was the opening of a new frontier.

By 1993 there were more than 600 computer bulletin board systems in the Greater Chicago area including the original one developed by Christensen and Seuss (Rheingold, 1993), and more than 45,000 in the United States (Rickard, 1993). Of the 45,000 systems in operation at the end of 1992, approximately half will no longer exist at the end of 1993, but the total number of systems is still expected to

rise to 60,000 by the end of 1993 (Rheingold, 1993; Rickard, 1993). The real number of bulletin board systems may be unknowable. The growth rate is doubling every 18 months, with the advent of inexpensive powerful computers and the proliferation of inexpensive bulletin board system software packages (Rheingold, 1993; Rickard, 1993).

Computer bulletin board systems can be small forums running on a home computer with a single system operator or they can be large computer conferencing services like the Prodigy system, developed by International Business Machines and Sears, running on enormous hardware platforms (Naughton, 1992). By the Fall of 1993, the Prodigy service had about 40,000 access lines and 2.1 million subscribers (Rickard, 1993). Conferencing services are vastly larger than conventional bulletin board systems, but do not differ significantly in the services they offer. It is the size and corporate sponsorship that differentiates conferencing systems from the conventional bulletin board system. The larger systems have more formalized protocols for on-line behavior, but the smaller systems rely increasingly on subscription contracts to define acceptable behavior (Naughton, 1992; Rose & Wallace, 1992).

Failure to follow the rules of a bulletin board system can lead to a user being locked out of the system by the system operator. Custom dictates that such measures are

reserved for serious matters (Rose & Wallace, 1992). The use of log-on procedures and contracts, particularly those involving commercial bulletin boards, serves to defeat the notion of bulletin boards as public fora (Naughton, 1992). This should not be generalized to all bulletin boards since the mechanics of using a bulletin board necessitates identification of, and distinction between, different users.

In many cases, bulletin board systems begin as inexpensive personal computers equipped with one or more modems and specialized yet inexpensive software that allows outside callers to access information on the machine where the bulletin board resides. A user would call the bulletin board system with a modem-equipped computer running simple communication software. Often the subscription process consists of no more than selecting a code name to identify the user on the system. With commercial bulletin boards or those providing specialized services, there may be passwords and a user contract to define the permissible behavior of system operator and user. For those systems, a telephone call from the system operator serves as verification of identity.

These remote bulletin board computers are often being run by individuals for the benefit of narrow and informal special interest groups, but increasingly they are small business opportunities for refugees from the technical job

market. The EXEC-PC bulletin board was started in 1983 by Bob Mahoney, as a one-line board in his apartment for the purpose of offering consulting services on-line (Rickard, 1993). EXEC-PC now has 250 telephone lines, receives approximately 4,500 telephone calls per day, and users download approximately 750,000 files per month, making it the largest of the cottage industry bulletin board systems (McGinness, 1993; Rickard, 1993). The system has 30,000 subscribers from more than 40 countries with an annual subscription fee of \$75 that resulted in an annual gross income of \$2 million (McGinness, 1993; Rickard, 1993).

A much smaller system called Event Horizons may be the most profitable bulletin board system. Intended as a graphics library and exchange for astronomy, the system has grown into a \$3.2 million per year distributor of adult images (McGinness, 1993; Rickard, 1993). Frequent copyright infringement of images from Playboy and Penthouse have encouraged these publications to start their own on-line services in addition to vigorously prosecuting copyright offenders. Computer bulletin boards of all types are estimated to be a billion dollar per year business because of the ability to transmit a wide variety of media forms (McGinness, 1993; Rheingold, 1993).

Although many bulletin boards are limited, because of telephone rates, to users within a particular telephone area

code, there are bulletin boards that have expanded beyond a particular area. Once connected to an expansive network, such as the Internet, the bulletin board systems become available to millions of potential users. The Internet is an informal collection of computer networks that have been linked to one another so users of one network can communicate and share resources with users of other networks. The Internet has literally grown out of the ARPANet that was created by the Defense Advanced Research Projects Agency to connect government, military, and academic computer systems in a network with a redundant communication capability (Quarterman, 1993). In 1986, the National Science Foundation began the development of the NSFNet which now provides the backbone of Internet communication.

The Internet is a 10-million user system with networks of more than 1.5 million government, academic, commercial, and personal computers that contain enormous quantities of data, including specialized news forums (Kapor, 1993; Stix, 1993). Usenet or Netnews is a distributed bulletin board of more than 1,800 news groups (forums) on a vast range of topics, with more new groups being added almost daily (Rheingold, 1993). Individuals may obtain access to the Internet in a variety of ways including public access networks (Pubnets). Pubnets are bulletin board systems that

specialize in offering inexpensive access to the Internet. As the Internet grows in popularity, and the amount of information available becomes increasingly distributed across the Internet, it becomes necessary to use search programs to gather data (Babcock, 1993).

The ability of the emerging communication infrastructure to allow intelligent storage and processing of text, sound, and video images suggests that bulletin board systems may be a model for the home information appliance. Digital communications are faster than analog communications and they are easily processed by digital computers. These factors are fundamental, because they bring the phenomenon of electronic intelligence into the processing and storage of information (Beniger, 1986; Neuman, 1991). The coding of digitally stored information provides unique storage and processing opportunities (Beniger, 1986; Neuman, 1991). "The codes serve as labels. Computer-based digital technologies routinely read and interpret these labels and can actively process and manipulate the information as it passes through the system The phenomenon of a digital medium 'knowing' what information it is processing has proved to be a critical factor in the integration of new media networks" (Neuman, 1991, p. 52). High capacity computer networks are

fundamental to any expansion of electronic newspaper distribution (Cerf, 1991; Dertouzos, 1991; Stix, 1993).

Electronic Newspapers

In 1945, Vannevar Bush envisioned an information appliance that would give instantaneous access to the entire store of the world's knowledge (Bush, 1991; Neuman, 1991). Some of the technology for Bush's Memex was already in place, but much of it was in its infancy. That vision has persisted and maturing computer technology is making it possible for people to gather data and inform themselves according to criteria they have established.

These ideas may have been around for a long time, and key technologies are arriving in the marketplace that make the information appliance a reality for many people (Krol, 1992; Laurel, 1990; Oren, Salomen, Kreitman, & Don, 1990). These changes reach beyond text to include digital transmission of sound and video. The decade of the 1990s will likely see the merging of High Definition Television (HDTV) with very fast personal computers, object oriented programming technology, and high bandwidth delivery systems that supplant traditional TV, telephone, and communication services (Baum, 1993; Kapor, 1993; Negroponte, 1993; Stix, 1993).

The personal computer, when linked to a database or bulletin board system, can become an information appliance.

In a primitive fashion, the user can call commercial information services like CompuServe, Lexis, or Dialog and search for information on specific topics. In a more elegant manner, it is possible to use "agents" or "guides" to automate the process of retrieving information from remote distributed databases (Krol, 1992; Laurel, 1990; Oren, Salomen, Kreitman, & Don, 1990; Stix, 1993). To enable users to handle the complex functions of on-line searching across a distributed computer network, researchers have developed software agents such as Gopher and WAIS that can follow a specific set of criteria to search database archives or wire service listings for key words that define the users' interests (Babcock, 1993). The automation of these steps can produce the equivalent of a newspaper or news program that is customized for each user. Computer software agents can gather data from multiple sources and package it in a coherent format following guidelines established by the end user (Laurel, 1990; Oren, Salomen, Kreitman, & Don, 1990; Stix, 1993).

The significance of interface agents in personalizing the mass media is a topic of debate. Individuals like Brenda Laurel of Apple and Nicholas Negroponte of the Massachusetts Institute of Technology's Media Lab have a decided bias toward empowering the end-user to take more control over content (Laurel, 1990; Negroponte, 1990, 1993).

