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Political Advocacy on the Web: Issue Networks in Online Debate Over the USA Patriot Act

Margot Leigh Emery
University of Tennessee - Knoxville

To the Graduate Council:

I am submitting herewith a dissertation written by Margot Leigh Emery entitled "Political Advocacy on the Web: Issue Networks in Online Debate Over the USA Patriot Act." I have examined the final electronic copy of this dissertation for form and content and recommend that it be accepted in partial fulfillment of the requirements for the degree of Doctor of Philosophy, with a major in Communication and Information.

<div align="right">

Benjamin J. Bates, Major Professor

</div>

We have read this dissertation and recommend its acceptance:

William L. Seaver, Sally J. McMillan, Gretchen Whitney

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Vice Provost and Dean of the Graduate School

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(Original signatures are on file with official student records.)

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Political Advocacy on the Web: Issue Networks in Online Debate Over the USA Patriot Act

A Dissertation Presented for
the Doctor of Philosophy
Degree
The University of Tennessee, Knoxville

Margot Leigh Emery
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ABSTRACT

This dissertation examines how people and organizations used the World Wide Web to discuss and debate a public policy in 2005, at a point of time when the Internet was viewed as a maturing medium for communication. Combining descriptive and quantitative frame analyses with an issue network analysis, the study evaluated the frames apparent in discourse concerning two key sections of the USA Patriot Act, while the issue network analysis probed hypertext linkages among Web pages where discussion was occurring. Sections 214 and 215 of the USA Patriot Act provided a contentious national issue with multiple stakeholders presumed to be attempting to frame issues connected to the two sections. The focus on two sections allowed frame and issue network contrasts to be made.

The study sought evidence of an Internet effect to determine whether the Web, through the way people were using it, was having a polarizing, synthesizing, or fragmentizing effect on discussion and debate. Frame overlap and hypertext linkage patterns among actors in the issue networks indicated an overall tendency toward synthesis.

The study also probed the degree to which there is a joining, or symbiosis, of Web content and structure, in part evidenced by whether patterns exist that like-minded groups are coming together to form online community through hypertext linkages. Evidence was found to support this conclusion among Web pages in several Internet domains, although questions remain about linking patterns among blogs due to limitations of the software used in the study.

Organizational Web sites on average used a similar number of frames compared to other Web page types, including blogs. The organizational Web pages were found to be briefer in how they discussed issues, however.

The study contributes to theory by offering the first known empirical study of online community formation and issue advocacy on a matter of public policy and through its finding of a linkage between Web content and Web structure. Methodologically, the study presents a flexible mixed-methods model of descriptive and quantitative approaches that appears excellently suited for Internet studies. The dissertation's use of fuzzy clustering and discriminant analysis offer important improvements over existing approaches in factor-based frame analysis and frame mapping techniques.

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CHAPTER I
INTRODUCTION

By 2005, the Internet existed as a viable and maturing medium for political discourse. Much had been made of the network's role during the previous year, when it aided information dissemination by candidates in the presidential election campaigns and led, through the blogosphere, to rapid-fire challenges of campaign news decisions by CBS and ABC, as well as simmering debate over candidate John Kerry's war record (Adamic & Glance, 2005; Ceaser & Busch, 2005; Johnson, 2006; Trippi, 2004).

While use of the Internet during the national elections of 2004, 2000, and 1998 is well documented, less is known about how the network is used for the discussion and debate of public issues (Huey, 2005; Park, Thelwall & Kluver, 2005). Questions exist concerning the value of the Internet for political discourse. Is the network, for example, facilitating the formation of online communities that coalesce around public issues for discussion and debate or is it instead serving to facilitate issue demagoguery, where one-sided arguments are made with little interest or regard for differing views? Are issue advocacy organizations finding the Internet central to their operations? And are these organizations, in turn, viewed as key players in online debate over the issues they hold interest in? Answers to the questions are important because they hold consequence both to the continuing evolution of the Internet as a medium for non-commercial purposes such as civic discourse, and to the flow of information in our nation's participatory democracy. While theorists have speculated on the Internet's effects on these areas, few empirical studies have addressed the issues.

One active policy debate in 2005 concerned key sections of the controversial USA Patriot Act (H. Res. 3162, 2001), which were scheduled to expire on December 31, 2005, unless Congress acted to renew them. Review of the act, known formally as Uniting and Strengthening America by Providing Appropriate Tools Required to Intercept and Obstruct Terrorism Act of 2001, appeared to offer a window of opportunity through which to probe the Internet's facility for issue advocacy, as individuals and organizations were expected to weigh in on whether contested sections of the USA Patriot Act should be renewed, amended, or allowed to expire. This dissertation examines Web-based discourse and hypertext linking patterns among Web sites communicating about the USA Patriot Act during the run-up to the sunsets, to determine the value that individuals and organizations were placing on the Internet for political discourse and to examine how they were fostering and framing a public issue of great divisiveness (Varon, 2003).