"In some form we can expect surrogates who can execute complex functions, filter information, and intercommunicate in our interest(s)" (Negroponte, 1990, p. 352). Some researchers from the media industries have taken a different view.

Neuman (1991) discussed the promise of automated information retrieval, but hesitated to speculate on a strong impact. According to Neuman (1991, p. 104), the use and potential of interactivity "will be constrained by the passive psychological approach and limited energies of the average user." Neuman does not seem to give adequate consideration to automation as an element in interactive media use. This is pivotal to his contention that the rapidly expanding media are constrained in the breadth of media images they can produce. He assumed that the end user only receives an image manufactured by someone else. However industry has invested millions in the potential market for creating custom interface agents to overcome the low salience barrier to interactivity (Stix, 1993). As might be expected, this use of computers has been limited to an economic and academic elite. This is changing rapidly, as evidenced by the Knight-Ridder service Mercury Center (Stix, 1993), and has implications for commercial news distribution, mass communication theory and the First

Amendment (Beniger, 1986; Neuman, 1991; Rose & Wallace, 1992).

Major computer companies like Microsoft are struggling to bring their technology to the realm of television and so usher in a new era of user control (Davis, 1992; Kapor, 1993; Rheingold, 1993; Stix, 1993). It is already possible to use a TV for digital photograph projection or interactive digital video games (Baum, 1993). Just as broadcast television competes with cable and video rentals so television viewing will have to compete with other uses for the television set. With a television listing, the consumer can decide what to watch or record on any of an increasing number of channels. As technology increases the viewers' options so the need for more sophisticated television listings will increase. This offers the possibility of removing mediation from the media (Fulton, 1993). "People have been fast forwarding through unwanted sections of newspaper and magazines since their inception, and so the basic question of user control is not fundamentally new, but the cumulative impact of expanding and automating such filtering and information-processing capacity across the full range of information sources remains to be determined" (Neuman, 1991, p. 70).

Fidler (1992) suggests that the beneficiaries of this technology will be the reporters and editors who use them in

traditional journalism surroundings. "There is a growing belief among some executives who anticipate a decline in ink-on-paper journalism that newspaper holdings should be reduced in favor of more profitable business information services Fiber optics and 'electronic paper' will transform mass communication into an interactive, multimedia format, but it will be content, not technology, that determines its success. And content is what newspaper publishers know best" (Fidler, 1992, p. 26).

Franklin (1992, p. 27) noted, more optimistically than others, that the shift toward database journalism will create an overlooked demand for quality research and writing that bodes well for the most creative publishers and talented journalists:

Advertising will dwindle and newspapers will have to rely more heavily on readers to pay the freight. As readers pay directly for information, rather than through advertising costs that manufacturers add to products, they are bound to become more discriminating about what they get for their money. This in turn means that the work we do will become more important and more demanding.

Franklin (1992) and Fidler (1992) point out the qualifications of trained journalists to create the substance of any system using information as a commodity. They contend that the changing nature of distribution methods will put a premium on the best research and writing. Direct payment for information rather than indirect payment

through advertising revenue will shift available funds to those institutions and individuals that meet the needs of the consumer on a fundamental level.

The newspaper industry has experimented with on-line distribution over the years including Knight-Ridder's VIEWTRON project and Times-Mirror's Gateway service. (Bennett, 1992). These projects became industry disasters. "The costly intrusion into unfamiliar territory had left newspapers gun shy about consumer electronic services" (Bennett, 1992, p. 47). Gannett currently offers USA Today Decisionline to computer bulletin board system operators who want to provide a text-based morning news service to their users.

The merging of audio and visual technology with personal computers will blur the distinction between media types. "The traditional printing press is dying--and much more rapidly than anyone realizes While no one expects printing presses to die any time soon, their role in mass communication will be greatly diminished in the next 20 years More than half the cost of publishing newspapers is now attributed to manufacturing and distribution" (Fidler, 1992, p. 26). Fidler noted that electronic publishing will be less costly since capital outlays and publishing costs will be reduced.

"Certainly, paper has not yet lost its place as a medium of communications, but the text and images we find on the page increasingly are getting there through electronic processes Furthermore, electronic mass communications media that involve no printing or paper at all are growing at a much faster rate than are print media" (Neuman, 1991, p. 50). Newspapers have been experimenting with two types of fax products: specific subscriber and fax-on-demand (Bennett, 1992). The Hartford Courant offered the first subscription-based fax product. The New York Times followed with a subscription product sold in Brazil, Japan, Australia, the Caribbean, and aboard more than 30 cruise ships (Bennett, 1992). "Fax-on-demand, however, is proving to be a more popular choice for newspapers" (Bennett, 1992, p. 48). This includes The Atlanta Journal & Constitution, The Fresno Bee and The Detroit Free Press (Bennett, 1992).

The speed with which these changes are taking place, and their impact on the economics of publishing, has prompted renewed interest in on-line technology: "Instead of devoting so much effort to battling change, the newspaper industry must prepare to embrace it" (Fidler, 1992, p. 26). The Information Highway proposed by Vice President Albert Gore and advocated by the White House will be the backbone of digital communication technologies that would seem like science fiction to the average citizen (Warren, 1993). The

relative roles of author, publisher, distributor, and consumer are less discrete and the economics of media production have, to some extent, shifted away from monolithic publishers. Kapor (1993, p. 59) noted:

In an on-line world, open and closed models exist. Commercial services like Prodigy and, to a lesser extent, CompuServe and America On-line, tightly control who can put content into the service. At the same time, the existence of 45,000 individually controlled bulletin boards testifies to the fact that a lot of people want to run information services.

The increase in user control and interactivity may result in an explosion of mass media producers while communication networks become increasingly distributed (Savetz, 1993). As users gain unprecedented levels of control over the breadth of electronic media it is possible that legal limitations will be placed on these technologies long before their potential is realized (Teeter & Le Duc, 1992). On this shifting paradigm, the courts must establish a way to protect the free press as the press itself dissolves into a bit-stream.

Digitizing the First Amendment

As technology continues to increase the capacity of mass communication distribution systems in the future, that expansion will stimulate the launching of new forms and combinations of media services. That in turn will require a drastic reformulation of mass communication principles derived from our Constitution, but defined by the Congress and the courts during an era when legal distinctions that once were apparent gradually will have disappeared (Teeter & Le Duc, 1992, p. 759).

The Constitutional rights to freedom of speech and freedom of the press apply theoretically, if unequally, to electronic media of all kinds (Orlik, 1992). Le Duc and others have speculated that the revolutionary promise of digital communication may require a dramatic break with traditional First Amendment distinctions among communication media. Advances in computer technology have brought society to a new frontier in communications, where the law is unsettled and may be inadequate to deal with the problems associated with digital communication technology (Huber, 1993; Rose & Wallace, 1992; Tribe, 1991). Since free speech and association are fundamental in securing all other rights the First Amendment is the most important constitutional guarantee.

The print model for First Amendment protection may be the purest example of a free press in the United States. Traditional forms of speech--the print media and public speaking--have benefited from greater freedom from governmental interference (Katsh, 1989). However, the United States Supreme Court has not afforded the same degree of freedom to electronic broadcast technology of the past century (Emord, 1991). The First Amendment has been challenged by every important technological development with only a mixed record of success (Orlik, 1992).

The Supreme Court initially justified regulation of the broadcast media on technological grounds (Orlik, 1992). There were assumed to be a finite number of radio and television frequencies, so the Court believed that regulation was necessary to prevent interference among frequencies and to ensure that scarce resources were allocated fairly (Emord, 1991). The growth of cable TV networks has demonstrated the falsity of the scarce resource rationale, but the Court has expressed a reluctance to abandon its outmoded approach without some signal from Congress or the FCC (Teeter & Le Duc, 1992).