Futurists writing in the Internet's infancy saw the potentials of information and communication technologies to enhance citizen engagement in democratic processes. Marvick (1970) predicted an uptake effect for the technology, through which marginally involved citizens would become more engaged in political processes and feel rewarded by that involvement. Barber (1984) and Dahl (1989) argued that gaps in information access were a far more serious threat to democracy than inequalities in wealth and economic position. Information technologies, Dahl predicted, could provide important remedies for political inequality by making political information more readily accessible. The communitarian theroist Amitai Etzioni (1993) expressed similar views, contending that information technology possessed the ability to strengthen communities. Dyson (1998) believed that the Internet would engage a growing number of people in online

political exchange and communication, and that the feeling of empowerment they would gain through the participation would accelerate online activity and involvement in other areas of their lives, as well. The Internet's power, Dyson contended, lies in enabling people to accomplish their own goals in collaboration with others. "(I)t's a way for people to organize themselves. It gives them power for themselves, rather than over others" (Dyson, 1998, p. 48).

Despite these optimistic assessments, today as the Internet moves further into its third decade, the actual impacts of the network on political behavior are not well understood. One can cite examples of uses and impacts, of course. It has become common for candidates for political office to launch Web sites and use electronic mailing lists to communicate with their base (Johnson, 2006). Candidates for national office in the 2004 election cycle prominently added web logs, or blogs, to their repertoire (Adamic & Glance, 2005; Ceaser & Busch, 2005; Johnson, 2006; Trippi, 2004), and, in 2006, presidential hopefuls were testing the water in online video-sharing at the Web site YouTube and the virtual world Second Life (On the Media, 2006a, 2006b). But beyond those activities, questions remain about whether and how the Internet has developed into a medium and tool for political issue advocacy.

The topic is important not only for understanding of the conduct of politics in the early 21st century, but also for what it may reveal about social understanding, use, and shaping of a complex communication system. From a structural standpoint, the interplay of politics and the Internet occurs in an ecology, or holistic environment, of old and new media forms that are undergoing profound social, technical, and cultural transformation, with some theorists contending that the Internet and its technologies facilitate a new era

in which networks are the central organizing metaphor for individual, social, economic, and political life (Barney, 2004; Castells, 2001a, Dimagio, 2001). How the Internet is being used to foster and frame discussion of political issues and debates may signal emergent changes in the network's continued development, use, and significance in society and in the conduct of politics in the twenty-first century.

Questions about the Internet's use for political discussion connect to another, potentially more important issue, as well. As the nation and world move further into an era of finite natural resources, divisive issues of morality, and volatile international relations, events on par with the devastating attacks of September 11, 2001, may occur. Whether it is a pandemic, an attack involving fissile nuclear matter, or a completely unforeseen development, new challenges have the potential to unfold as quickly as the attacks of September 11th and with as stunningly widespread consequences. How the United States as a society finds balance on complex, divisive issues today holds bearing on the nation's ability to respond to the unknowable challenges ahead and find unity among competing interests on issues that may threaten to divide us.

From a technological standpoint, the Internet is capable of functioning as a channel for debate and communication, with particular strengths in overcoming problems of scale in a large democracy and for creating forums that are not limited by physical proximity (Barber, 1984; Bimber, 2003). Those very attributes, along with the Internet's unique capabilities to support interactive and instant communication, could make the network a central if not vital medium and channel of communication for non-commercial purposes, during times of peace and stability and during periods of national and global crisis. Whether the Internet realizes that potential, however, depends a great deal on the

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value that individuals and organizations are finding in the Internet today for purposes of political discourse: their social shaping of the technology (Mackay & Gillespie, 1992; MacKenzie & Wajcman, 1985; Standage, 1998).

Through its examination of online communication in 2005 about the USA Patriot Act, this dissertation seeks insight into the value that people and organizations are placing on the Internet as a channel and medium for non-commercial, civic-oriented discourse. A core question guiding this study is whether there is evidence of an Internet effect, that is to say, whether the Web, through its technological capabilities, is being used to polarize, fragment, or synthesize views on issues of public interest (Bimber, 1998). Another fundamental question guiding the dissertation is whether there is a joining, or symbiosis, of Web content and structure as evidenced through hypertext linking patterns and the content that resides at Web sites: do patterns exist among the links that indicate like-minded groups are coming together to form online community, or do the links indicate other behavior?

On the Web, content and the computer code that underlies it are inextricably bound together. Through the interlinked nature of its content, the Web simultaneously facilitates and reveals a networked society (Castells, 2001b). Hypertext links made possible by computer code connect one Web site's content to another, forming bridges of content that can connect like-minded individuals and organizations or can be used in other ways, such as to challenge the views expressed by a rival site (Govcom.org 1999/2000). The networks the Web facilitates are simultaneously social—the human communication that creates and occurs as content—and technical, the computer hypertext code that forms and links Web sites. With this duality in mind, Castells observed that

cultural expression becomes patterned "around a kaleidoscope of a global, electronic hypertext" (Castells, 2001b, p. 169).

The interplay of content and Web structure is significant to this study because questions exist about whether the structural dimensions of the Internet are serving to help polarize combatants in political debate or whether, through online exchange and hypertext links, there is evidence that individuals and groups are exploring common ground and attempting to build consensus—to build community, in Putnam's terminology (1995), or social networks, in Wellman's (2001). Those questions are part of an ongoing debate over the Internet's potential and real impacts upon the political process in the United States (Barney, 2004; Farrall & Delli Carpini, 2004).

Objectives

This study explores dimensions of online community formation and activism and social shaping of technology by examining how individuals and organizations are communicating about a contentious, politically charged piece of federal legislation. By probing how individuals and groups are using the Internet to foster and frame discussion and debate over key sections of the USA Patriot Act, the study seeks insight into the Internet's impact upon community formation and its use and value for political communication in the United States.

The two sections of the USA Patriot Act under examination are Sections 214 and 215. Section 214 allows use of a pen register or trap and trace devices to record originating phone numbers of all incoming telephone calls in international terrorism or spy investigations. Section 215 authorizes federal officials to obtain tangible items such

as business records, including those from libraries and bookstores, for foreign

intelligence and international terrorism investigations. Each section has been challenged

by critics as being, among other things, anti-democratic, overly broad, and a threat to

personal liberty. Yet other, unique, issues are tied to each section. In this way, there are

overlapping issues and distinct ones associated with Section 214 and 215, and the variety

of perspectives the two sections encompass is expected to draw a varied range of

individuals and organizations into Web-based discourse concerning the USA Patriot Act.

To analyze how individuals and groups are using the Internet to communicate

about the USA Patriot Act, this study integrates two theoretical perspectives: frame

analysis and a growing vein of inquiry within the broad field of social network analysis

that is known as issue network analysis (Rogers, 2005). Frame analysis identifies

particular positions, or frames, that allow for the discussion and interpretation of events

(Miller and Riechert, 2001). Issue network analysis builds models of Web structure by

detecting and measuring hypertext links between Web sites clustered on specific issues.

The hypertext links that individuals and organizations create between Web sites

offer a measure by which to gauge online communication and community formation on

divisive issues. Through its issue network analysis, this dissertation assesses the value

people and organizations are placing on the Internet as a channel and medium for

communication on matters of public interest. Through descriptive and quantitative frame

analysis, the study probes dimensions of online discourse concerning key sections of the

USA Patriot Act, including the extent to which overlap appears to exist among the frames

and whether such discourse appears to be fragmenting, polarizing, or synthesizing debate.

The combination of network and frame analysis allows consideration of how the issues

further relate. Used in combination, these theoretical and methodological approaches represent a multiple-method effort to pinpoint dimensions of social shaping of technology in action on a complex, rapidly evolving, technological medium.

Summary

This dissertation addresses how individuals and organizations in 2005 were using the World Wide Web to communicate views about two key sections of the USA Patriot Act. Integrating two theoretical perspectives, frame analysis and issue network analysis, it explores how people and groups were fostering and framing discourse about the USA Patriot Act and engaging in online community formation. Results of the study are expected to illuminate the value being placed on the Internet as a medium for discussion and debate of public issues; the extent to which the Web is being used for information flow in a participatory democracy; and the potential of the Internet to function as a vital, if not central, channel of communication during nationally divisive periods or events.

CHAPTER II
THEORETICAL FOUNDATIONS

This dissertation examines how people and organizations are using the Internet for discussion and debate of public issues. Their usage is understood as a combination of content/message and its communication, which on the Internet can be seen as a network rather than a linear process, as with traditional mass media. This calls for a combination of perspectives and, for that reason, the dissertation is grounded in two theories. Frame analysis informs the study's research of how individuals and organizations selectively perceive politically divisive issues, such as the USA Patriot Act, create shared understanding, and communicate their views. Through frame analysis, it is possible to identify and classify those views and, through that classification, explore to what degree the World Wide Web may be having an effect on political discourse. The effect may be polarizing in nature, pushing people to extremist views; it may be fragmentizing, creating divides among people; or it may have a synthesizing effect, leading to new partnerships and coalitions—in essence, creating community.