Pool (1983) and others note that regulatory policy is based on different assumptions about print, common carriers and broadcasting. Lawmakers have sought to minimize traditional controls on printed speech by rejecting the types of censorship associated with it, such as prior restraint, taxation, and seditious libel. But regulators concerned with the social good required common carriers, such as the postal and telegraph systems, to provide universal service without discrimination (Emord, 1991; Orlik, 1992).

Assuming that the broadcast spectrum was a scarce commodity, regulators have designed a regulatory system for radio and TV based on government licensing, business advertising, and a limited number of channels (Teeter & Le

Duc, 1992). Later regulations included the Fairness Doctrine (imposing on licensed broadcasters an obligation to cover issues fairly), which regulated the content of speech (Teeter & Le Duc). But as technologies merge, traditional distinctions between media may no longer be applicable. Historically, the law has responded to, not anticipated, technological changes, and regulation of electronic communication has been influenced more by market and political forces than constitutional principles or legal issues (Emord, 1991; Orlik, 1992).

Recent developments in computer technology provide an opportunity for lawmakers and courts to abandon the distinction between the print and electronic media and to extend First Amendment protections to all communications regardless of the medium. As Kapor (1993, p. 53) noted:

Life in cyberspace is often conducted in primitive, frontier conditions, but it is a life which, at its best, is more egalitarian than elitist, and more decentralized than hierarchical. It serves individuals and communities, not mass audiences, and it is extraordinarily multi-faceted in the purposes to which it is put. In fact, life in cyberspace seems to be shaping up exactly like Thomas Jefferson would have wanted: founded on the primacy of individual liberty and a commitment to pluralism, diversity, and community.

There are laws on the federal and state levels with potential impact in the electronic domain: the Privacy Protection Act, Freedom of Information Act, Wiretap Act, Paperwork Reduction Act, sunshine laws, obscenity laws, and

laws regulating copyright, trademark, interstate commerce, and product liability (Emord, 1991; Rose & Wallace, 1992; Teeter & Le Duc, 1992). This proliferation of laws tends to reinforce the most restrictive standard (Lance Rose, personal communication, March 9, 1993). Since user and operators cannot be fully informed about all potentially relevant rules, they cautiously stay within the boundaries of the strictest regulation that may apply (Lance Rose, personal communication, March 9, 1993).

Copyright law, for example, is poised to undergo significant changes as it applies to computer databases and artificial intelligence agents. The decision in Feist Publications, Inc. v. Rural Telephone Services, Inc. (1991) suggested that a work must have some element of creativity to be copyrightable. Although it may be too early to project the future development of copyright law, it is in keeping with precedent to suggest that the right to copyright is dependent on some element of human contribution (Miller, 1993). In the case of bulletin boards that distribute materials that are already copyrighted, it is evident that the volume of traffic serves to prohibit operator intervention on behalf of copyright enforcement. Many system operators depend on messages prohibiting such traffic that are viewed by each user as he or she logs-on to the system (Rose & Wallace, 1992).

The legal landscape in the bulletin board system world is unsettled, for several reasons; first, the number of laws pertaining to data communication create a great deal of confusion, second, there can be several different kinds of laws relating to a single activity with each law pointing to a different result, and third, conflicts can arise in networks between different jurisdictions on the same subject (Rose & Wallace, 1992).

There are two main kinds of legal risks faced by a bulletin board system operator, first, the risk that the system operator will be found criminally guilty or civilly liable, and second, the risk of having his system confiscated because someone else did something suspicious on his system (Rose & Wallace, 1992). Contracts may be used to create effective on-line legal environments. On-line services like The Well, Comuserve, or Prodigy use contracts to specify acceptable behavior.

Most bulletin board systems neither monitor nor control E-mail, but many edit or otherwise restrict the messages on their bulletin boards (Rheingold, 1993). Some, such as the Whole Earth 'Lectronic Link (the WELL) in Sausalito, CA, place all responsibility for words posted on their system with the author, removing only clearly illegal or libelous material (Rheingold, 1993). The WELL community

of about 5,000 members so far has regulated itself effectively. Other systems are less tolerant.

In 1988, Stanford University attempted to block a jokes section of the bulletin board Usenet after becoming aware of an ethnically derogatory joke posted on it (Rheingold, 1993). The ban, though official policy, could not be implemented technically, and the jokes continued to be available throughout the campus (Rheingold, 1993). After a protest by students and faculty, the ban was lifted (Rheingold, 1993).

Prodigy has been more assertive in controlling the content of its bulletin board. It asserts the right to do so as a private company contracting with customers to deliver a service, and as a publisher selecting the content of its on-line publication much as an editor edits the op-ed page (O'Connor, 1990). Messages are scanned by a computer to catch words and phrases Prodigy deems offensive.

This editing has been controversial throughout Prodigy's existence (O'Connor, 1990). In 1989, Prodigy deleted a section of the bulletin board, "Health Spa," after an exchange between homosexuals and fundamentalists. The next year, it banned messages from members protesting its pricing and editorial policies (O'Connor, 1990). More recently the Anti-Defamation League publicly condemned the bulletin board for carrying grossly anti-Semitic messages

(O'Connor, 1990). Prodigy responded that the messages were protected speech, but conceded that it made a distinction between derogatory messages aimed at individuals and those aimed at groups (O'Connor, 1990).

The media constitute a communal conversation, but First Amendment law has not treated all communication technology alike. An important consideration for mass communication research is, therefore, whether the precedential changes to the First Amendment and its selective application are creating a new legal landscape for the journalist of the near future?

We can learn an important lesson from the history of broadcast regulation in the United States and in other countries: namely, that legislatures and the courts are reluctant to recognize in a new medium the same kind of protections they unhesitatingly grant to the traditional media with which they are already familiar (Godwin, 1993).

CHAPTER 3

Method

This thesis provides an analysis of the brief history of computer bulletin boards and the associated legal developments concerning First Amendment issues, including a review of the growth of bulletin board systems based on industry listings. The analysis will define the case history and legal precedent that have served to establish bulletin board systems as channels of publication and system operators as publishers and editors in practice and in the law. The thesis examines the ways in which bulletin board systems and system operators differ from their journalistic counterparts.

The primary method of analysis combines legal analysis with expert opinions of the circumstances, arguments, and decisions in key cases involving computer bulletin boards. There is sufficient case law, including United States Supreme Court decisions, to define a historical trend in the courts. Third party sources including competing interests are well represented in industry literature and Amicus briefs. The legal analysis traces the development, through key cases, of the current state of law concerning bulletin board system operators and their First Amendment protections as new media. It emphasizes the right to publish and case law appropriate to the issues of prior restraint of

publication. Copyright, privacy, and tort laws are outside the scope of the thesis except insofar as specific cases may influence the foundation of First Amendment protection for the bulletin board systems and their operators.

There is a significant gap between those who fully understand the technology and those who fully understand the law. In the effort to provide a fair and informed analysis, a wide variety of literature and expert opinion was used to balance traditional legal research with information on changes in the technology of communication. Considerable popular literature has been written considering the implications of new technologies on First Amendment rights. Law journals and academic papers have been slower in arriving, but are greatly improving the quality of debate in this area.

In addition to the literature review and legal analysis, opinions from experts were gathered through electronic mail to add perspective and obtain in-depth responses to complex questions. Much of the debate concerning these issues has been taking place in the electronic fora of computer bulletin boards and on-line services. Although electronic mail is often archived on various computers, it is rarely organized in a fashion that meets the needs of scholars. Valuable background information was gathered by reading the archived conference

proceedings and legal briefs in the Electronic Frontier Foundation forum and the Computer Professionals for Social Responsibility forum of the Whole Earth 'Lectronic Link (WELL). In addition, the Computers, Freedom and Privacy Conference of March, 1993, was instrumental in providing background information as well as initial contact with individuals who are involved in this area of the law.