Issue network analysis, the second theoretical perspective that informs this study, offers a corollary measure of the same Internet effects through the link analysis models it constructs of Web sites and their linking behavior. The models facilitate comparisons of discourse about Section 214 and Section 215 while also revealing the core and peripheral Web sites engaged in Web-based discourse focused on the two USA Patriot Act sections. In this way, the dissertation's question of whether there is a connection between Web content and Web structure can be explored, and key individuals and organizations

involved in issue advocacy associated with the USA Patriot Act can be identified, and their interrelationships, as gauged by Web site links, assessed.

Each of these theoretical perspectives on its own looks at only one dimension of communication on the Web. Used in combination, they offer a deeper understanding of the issues under investigation in this dissertation.

The study's theoretical basis can best be understood by reviewing the foundations of each of the two theoretical perspectives, their development, and applicability to Internet-based discourse over contentious issues. The sections that follow address those areas, first with respect to frame analysis and then to issue network analysis and the broader field of inquiry in which it derives, which is social network analysis. The chapter concludes with a discussion of how the dissertation integrates the two perspectives in its investigation of Web-based discourse and link behavior associated with the USA Patriot Act.

Frame Analysis

Origins and Development of Framing and Frame Analysis

The concept of framing, though variously defined, is generally accepted to represent the selection of some aspects of a perceived reality and communication of that selection, or frame, in a way that makes it more salient to the intended audience (Entman, 1993). While the method of detecting frames is not agreed upon, one of the best known of researchers explaining how to locate frames is Entman (1991, 1993), who observes that a generally effective approach to detect a frame is to look for recurring words or phrases and words that hold special cultural significance.

Through their patterns of selection, emphasis, and exclusion, frames help to organize discourse. Through framing political issues, "social actors define what is and what is not relevant to the issue" (Ryan, 2001, p. 175). Generally frames are accepted to be socially created, arising through shared perspectives, just as the Web structures, as measured through hypertext linking behavior, are socially created. In these ways, frames and frame analysis are fundamental tools to this dissertation's probing of how individuals and organizations view key sections of the USA Patriot Act and communicate about them using the World Wide Web.

Although framing as a theoretical perspective developed largely in the 20th century, the concept reaches back at least to the ancient Greeks. In Book VII of The Republic, Plato (360 B.C./2003) describes Socrates' Grotto and recounts how prisoners seeing shadows against a wall assumed that the shadows revealed truth. Yet on their release, the prisoners were faced with multiple versions of the actual truth. Plato suggests that senses cause differences in the perception of truth, thus what one person believes to be common sense can seem illogical to another. Perceptions can have differential effects, as well, allowing one person to accept conditions as they are, while motivating another to investigate and press for change. For these reasons, framing as a theoretical and methodological approach has gained popularity for the study of political conflict, including research of the role of media as a "platform to promote social change and secure social justice" (Ryan, 2001, p. 176).

Framing in contemporary social science is rooted in the work of Sigmund Freud and his psychoanalytic theory, which used careful listening and considered the role of the unconscious and influence of psychological forces in shaping observable behavior.

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Freud's psychoanalytic theory was a key force in the development of numerous fields of inquiry in social science, among them the Chicago School led by Mead, Dewey, and Park (Rogers, 1994); learning theory, Hull (Hull et al., 1940); propaganda analysis, Lasswell (1927/1938/1971); persuasion research, Hovland (1951; Hovland, Janis & Kelley, 1953); and critical theory, Fromm (1941, 1955) and Marcuse (1955, 1964).

Of significance to framing, Freud also served as the intellectual forebear of the Palo Alto Group and its research into interactional communication. Led by Gregory Bateson (1955, 1972a), the group probed how an individual's communication relationships with others served as a means of understanding individual behavior.

The conceptualization of individual behavior shaped by exchanges with others led to a major paradigmatic shift in clinical research in the 1950s and '60s, and the work of the Palo Alto group was an important part of the process (Rogers, 1994). The conceptualization is also key to this dissertation's assumption that parallels can be drawn between Web content and Web linking behavior in the issue networks that form surrounding Sections 214 and 215 of the USA Patriot Act. The dissertation assumes there is meaning in those hypertext links and postulates that they may reflect a self-organizing network of like-minded individuals.

In "A theory of play and phantasy," Bateson (1955/1972b) used the terms frame and context to describe psychological concepts analogous to picture frames and mathematical sets. He suggested a psychological frame "is (or delimits) a class or set of messages (or meaningful actions)…the frame merely assists the mind in understanding the contained messages by reminding the thinker that the messages are mutually relevant and the messages outside the frame may be ignored" (Bateson, 1972b, pp. 186-187).

Building on Bateson's use of the term frame, Erving Goffman applied the concept to human behavior in 1974 in his landmark text, *Frame Analysis: An Essay on the Organization of Experience*. Goffman wrote that the approach of frame analysis can be used to provide a systematic account of how humans use expectations to make sense of everyday life.

While a specific frame can be fluid and subject to change as a person interacts with others, Goffman (1974) observed that, in general, people tend to cling firmly to a dominant or primary reality, one that can be held so fixedly that individuals tend to ignore information that challenges their ideas and can ultimately become virtual prisoners of their ideas. Termed master frames, these conceptualizations represent a dominant position of interpretation or meaning held firmly by an individual or group, such as the activists and social movement organizations that are the focus of this dissertation. Snow and Benford (1988) noted the methodological value that master frames offer in providing words associated with events that allow for categorization. Master frames and a closely related concept of issue frames are expected to be found in online discourse associated with Sections 214 and 215 of the USA Patriot Act, and they are anticipated to aid in identifying and classifying the points of views being expressed about the legislation.

The use of frames is pervasive, Goffman contended, and any communication is subject to multiple layers of framing. Research based on his work has shown that by focusing upon the words people choose and use in describing an experience or opinion, it is possible to identify the frames they select, which, in turn, reveals an "organization of experience" that influences their perception and understanding and can guide action by

making experiences meaningful (Goffman, 1974, p. 13, Miller & Riechert, 2001, Snow et al., 1986).

Using Goffman's frame analytic perspective as a foundation, Snow et al. (1986) proposed a conceptual framework that is of particular relevance to this study. Snow and his co-authors sought to address the theoretical and empirical factors that prompt support for, and participation in, social movement organizations (SMOs), which are organizations with activist agendas. The result of their analysis is a four-fold typology of frame alignment processes that can influence or drive social mobilization, including participation in activist-type causes. Frame alignment is understood as the "linkage or conjunction of individual and SMO interpretive frameworks" (Snow et al., 1986, p. 467). The typology consists of:

• Frame Bridging – a form of linkage that can occur through outreach and information diffusion involving interpersonal or intergroup networks and can be facilitated by new technologies;

• Frame Amplification – the clarification and invigoration of a specific frame to increase its value to targeted participants;

• Frame Extension – the practice by individuals or social movement organizations of extending the boundaries of their primary focus to encompass interests or points of view that are "incidental to its primary objectives but of considerable salience to potential adherents" (Snow et al., 1986, p. 472);

• Frame Transformation – a redefinition of activities, events, and frames in order to change how targeted participants perceive them.

The typology is expected to be significant to this study for the way it defines how individuals and organizations can work to persuade others to their cause through frame alignment mechanisms. Each of the mechanisms is anticipated to be used by activists and social movement organizations in communication concerning the USA Patriot Act, and the mechanisms are expected to aid understanding and analysis.

While multiple interpretations of fact can be found everywhere, such interpretations are particularly evident in debate over contentious issues. Competing interpretations of facts are, in fact, the very essence of debate. That was evident to Todd Gitlin (1980), whom Noakes and Johnston (2005) credit with introducing the concept of frames into the field of social movement research. Gitlin's analysis of how the media covered Students for a Democratic Society (SDS) showed how the interests of mass media and activist organizations are often in opposition, in particular by the way that the media define "the public significance of movement events or, by blanking them out, actively deprive them of larger significance" (Gitlin, 1980, p. 3). In these ways, frames are used both by the media and social activists attempting to communicate through the media to shape public perception and understanding of politically charged or contested events and issues.

Gitlin's research is significant to this dissertation because it exists as a theoretical foundation that links framing theory to social movement research, a topic closely allied with issue advocacy, the focus of this study. The dissertation's use of frame analysis attempts to probe issue advocacy conducted by individuals and organizations, including social movement organizations that possess activist agendas.

Another study published two years later examined the role of political actors in the framing process. Gamson, Fireman, and Rytina (1982) analyzed how people reject authoritative explanations of events and construct alternative, new frames that explain what they are seeing. The study identified these reframing acts as the initial steps toward collective action. In this way, people made their own sense of developments, filtering what they heard with their own knowledge and experience. That filtering and sense-making is expected to be evident in how individuals and organizations frame their arguments about Sections 214 and 215 of the USA Patriot Act.