CHAPTER 4

Legal Analysis

Prior Restraint and the Sword of Damocles

Users and operators of bulletin boards have become concerned that the new media will be subject to a regulatory environment that stifles rather than encourages the full use of the technology (Rheingold, 1993; Rose & Wallace, 1992). When movies were invented, the Court held that movie exhibitions were not entitled to First Amendment protection. When community access cable TV began, the Court hindered efforts to provide it at low cost by holding that requiring landlords to install small cable boxes on their apartment buildings amounted to a compensable taking of property (Teeter & Le Duc, 1991). In Red Lion v. FCC, the Court ratified government control of TV and radio broadcast content with the dubious logic that the scarcity of the electromagnetic spectrum justified not merely government policies to auction off, randomly allocate, or otherwise ration the spectrum according to neutral rules, but also much more intrusive and content-based government regulation in the form of the fairness doctrine (Tribe, 1991). There is a growing contingent of legal scholars who believe that such regulation is, in essence, a prior restraint on publication (Emord, 1991; Huber, 1993).

In Near v. Minnesota (1931) The Saturday Press was found in violation of a Minnesota statute that proscribed the publication of any malicious, scandalous, and defamatory newspaper, magazine, or other periodical for publishing a series of articles concerning local corruption. When the state Supreme Court affirmed the lower court's decision, based on the determination that the statute did not constitute a prior restraint on legitimate publication, Near appealed to the United States Supreme Court.

The United States Supreme Court found in a 5 to 4 decision that the Minnesota statute constituted a prior restraint on publication because it was not appropriate for the court to determine in advance what comprises legitimate publication. That would create, in effect, a form of licensing. The exercise of press freedoms is not justification for prior restraint on future publication. The legal system has other, more appropriate, remedies for press abuse. This does not necessarily include matters of national security. It does, however, create a very heavy burden for the government to meet in prior restraint cases (Near v. Minnesota, 1931).

During the Vietnam war, and coincident with domestic unrest, The New York Times published a series of articles based on a secret government study titled History of the United States Decision-Making Process on Vietnam Policy.

Attorney General John Mitchell sent a telegram requesting that the New York Times cease publication of articles based on the documents. He cited national security interests. When the Times ignored his request, the Department of Justice asked a United States District Court judge to halt publication of the stories. Judge Gurfein issued a temporary restraining order.

In New York Times Co. v. United States (1971) the issue before the court was whether the facts of this case satisfied the high burden of proof upon government when it argues for a prior restraint of publication. In what came to be known as the Pentagon Papers case, the court decided, in a 6 to 3 vote, for the New York Times. The court reasoned that the government failed to overcome "a heavy presumption against its constitutional validity" when arguing for restraint of publication even under the umbrella of national security (New York Times Co. v. United States, 1971). Although the court found for the press, Black, Douglas, Brennan, Stewart, White and Marshall all wrote concurring opinions. A disconcerting theme in these concurring opinions concerned the damage done by the temporary restraining orders. The Supreme Court found for the New York Times, but the government had successfully delayed publication.

Years later, the Electronic Frontier Foundation quoted the following description of a prohibition on speech:

This statute hangs over citizens 'like a sword of Damocles,' threatening them with prosecution for any speech or writing relating to computer security. That a court may ultimately vindicate such citizens 'is of little consequence--for the value of a sword of Damocles is that it hangs--not that it falls.' Arnett v. Kennedy, 416 U.S. 230, 232 (1974) (Marshall, J., dissenting).

The Foundation Cases

This section examines three foundation cases that characterize the varying levels of protection afforded to computer bulletin board systems and information services. There are a few cases that have established the unique problems associated with electronic publishing. In Elridge Daniel v. Dow Jones & Company, Inc., 1987, Daniel argued that failure to specify the currency (Canadian, not U.S. dollars) used in an on-line news report made it misleading, but Dow Jones' motion to dismiss the action was granted based on the argument from Gertz v. Robert Welch, Inc., (1974) that some falsity must be allowed to protect the greater need for press freedom. In Cubby v. Compuserve Information Service (1991), Compuserve argued that it acted as a distributor, and not a publisher, and could not be held liable for statements on its bulletin board system.

Two cases arising from the publication of an underground electronic magazine called Phrack would later

clarify the distinction between protection for large information services versus the liability of the cottage industry electronic publisher. In Steve Jackson Games v. United States (1993), the court assessed statutory damages against the Secret Service because the Secret Service did not correctly apply the statute allowing search and seizure. In a companion case, there are important parallels between United States v. Riggs and Neidorf (1991) and New York Times v. United States (1971). Craig Neidorf believed himself to be a publisher with protection equal to that of the New York Times in printing the Pentagon Papers.

Elridge Daniel v. Dow Jones & Company, Inc.

Do technological advances require rethinking legal principles that have existed for previous modalities? Do modern techniques for delivering the news change the rules applicable to its providers (Elridge Daniel v. Dow Jones & Company, Inc., 1987)?

In September 1986, Elridge Daniel, a law student and securities investor, became one of 200,000 subscribers to Dow Jones News/Retrieval. The service provides timely, accurate news that can be accessed from a subscriber's computer. Daniel asserted that he received a news report from Dow Jones that was false and misleading (Elridge Daniel v. Dow Jones & Company, Inc., 1987). The news item, datelined Calgary, referred to a transaction involving the restructuring of Husky Oil, a Canadian corporation; it did not mention that the prices referred to were in Canadian,

not United States, dollars (Elridge Daniel v. Dow Jones & Company, Inc., 1987). Elridge claimed that he relied on the prices in the report to his detriment. The basis of the complaint is that Dow Jones negligently published false and misleading statements (Elridge Daniel v. Dow Jones & Company, Inc., 1987).

Dow Jones provided a wire service and was, therefore, treated as a media defendant, entitled to the protection of the First Amendment (Elridge Daniel v. Dow Jones & Company, Inc., 1987). Daniel argued that this was a commercial transaction to which the First Amendment was inapplicable since commercial speech has been held to have a lesser degree of First Amendment protection than other speech. Daniel argued further that failure to disclose the currency used in the news report made it misleading regardless of the accuracy of the remainder of the report.

The court held that news services, whether free to the public or expensive, specialized media, such as Dow Jones' computerized data base, are instruments for the free flow of information, and should be treated as within the First Amendment's guarantee of freedom of the press (Elridge Daniel v. Dow Jones & Company, Inc., 1987). The judge cited the Supreme Court decision in *Gertz* which held that , "the First Amendment requires that we protect some falsehood in

order to protect speech that matters" (418 U.S. 341, 1974).
Dow Jones' motion for summary judgment was granted.

Cubby v. CompuServe Information Service

Subscribers to CompuServe Information Service pay a membership fee and on-line time usage fees, in return for which they have access to the thousands of information sources available on CompuServe Information Service. Subscribers may also obtain access to more than 150 special interest forums, which include electronic bulletin boards, interactive on-line conferences, and topical databases. One forum available is the Journalism Forum.

In this case, an electronic newsletter called Skuttlebut claimed that it had been defamed by a competitor known as Rumorville, which CompuServe published on its Journalism Forum (Cubby v. CompuServe, 1991). Cameron Communications, Inc., which is independent of CompuServe, contracted to manage, review, create, delete, edit, and otherwise control the contents of the Journalism Forum in accordance with editorial and technical standards and conventions of style as established by CompuServe. One publication available as part of the Journalism Forum is Rumorville USA, a daily newsletter that provides reports about broadcast journalism and journalists. CompuServe maintained that it had no notice of any complaints about the

contents of the Rumorville publication or about DFA (Cubby v. CompuServe, 1991).