Criticism of Framing

The foundational studies cited above gave rise to a large number of framing studies in social movement theory and in broader areas of scholarship in communications (Gamson, Croteau, Hoynes & Sasson, 1992; Lee & Craig, 1992; Otway & Wynne, 1989), sociology (Hirsch, 1986; Miller, 1990; Spybey, 1984; Smith, 1987; Strong, 1980) , and political science (Ball-Rokeach, Power, Guthrie & Waring, 1990; Bensimon, 1989; Capek & Gilderbloom, 1992; Snow, Rochford, Jr., Worden, & Benford, 1986). With the growth in applications came divergence in theory and methods. Critics charged that framing has failed to reach its full potential due to a lack of theoretical underpinning. In 1993, Entman called for steps to clarify a "fractured paradigm" for framing and, more broadly, the discipline of communications as a whole (Entman, 1993, p. 51). Entman noted that despite the omnipresence of the theory, no agreement existed on its core tenets, in particular how frames become embedded and manifest in text or how frames influence thinking. Deficiencies cited by Benford (1997) and McAdam, McCarthy, and Zald (1996)

include framing's descriptive and relatively static nature, its lack of comparative analysis, and an unrestrained number of empirically derived concepts.

In an answer to these challenges, D'Angelo (2002) argued that framing functions as a metatheory, which encompasses three paradigmatic outlooks—cognitive, constructionist, and critical—each with its own specific theories and methods but all with a unified utility as a vein of scholarship. Observing and anticipating these variances, Entman (1993) commented that "whatever its specific use, the concept of framing consistently offers a way to describe the power of a communicating text," (Entman, 1993, p. 51).

The power of frame analysis is its ability to capture in meaningful ways how people understand and selectively communicate about complex issues. That power is fundamental to this dissertation's investigations. Frame analysis accepts that meaning is a negotiated process, in which understanding is derived from the facts and how they filter through, or interact with, a person's or organization's own experiences. In turn how that individual or organization selectively communicates about an issue can lay bare the way in which they selectively perceive an issue. These concepts of negotiated understanding and selective communication are expected to be richly evident in discourse surrounding Sections 214 and 215 of the USA Patriot Act.

Framing in Media Studies

The criticism leveled against framing has not slowed the number of studies using the theory. The body of research of media studies using framing explores why some ideas, issues, experiences, and events are selected and emphasized in the media over

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others. Gamson (1989) addressed manifest versus latent frames in news coverage and pointed to the difficulty of identifying frames based on the informational content of news reports. The frames were strongly driven by the "metaphors, catchphrases, and other symbolic devices that provide a shorthand way of suggesting the underlying story line … a rhetorical bridge by which discrete bits of information are given a context and relationship to each other" (Gamson, 1989, p. 158). In this way the language in which the frames were presented was important in revealing their meaning.

Entman (1991) examined contrasting news frames used by several important U.S. media outlets in coverage of the Korean Air Lines (KAL) Flight 007 and the Iran Air Flight 655 accidents. Frames used emphasized the moral bankruptcy and guilt of the perpetrating nation, de-emphasized guilt and focused instead on the inherent challenge of operating high-tech military equipment. Edelman (1993), while not focusing exclusively on the media, analyzed the use of frames to describe U.S. involvement in the Persian Gulf War. He determined, more often than not, that the frames functioned more as contestable metaphors than factual descriptions of motivations and events.

In these two studies, the frames were value-laden, revealing the internal interpretation of meaning occurring on behalf of those who formulated and advanced the frames. That internal interpretation of meaning is central to this dissertation's interest in the sense-making behavior of people and organizations as they grapple with, and communicate about, issues of public interest, such as Sections 214 and 215 of the USA Patriot Act.

Iyengar (1991) probed television's impact on public opinion related to political responsibility and accountability. Using field experiments, case studies, and correlational

analysis to national surveys, he found that television frames tended to be either episodic or thematic in format, with episodic focusing on specific events or particular cases, and thematic placing issues into a general context. Each placed particular limits on how news was conveyed and led, in some instances, to exclusion of issues entirely, such as global warming, which failed to fit neatly in either framing approach.

Iyengar's study is significant to this dissertation from a methodological standpoint. He comments upon the approach of using multiple methods, observing that the importance of using them in communications research is often acknowledged but seldom practiced. "Multiple methods permit the researcher to reject with greater confidence the possibility that evidence is artifactual" (Iyengar, 1991, p. 17). This dissertation's use of multiple methods is intended to provide overlap of measures, as it attempts to probe whether correlations can be drawn between Web structure and Web content on issues of public interest.

Entman and Rojecki (1993) examined media framing of the U.S. anti-nuclear movement and found journalists' actions in filtering the news were driven by judgments that appeared likely to be influential in the protest movement's ability to build consensus and mobilize support. The authors called these decisions "journalist framing judgments" and noted their power in affecting how the movement was understood, both by movement participants and the media audience. This study is significant to the dissertation for the way in which it suggests the power of frames in self-identification: in how individuals and, probably chiefly, organizations understand themselves and their alignment of interests.