In 1990, plaintiffs Cubby, Inc. and Robert Blanchard developed Skuttlebut, a computer database designed to publish and distribute electronically news and gossip in the television news and radio industries. Plaintiffs contended that, on separate occasions in April 1990, Rumorville published false and defamatory statements relating to Skuttlebut and Blanchard, and that CompuServe carried these statements in the Journalism Forum. The remarks included a suggestion that Skuttlebut gained access to information first published by Rumorville "through some back door"; that Blanchard was bounced from his previous employer, WABC; and a description of Skuttlebut as a "new start-up scam." CompuServe argued that it acted as a distributor, and not a publisher, of the statements, and could not be held liable.

CompuServe won summary judgment on all claims against it. The federal district court likened electronic bulletin boards neither to publishers nor common carriers, but to distributors of information such as newsstands, bookstores and libraries to which a lower standard of liability applies (Cubby v. CompuServe, 1991). He decided that CompuServe could not be held liable for statements published through its electronic library, because it had no reason to know what was contained there (Cubby v. CompuServe, 1991).

Operation Sun Devil

Using the bulletin board systems as a meeting place computer enthusiasts can meet, converse, and develop relationships without ever physically meeting (Krol, 1992). This is true of academicians who use computer networks and bulletin board systems to share information and debate at the forefront of their fields (Adam & Perry, 1992). It is also true of maladjusted adolescents who surf the nets looking for any information that will help them gain electronic access to machines that are supposed to be secure (Hafner & Markoff, 1991; Sterling, 1992; Stoll, 1990).

There are bulletin board systems set up specifically to exchange information on phreaking. On some of these boards could be found an electronic magazine or 'zine called Phrack. Phrack was a self-published effort run by a pre-law student, Craig Neidorf. It really would not matter if bulletin board systems dedicated to phreaking and 'zines like Phrack existed because any computer connected to a telephone line can become the unintended meeting place of hackers with bad intentions (Hafner & Markoff, 1991; Sterling, 1992; Stoll, 1990). But Phrack did exist. It was created to benefit the community of phone phreaks (Clough & Mungo, 1992; Sterling, 1992). Among those it served were members of the Legion of Doom.

With the advent of the personal computer, hacking became a growth industry. Hacking was, however, undergoing a metamorphosis. The original hackers, like Richard Stallman of MIT and the Free Software Foundation, believed computer processing power and computer software were too important to society to be subject to patent or copyright law (Levy, 1984). Hacking has come to mean something less benevolent since the term has been usurped by people with less intellectual and more ego driven motives (Clough & Mungo, 1992; Hafner & Markoff, 1991; Sterling, 1992; Stoll, 1990).

The original members of the Legion of Doom were phone freaks (Clough & Mungo, 1992; Sterling, 1992). They knew the details of the telephone system and were capable of accessing it to make untraceable calls. Just as in the Superman comic books, where the name originated, the real life members of the Legion of Doom were headed by Lex Luthor. Lex Luthor was an expert on the Central Systems for Mainframe Operations (COSMOS), an internal computer network of the telephone companies. Eventually this group picked up varying levels of expertise from computer intrusion experts who traveled in the same bulletin board circles.

The group began publishing on the bulletin board networks a 'zine called the Legion of Doom Technical Journal (Sterling, 1992). The journal was styled after the AT&T

Technical Journal and contained much the same information except that it was made to look as though it was illicit data. In the hands of phone freaks and computer intrusion specialists, the data did take on new potential.

The Legion of Doom was not the most widespread organization in the bulletin board underground, but it was the most successful at self promotion (Clough & Mungo, 1992; Sterling, 1992). With the help of magazines like Phrack, it was able to establish a presence that seemed disproportionately threatening to the police and telephone company security personnel who were trying to keep track of the digital underground (Clough & Mungo, 1992; Sterling, 1992). If anyone was ever destined to be charged with conspiracy, it would be a group of guys calling themselves The Legion of Doom who insisted upon stealing from the telephone company over telephone lines.

In 1990 a team made up of the Phoenix Secret Service office and the Arizona attorney general's office initiated a crackdown on bulletin board systems that were participating in or aiding in wire fraud of various types (Alexander, 1990; Sterling, 1992). That could mean trafficking in credit card numbers or bypassing the telephone company billing system (Rose & Wallace, 1992). Of the 300 candidate bulletin board systems, about 25 were seized in simultaneous raids around the country (Alexander, 1990; Sterling, 1992).

In most cases, the raids led to seizure of computer equipment and written documents as well as floppy disks (Alexander, 1990; Sterling, 1992). Operation Sun Devil was intended to be a message to the bulletin board system community, a message to the business community, and possibly a message to the FBI with whom the Secret Service shared some responsibility for investigating computer crime.

Steve Jackson Games

The story of Steve Jackson and his company began in the summer of 1989, when the Secret Service was contacted by a representative of Bellcore (R&D for the Regional Bell Operating Companies) who advised that there had been a theft of sensitive data from Bellcore's computer system (Alexander, 1990; Kapor, 1991). The stolen data was described as an internal, proprietary document that described the control, operation, and maintenance of Bellcore's 911 emergency system. This report led the Secret Service and the U.S. Attorney's office in Chicago into a larger investigation, concerning the national group of computer hackers called the Legion of Doom (LOD).

A member of the Legion of Doom had allegedly entered a Bellcore computer through a computer network and electronically copied the 911 document from the Bellcore computer to his own computer. The 911 document was then allegedly sent to a bulletin board system in Illinois, from

which it was downloaded by a student named Craig Neidorf and edited for and distributed in a publication named Phrack. Notably, the 911 document was not a computer program and had nothing to do with accessing a 911 system. It detailed the telephone company bureaucracy regarding customer complaints and equipment failures, among other things. There was never any basis for suspicion that Steve Jackson Games engaged in any criminal activity, or attempted to communicate, or store any illegally obtained information (Steve Jackson Games v. United States Secret Service, 1993).

Although the Secret Service wanted to seize, review, and read all electronic communications, public and private, on the Illuminati bulletin board system, the Secret Service did not advise the Judge who issued the warrant for the raid on Steve Jackson Games that the Illuminati board contained private electronic communications between users or how the disclosure of the content of these communications could relate to the investigation (Steve Jackson Games v. United States Secret Service, 1993). The court commented that it was not until June 1990 that the plaintiffs were able to determine the reasons for the March 1, 1990, seizure, and then only with the efforts of the offices of both United States Senators of the State of Texas (Steve Jackson Games v. United States Secret Service, 1993). The procedures followed by the Secret Service in this case eliminated the

safeguards contained in the statute. Lacking sufficient proof of compensatory damages, the court assessed statutory damages in favor of the plaintiffs, in the amount of \$1,000 for each plaintiff.

The First Conference on Computers, Freedom and Privacy was held in part because the hardship imposed on Steve Jackson by the Secret Service was seen by many to be chilling for computer bulletin board operators and users (Bruce Sterling, personal communication, March 9, 1993). By the time of the Third Conference on Computers, Freedom and Privacy in 1993, Steve Jackson Games had not been charged with any crime. The judge's decision against the Secret Service and the return of Jackson's equipment occurred during the third annual conference.

United States v. Riggs and Neidorf.