Crawley (2005) traced the influence of an interest group's frame as it traveled from the group through the media to its intended audience. The study found that frames were more numerous and diverse at regional newspapers compared to more elite national papers. Her research is significant because of the way this dissertation expects to find more diversity of frames at the local, grassroots level than at the Web sites representing more formal organizations at the national level.

Framing in Internet Studies

In contrast to studies using framing to examine media coverage, literature about framing studies of the Internet is comparatively rare (Swanson, 2004, Wall, 2006). Kamhawi and Weaver (2003) found that less than 7% of published research in mass communication between 1980 and 1999 addressed the Internet, and more than 70% of work in that time frame addressed traditional print or broadcast media. Yet, in the growing vein of research on Internet communication, framing studies can be found.

An early study by Miller (1995) analyzed frames used in personal Web pages in a study of self-representation on the Internet. The non-systematic study classified a small sample of Web pages into five categories of personal representation. Miller noted the limited amount of information available at the Web pages to serve as frames in comparison to face-to-face communication and traditional written correspondence. "I was tempted to say that we just have to learn to read between the pixels of Web pages, but I think we have to read beyond the pixels to see how they express the social processes and intentions that lie behind them" (Miller, 1995, p. 8). The issue of small sample size appeared to exert the greatest limit upon this study; however Miller was prescient in

acknowledging that content analysis with the Web may need to involve more than just the text that resides upon a Web site and, instead, also encompass dimensions of Web structure, as well.

Chayko (1993) also described the challenge of analyzing experience on the Internet, in particular experiences involving dimensions of virtual reality. A reframing of frame analysis and also a reconceptualization of reality itself are necessary, she argued, to understand how social worlds involving highly sophisticated technologies are generated and imbued with meaning, and to probe the subtle, long-term effects that such technologies can have. Virtual realities, Chayko noted, transform everyday life and redefine real experience in ways that challenge, if not defy, researchers' efforts to capture and analyze them. Her statement echoes thoughts expressed by others, notably MacKenzie (1999), who noted the difficulties presented to researchers by the very flexibility of how a technology functions and can be used.

In a background paper, Cronauer (2001) discussed use of framing in an ongoing study that sought to analyze activism involving two electronic mailing lists. Her study, which also drew upon informational interviews, aimed to evaluate how groups framed their goals and activities; how individuals responded to the online framing efforts; how structural features of electronic mailing lists shaped online messages; and how the contexts of such lists, for example, group size or group objectives, affected online dynamics.

Whether the Internet's capabilities can be successfully used as tools for political mobilization, Cronauer (2001) observed, depends on a number of factors, including how users understand their experience with Internet tools and the meaning they make of the

experience. That understanding points to the central precept of social shaping of technology: that it is how humans use and make sense of technologies that affects their future development. Technologies are socially shaped rather than technologically deterministic in nature (MacKenzie & Wajcman, 1985; Mackay & Gillespie, 1992; Standage, 1998). Opinions vary on this concept, however, with some arguing that technology is value-laden and deterministic in nature, and others contending that both influences are in play, with users influencing technology's development and technology exerting its own influence in how it is adopted, used, and subsequently developed.

In a comparative study, Royal (2004) used hand-coded and computerized content analysis to support a frame analysis of a women-focused online forum, iVillage, and a men-oriented one, AskMen.com. Noting the difficulties of random sample selection of Internet content, Royal limited her study to the two forums and focused strictly on text provided as instruction to site users rather than in any visitor-generated content at the forums. Using frame analysis, she categorized content at the sites into nine categories, including pornography, home/family, privacy, business, and dating/relationships. The study ranked frequency of frames by site and identified terms used disproportionately by each site. For iVillage, the most frequent terms were associated with health, kids, and email. For AskMen, the most frequent were stock/stocks, woman/women, and e-commerce. For a technology that was initially praised for its potentials to aid democracy and equalization, the Internet content being developed at the two forums, Royal observed, appeared destined to continue to divide users along gender lines.

Royal's (2004) study is relevant to this dissertation for its finding, based on a limited study, of a divisive effect rather than a community-building one. The overarching

question guiding this dissertation is whether the Internet, through its use by individuals and organizations, appears to be having a polarizing, fragmentizing, or synthesizing effect on discussion and debate of public issues.

Noting the dearth of mass communication studies focused on the Internet, Swanson (2004) examined Internet communication through a framing analysis of a small set of Christian apostasy churches. His study sought to probe how the churches were using the Internet to disseminate information, evangelize, and proselytize. The study found that most sites were focusing on information dissemination rather than the evangelization or proselytization frame and, in general, falling short on the potential benefits that Internet communication offered in reaching out to existing and potential new members of the faith.