One of those arrested in Operation Sun Devil was the publisher of the 'zine Phrack, Craig Neidorf. In United States v. Riggs and Neidorf (739 F. Supp. 414, 1990) Judge Nicholas Bua relied in part on a Fordham Law Review article by John Gilbert (1985) to formulate his characterization of the initial indictment. Riggs and Neidorf were charged with conspiracy to commit wire fraud and receipt of stolen goods. The prosecution asserted that the Emergency 911 document had been stolen from Bellcore through a conspiracy between Riggs and Neidorf and that the electronic text file constituting

the E911 document was in fact "stolen goods" under U.S.C. Sec. 2314 (Alexander 1990; Sterling, 1992).

Craig Neidorf was assisted in his defense by an Amicus brief filed by the Electronic Frontier Foundation (Alexander 1990; Sterling, 1992). The Electronic Frontier Foundation, founded by Lotus 1-2-3 developer Mitch Kapor, was apparently motivated by a concern for First Amendment issues that seem to be poorly served in the regulation of new technologies. Amicus Electronic Frontier Foundation attacked the superseding indictment with two sets of arguments (United States v. Riggs and Neidorf, 743 F. Supp. 556, 1990). The first set refers to counts Five, Six, Eight, Nine, Ten, and Eleven and is based in the First Amendment. The second set of arguments refers to counts Two, Three, Four, and Seven and challenges the requirement that there must be a scheme to defraud under the wire fraud statute.

The First Amendment challenge by Amicus EFF relied on three cases: Smith v. Daily Mail, Landmark Communications v. Virginia and Worrell Newspapers v. Westhafer and the assertion that a statute criminalizing the publication of information can be sustained against a First Amendment attack only if it serves the highest form of government interest. Bua (United States v. Riggs and Neidorf, 1990, p. 558) disagreed by distinguishing the case as not involving " . . . a statute expressly aimed at placing a prior

restraint on speech. In addition, each of these cases involved the criminal prosecution of an individual for publishing information which had been lawfully obtained."

There is a chilling footnote, literally a footnote, in Bua's rejection of First Amendment arguments, that argues the following, "The First Amendment argument in Electronic Frontier Foundation's Amicus brief is based largely on its assertion that Neidorf 'did not participate in or know of the theft [of the E911 file] in advance.' While Neidorf is certainly free to try to prove the truth of that assertion at trial, that statement is directly contradictory to the charges in the superseding indictment" (United States v. Riggs and Neidorf, 1990, p. 559). Neidorf, who considered himself to be a publisher, received a computer text file that he edited and distributed, but he was not a computer hacker and did not possess the skills to be one (Sterling, 1992).

Bua (United States v. Riggs and Neidorf, 1990, p. 559) cited United States v. Rowlee (1990) in holding that, ". . . where an individual violates an otherwise valid criminal statute, the First Amendment does not act as a shield to preclude the prosecution of that individual simply because his criminal conduct involves speech." Bua appears to have ignored the fact that United States v. Rowlee involved prohibited speech--the advocacy of tax fraud. United States

v. Riggs and Neidorf (1990) did not involve prohibited speech. Phrack contained specifications and background data for the Emergency 911 telephone system.

The issue of whether a computer text file constitutes physical goods for the purposes of section 2314 of the National Stolen Property Act is a controversial one (Rose & Wallace, 1992; Sterling, 1992). Judge Bua dismissed this by asserting that the only difference between earlier cases and United States v. Riggs and Neidorf (1990, p. 561) is that "here the information was stored on computer." That explanation was not suitable for Chief Judge Halloway of the 10th Circuit Court in United States v. Brown (1991). In that case, pertaining to the theft of computer files, the court directly rebutted Bua's argument in United States v. Riggs and Neidorf (1990). Halloway argued that Bua's interpretation of section 2314 is erroneous "in light of the Supreme Court's focus on physical goods, wares [or] merchandise that have themselves been stolen converted or taken by fraud . . . The limitation which this places on the reach of the National Stolen Property Act is imposed by the statute itself, and must be observed" (United States v. Brown, 1991, p. 1309).

The Electronic Frontier Foundation's Mike Godwin characterized it this way, "Bua's error had to do with whether Neidorf had committed theft, not whether Neidorf was

a publisher. United States v. Brown did not criticize the part of Bua's opinion having to do with the First Amendment --what it criticized was the part having to do with theft" (Mike Godwin, E-Mail, personal communication, June 24, 1993).

Bua also cited United States v. Morison (1988, p. 1068) which held: "We do not think that the First Amendment offers asylum . . . merely because the transmittal was to a member of the press." That argument would be sound if Riggs had put forth the First Amendment argument since it was Riggs, like Morison, who illicitly obtained information. But the Morison case did not involve prosecution of the editor at Janes Defence Weekly from whom Morison was trying to obtain a permanent position. The Morison case does not apply to Neidorf in his role as publisher of Phrack. Judge Bua was not about to allow the First Amendment to cloud what seemed to be a pretty clear wire fraud conspiracy. But United States v. Riggs and Neidorf was more, or perhaps less, than it appeared to be.

Defense attorney Sheldon T. Zenner was eventually able to dismantle the government's case against Neidorf on the basis of two points (Alexander 1990; Sterling, 1992). Neidorf was not a hacker in any sense and he was not a member of the Legion of Doom. This became apparent when Legion of Doom members were being questioned. They

considered Neidorf the publisher and editor of Phrack. The alleged conspirators, Prophet and Knight Lightning (Riggs and Neidorf), had never physically met and did not know one another's names. This undermined the grand conspiracy argument and set the stage for the final blow.

Bellcore had calculated a value of almost \$80,000 for the Emergency 911 document. Zenner, while questioning a prosecution witness, made it evident that multiple sources, including Bellcore itself, were providing highly technical information on the Emergency 911 service to the public for a very modest fee (Alexander 1990; Sterling, 1992). The \$80,000 proprietary information that the Legion of Doom had obtained concerning the E911 system was available from the phone company as Bellcore Technical Reference Document TR-TSY-000350 valued at less than \$20 and was available from Bellcore's toll-free 800 number. In fact, a much more detailed account of the E911 system was available in a special issue of a trade journal, Telephone Engineering & Management, entitled "Update on 911." The bi-weekly journal was available for a \$27 per year subscription. The \$80,000 trade secrets were nearly valueless. All charges against Craig Neidorf were dropped but he was left with more than \$100,000 in legal fees.

The treatment of this case as a wire fraud conspiracy was an effort to differentiate it from its First Amendment

roots (Sterling, 1992). Although Amicus EFF attempted to establish the First Amendment principles of the case, it was the prosecution's intent to establish that wire fraud and theft of data had occurred. There are clear parallels between United States v. Riggs and Neidorf and New York Times v. United States (403 U.S. 713). Bua was able to dismiss First Amendment arguments because of the misunderstood role of Neidorf as a bulletin board system operator, a misunderstanding that dates back to Gilbert (54 Fordham L. Rev. 439). Neidorf believed himself to be, simply, a publisher. This equates to the role of the New York Times in printing the Pentagon Papers. But New York Times v. United States may have been little comfort to Neidorf and Phrack.

In Justice Harlan's dissent in New York Times v. United States, he raises a point directly applicable to U. S. v. Riggs and Neidorf. What right does a publisher have to print information from sources that are known to have been stolen? The New York Times was not shut down. The publisher of the New York Times was not arrested. "Federal prosecutors maintain to this day that if Ellsberg could be successfully prosecuted, and that if a reporter knew about the planned copying before it happened, the reporter could be prosecuted too" (Mike Godwin, E-Mail, personal communication, June 24, 1993).

Eric Lieberman, a New York attorney who worked on the Pentagon Papers case, put it this way,

If systems operators are to be held liable, what kind of chilling effect is this going to have upon this growing means of communication and interchange of information? Are we to require them to be censors of what appears on bulletin boards and in electronic publications? [a computer is much more than evidence to be confiscated] It is the means of interchange of expression . . . It is a newspaper or a magazine or a bookstore (IEEE, 1991, pp. 157-158).

About a year after the Phrack case, many of the principles were involved in a reunion of sorts. The Computer Professionals for Social Responsibility with funding from Electronic Frontier Foundation, IEEE, and many others sponsored the First Conference on Computers, Freedom and Privacy in Burlingame, CA. It was in this environment that professor Laurence H. Tribe of Harvard University proposed a Constitutional Amendment during the keynote address:

This Constitution's protection for the freedoms of speech, press, petition and assembly and its protections against unreasonable searches and seizures and the deprivation of life, liberty or property without due process of law, shall be construed as fully applicable without regard to the technological method or medium through which information content is generated (Tribe, 1991, p. 12).

Tribe's proposal is in stark contrast to the Fordham Law Review article mentioned by Bua in his decision. In that article, Gilbert (1985, p. 29) stated that "Criminal statutes should punish operators who knowingly permit the

posting of wrongful messages, knowingly retain wrongful messages or intentionally ignore the existence of wrongful messages on their bulletin boards."

The social networking of this conference gave rise to science fiction writer, temporarily turned journalist, Bruce Sterling's observation that this conference would come to mark a turning point in the role of the First Amendment in cyberspace. Sterling was involved because he and Steve Jackson were friends from Austin. Sterling later commented: "When I saw my friend's livelihood carted off by the Secret Service, I couldn't just stand there and be a witness. Maybe things will calm down and I'll go back to writing fiction someday. Soon, I hope" (Bruce Sterling, personal communication, March 9, 1993).

CHAPTER 5

Summary and Implications

The United States Constitution may seem antiquated in the Information Age, but it is based on enduring principles. Interpreting the Bill of Rights means reading it in an evolving and dynamic way or the values it embodies will lose the protection they once enjoyed (Tribe, 1991). Adherence to the original values requires flexibility in interpretation. For the Constitution to protect people rather than places it must be seen as technologically independent.

The legal landscape of the electronic frontier is of concern to everyone, not just policy makers and industry lawyers. The cases outlined earlier illustrate a growing distinction between the technology as a carrier of information and the system operators as editors with varying levels of control. There are serious problems associated with shifting media consumers suddenly into the role of media producers. According to Jonathen Rosenoer (E-Mail, personal communication, August 3, 1993), the publisher of the electronic law journal CyberLaw:

There will be the problem of the owners of the bulletin board system and on-line services being sued--a very expensive proposition. Free speech protections have been won by large media operations with substantial backing. My fear is that the owners of smaller services will not be able to stand up for themselves and for us.

The bulletin board system phenomenon might expand from the tens of thousands to the hundreds of thousands, becoming small group discussions on the electronic frontier.

Although relatively few people currently use the bulletin boards to communicate, they may supplant traditional media as the most convenient and cost effective way to communicate with a large audience (Naughton, 1992). Felsenstein (1993) argued that bulletin board systems and conferencing systems are, in fact, harbingers of the rebirth of The Agora. Cliff Stoll (E-Mail, personal communication, August 1, 1993), the author of the non-fiction book on computer hacking, The Cuckoo's Egg, and advocate for on-line communities argued:

Free speech can retain traditional protections only if people work for their (sic) defense now. Indeed, it's likely that with more avenues of publication, it'll be easier to get your own word out. Common Carrier [status] makes a Bulletin Board System less liable for content based lawsuits and libel lawsuits, but opens the door for governmental regulation, taxation, and oversight. The level of public understanding concerning new communication technologies will influence the freedoms allowed in the use of these technologies

According to the author of the bulletin board operator's legal guide SYSLAW, "The real power for on-line services is their ability to take advantage of the far greater freedom from content responsibility enjoyed by such distributors of public speech (rather than "presses") as book sellers and magazine distributors. A freedom freely granted when Comuserve was freed from being subject to

legal action for mere distribution of allegedly defamatory content in Cubby v. Compuserve Information Service" (Lance Rose, E-Mail, personal communication, June 24, 1993).

Cliff Figallo was the on-line representative of the Electronic Frontier Foundation and former director of the WELL. He believes the marketplace of ideas best serves the bulletin board community:

You won't see any laws requiring Common Carrier behavior on the parts of information providers. Only for the infrastructure providers. Bulletin board systems and distinct systems such as AOL will still have the freedom to define their own restrictions on speech as they see fit. Users are free to choose systems that allow the amount of freedom of speech that they need or desire. The phone companies and cable companies, on the other hand, should provide the means for the information providers to present their products and should not be controlling content in any way (Cliff Figallo, E-Mail, personal communication, August 2, 1993).

Naughton (1992) argued that cyberspace does not meet the requirements to be a public forum in any traditional sense, but that future cases may be determined by a more sophisticated interpretation of what may constitute a public forum. He also noted that bulletin board operators should be held criminally liable for material posted on their boards only if they knowingly allowed illegal, obscene or defamatory messages to be posted.

Katsh (1989, 1991) contended that the merging of computers and communication will fundamentally change the nature of communication in the United States and therefore

the associated First Amendment protections. He further argued that these changes will not be limited to First Amendment doctrine, but will influence the nature of law in modern society.

Lively (1992) contended that the United States Supreme Court has increasingly discerned First Amendment distinctions based on the medium of distribution rather than the content itself. He states that identical content will enjoy more or less protection based the manner in which it is delivered. This follows from the scarcity arguments that purported to protect access.

Dowd and Herbeck (1993) argued that "flaming" and "the white corpuscle effect" substitute more speech for censorship. Specifically, they argued that the Internet exerts no organized censorship of content on its bulletin board system or conferences. This is not strictly true. Certainly there is an effort to create gross categories within which anything seems to be acceptable, but within the categories there is great pressure to follow the bulletin board system guidelines for content. It is important to remember that a bulletin board system always has a system operator who makes decisions about content that may not be apparent to the users. Further, there is pressure from users and operators to restrict the content of boards. Dowd and Herbeck (1993) argued that the Internet has a policy of

no censorship, but the structure of the Internet is too diffuse to have any meaningful policy on anything (Rickard, 1993).

Although Dowd and Herbeck (1993, p.17) argued against censorship, they also stated that ". . . the evil in allowing bulletin board system operators to act as the arbiters of offensive speech becomes self evident." They suggested that the First Amendment protection of speech is so important that bulletin board system operators should not be allowed to make content decisions. This may be a serious error. The bulletin board system is not simply a medium of distribution for prepackaged content. A bulletin board system operator may have, as a primary goal, the desire to control the content of his or her system. This is not only desirable, but potentially significant in a cultural sense.

System operator control of content is not prior restraint as Dowd and Herbeck (1993) suggested since prior restraint case law is directed at government (Teeter & Le Duc, 1992). Prior restraint would exist in government regulation of a system operator's editorial policies. Dowd and Herbeck are hampered by their limited perception of the use of bulletin board systems. As Rose and Wallace (1992) noted, since a bulletin board system can be different things to different people, the common carrier solution is necessarily limited in its scope.

The fact that bulletin board systems are intended by their operators to be more than common carriers is implicit in the individual's desire to run a system. For example:

If owners of bulletin board systems cannot control content, then they will find themselves publishing material they find abhorrent. For example, a bulletin board system for jewish (sic) issues may find that it cannot prevent the posting of anti-semitic (sic) literature. You can see related problems when television stations hesitate to put certain pieces on the air for fear that they will have to give equal time to opposing view points (sic). On the other hand, you have likely incidents analagous (sic) to a record store owner with thousands of records being convicted for stocking one record later judged to be obscene (Jonathen Rosenoer, E-Mail, personal communication, August 3, 1993).

It has long been accepted that the First Amendment applies to technologies other than the printing press. It has also been accepted that electronic media receive different treatment under the First Amendment than print media. The desirability of government investment and cooperation in the establishment and nurturing of the electronic media as well as the perception of spectrum scarcity in radio resulted in a regulatory labyrinth that is arguably an infringement of the First Amendment (Emord, 1991).

The rationale behind this regulatory environment conceals a constitutional leap of faith. The desirability of new communication technologies and the potential dangers of their unbridled adoption result in an alliance between

government and media businesses to define regulatory standards for the new media rather than pursue a turf war over application of the print model of the First Amendment to new media technologies (Emord, 1991). Civil Libertarians argue that First Amendment protection is the default state for new communication technologies. A point of departure for this debate continues to be whether the courts will apply the First Amendment standard for print media or rationalize a medium-specific exception. According to Cliff Figallo (E-Mail, personal communication, August 2, 1993):

The fact that so many people will be 'speaking' in privately-owned forums, subject to local restrictions on language and subject matter, complicates things a bit. But the Constitution restricts the Federal Government from making laws restricting free speech and this will not change. Some legal scholars such as Lawrence Tribe have suggested that a new amendment be added to specify that all rights shall be extended to new media, but most others believe that the current laws adequately cover free expression in digital media.

As print media are supplanted by new electronic communication technologies, so the print model of First Amendment protection may be subjugated in importance to the regulation of more popular media forms. Protected speech may become neglected speech. As Figallo (E-Mail, personal communication, August 2, 1993) noted, some scholars believe that there is no constitutional basis for denying full protection to electronic media. The argument goes as follows, "The Supreme Court cases dealing with broadcasting

regulation lay out the Constitutional rationale for regulating broadcast media. That regulation is medium-specific--it doesn't apply in contexts that have nothing to do with broadcasting. Which is to say, it doesn't apply to on-line forums like the WELL or Usenet. The First Amendment is the default setting" (Mike Godwin, E-Mail, personal communication, June 24, 1993).

Others have argued that regulation is a habit in search of a rationale (Emord, 1991; Huber, 1993; Kapor, 1993). A small, but significant group of scholars believe that only a technology independent application of full First Amendment protections meets the spirit of constitutional law (Tribe, 1991; Emord, 1991). That is why Tribe recommended a constitutional amendment to apply full First Amendment protections in the electronic domain. If the First Amendment is perceived as dependent on a particular technology, then new technologies will never meet the letter of the law until sufficient legal precedent exists to extend First Amendment protection to them (Huber, 1993). This allows the courts to provide ad hoc definitions of the press until government and industry can negotiate a regulatory structure (Emord, 1991).

United States v. Riggs and Neidorf (1990) has received considerable popular attention from the community of bulletin board system users and operators since Operation

Sun Devil took place on May 8, 1990. Legal scholars have tended to rely more heavily on two other cases, Cubby v. Compuserve (1991) and Steve Jackson Games v. the U. S. Secret Service (1993). However, for the reasons outlined above, United States v. Riggs and Neidorf (1990) offers a glimpse at a problem that is not addressed in the other cases. The question is: What protection will be afforded the non-traditional publisher in a communication marketplace that may become increasingly democratized through the diffusion of publishing tools to the masses? Cubby and Steve Jackson Games were, ultimately, businesses and as such represented commercial issues. Phrack and Craig Neidorf were little more than voices in the electronic wilderness and represented nothing other than free speech.

Bulletin board systems are enjoying a phenomenal growth in popularity while the courts have yet to establish clear First Amendment protection for all forms of electronic publication. The danger for the future resides in the contradictory roles played by system operators. One cannot be protected by common carrier status while exercising editorial control over content. A system operator who does prefer to control content on his or her bulletin board cannot hope to control all content that passes through the board. User contracts are the safest avenue for system operators, but they imply operator intervention regarding

questionable content. Not all system operators will be comfortable with that role.

It has yet to be determined how legal standards may be applied to different bulletin board systems depending upon the intent of the operator. Perhaps the emphasis should be on the content of speech and not the medium of its publication? The only certainty is that amateurs or entrepreneurs who choose to test the waters and try surfing the Net will be impeded less by the technology than by the liabilities associated with being the first on the block to be sued. The First Amendment, if it is applied to these cases, is likely to receive a heavy workout in the coming years.

It has been the purpose of this thesis to point out the contradictions in the various court cases and theoretical arguments that have already been established. The new communication technologies will not wait for these contradictions to be resolved. The legal landscape for future First Amendment cases will be left to policy makers and industry lobbying groups unless the general public becomes more aware of the potential of these new media. The disparity in opinion between government, industry, and civil liberties groups indicates that these issues are far from settled. Further, it suggests that, rather than extending the print model to computer mediated communication, the

courts may find cause to limit such protections when applied to non-traditional publishers.

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APPENDICES

Appendix A

The following is an example on-line session with the original Computer Bulletin Board System created by Ward Christensen and Randy Seus in 1978.

```
CBBS(R) 4.0.3b
05/08/93 20:57:39
Welcome updated 09/12/92; CBBS(R)/Chicago (312) 545-8086
YOU CAN SKIP TO LOGON by hitting ctl-K - view WELCOME later
with W command!
```

```
** WELCOME TO WARD AND RANDY'S CBBS(R)
** (COMPUTERIZED BULLETIN BOARD SYSTEM (R))
** (In operation since 2/16/78 except for a few
"outages"...) (Therefore, the worlds first, and oldest
micro based BBS)
```

```
~~~~~
CBBS is a MESSAGE-ONLY system catering to advanced
hobbyists, etc (see details in the (B)ulletin)
----> PRESS "S" TO STOP OUTPUT, "S" TO START IT AGAIN <----
      (NO DATA WILL BE LOST)
```

```
----END OF WELCOME----
```

```
***** In case you're new to CBBS, be aware, YOU ARE
LOOKING AT HISTORY! This BBS is the worlds first, and you
can think of it as now being "preserved" for you to
participate in.
```

Want to know what hardware makes up the system.?y
The hardware consists of: (as of 2/87)

- PC clone mother board 640K
- V-20 to emulate 8080
- 360K floppy
- ST225 20M hard disk (yes, barely being used)
- Clone CGA adapter
- Zenith mono monitor
- Intel above-board-PC with 1.5M memory, serial, parallel,
clock.
- Everex 20M cartridge tape drive
- US Robotics Courier 2400 modem
- One State of Illinois "CBBS" license plate

... All artistically mounted on a 2' x 4' piece of particle
board -NO CASE.

Press ^C to skip the following "history" of what CBBS USED
to run on:

North Star Horizon S-100 mainframe w/4MHz Z-80, 64K RAM,
5M hard disk,

HS4IO serial board

2400 baud modem (rotating ARK (Paradyne) and Courier
(USRobotics))

Scitronics clock board

05/08/93 21:02:16

Connect time 5 minutes

Char counts: 61 typed by you, 13347 typed by system.
from Ward and Randy, thanks for calling, JOE

..Hy

NO CARRIER

Appendix B

The following is the original announcement for the Electronic Frontier Foundation's conference on the Whole Earth 'Lectronic Link (WELL):

OK (type a command or type opt for Options): r 1

Topic 1: Welcome

By: Mitch (mkapor) on Sat, Jul 7, '90 158 responses so far

Welcome to the home of the Electronic Frontier Foundation. Watch this space for details.

158 responses total.

Topic 1: Welcome

1: Mitch (mkapor) Mon, Jul 9, '90 (20:18) 5 lines

Well, this is what Barlow and I have been up to. Thanks for your patience while we worked things out.

We would be interested in your advice, support, and criticism. Also feel free just to check in and say hi in this topic.