Wall (2006) conducted a frame analysis of blogs that were active during the second Gulf War. The qualitative study analyzed posts on 25 different news-oriented blogs across a three-week span. The study found, in general, that bloggers worked within existing discourses about the war, largely using pro-war and anti-war frames. The blogs also touted blogging itself as a method to overcome the limits of war reporting, as some bloggers saw themselves as improvements over the mainstream media. Overall, the study found that the main frames employed—pro and anti-war—reflected a lack of originality or alternativeness in terms of the ideologies expressed. Rather, they appeared to follow the same sorts of tendencies identified with all war reporting, which, Wall noted, led to a broader question of whether blogs "are indeed offering alternative perspectives overall or are they simply more personalized, potentially more visceral versions of existing public discourses?" (Wall, 2006, p. 122).

These studies are noted, from a methodological standpoint, as examples where frame analysis was found to be an effective approach to probe Web-based discourse on divisive issues.

Framing in Issue Advocacy Studies

Published literature of studies using frame analysis to examine political issues introduces several theoretical concepts appropriate to this dissertation's investigations. Shah, Domke, and Wackman (2001) depict framing as choices made among differing sets of values that constitute an underlying rationale for a particular policy stance or discussion. From this perspective, framing is about the presentation of an "equivalent set of considerations in the context of different themes, or organizing principles" (Shah, Domke & Wackman, 2001, p. 228). The authors' theory of "value frames" contends that politicians and activists struggle over the terms, or values, used to define issues to build public support for their perspective.

Acceptance of these value frames on the part of their intended audience is not automatic. Rather, as Zaller and Feldman (1992) have asserted, most people are conflicted with multiple, sometimes opposing considerations on many political issues and do not exhaustively probe all points of view or information resources. Instead they sample from available thoughts and beliefs and may oversample those that are easily summoned to conscious thought. In accordance with this perspective, value frames then mesh with predispositions and tendencies on the part of the receiver, functioning to prime certain ideas for individuals (Iyengar and Kinder, 1987).

Nelson and Oxley (1999) propose "issue frames" as among the most informative type of frames used for political information studies. Issue frames describe "social policies and problems that shape the public's understanding of how the problem came to be and the important criteria by which policy solutions should be evaluated" (Nelson & Willey, 2001, p. 247). These frames arise not from the media, but from those who seek to shape public perceptions, among them politicians, editorialists, and think tankers.

According to Nelson and his colleagues, who with Gamson (1992) are the greatest proponents of issue frames, most issue frames can be summarized by simple tag lines, such as "affirmative action" or "anti-abortion." The most effective issue frames, however, contain a "medley of elements that fit together, gestalt-like, to form a total interpretative package that makes sense of the issue and suggests a course of action" (Nelson & Willey, 2001, p. 248). In this way, the issue frames can arise from a set of specific frames to function in a more synergistic way as master frames that describe, or organize thought about, a particular orientation on a political issue.

Callaghan and Schnell (2005) also argue that issue frames are often derived from specific frames to become overarching themes. The post-9/11 theme for the Bush Administration became the "War on Terror," which allowed the power elites to alter public debate on a range of domestic and international policy issues (Callaghan & Schnell, 2005). Issue frames and overarching frames are expected to be highly relevant to this dissertation's analysis of discourse concerning Sections 214 and 215, particularly given the complexity and sweep of the USA Patriot Act.

Methodological Considerations of Frame Analysis

The goal of frame analysis is to identify, through examination of words, the core cognitive structures that guide the perception and representation of reality. Use of frame analysis has grown rapidly since the 1990s, with the approach serving as an analytical framework for media studies and social movement research. As noted earlier, frame analysis' widespread use may also be a contributing factor to the ambiguity of its methodologies. As Koenig (2004) observes, frame analysis' methodological foundation lacks systemization and remains underdeveloped. That inherent lack of clarity can easily bridge to flexible interpretations, and those are evident in published studies using frame analysis

Differing interpretations of frame analysis' methods can be found in the literature, with studies using a range of disparate approaches (D'Angelo, 2002; Fisher, 1997; Maher, 2001). Some of the studies, Scheufele (1999) notes, are even in conflict with one another. Differences are particularly evident in directions that scholars take to identify and measure frames. These processes can be done either through hand coding or computer-assisted coding programs. In the traditional method of hand coding, the researcher specifies the categories, terms, or words that are sought in the text. In computerized coding, word selection is based on frequency.

Some scholars contend that selection of key words used to develop frames is best when fully automated through computerized content analysis programs (Andsager & Powers, 1999; Cowart, 2003; Koella, 2001; Lind & Salo, 2002; Miller, Andsager, & Riechert, 1998; Riechert, 1996) Computer-assisted quantification offers distinct

advantages of being quick, capable of processing large volumes of data, and supportive of replication by others because of the way it objectifies the frame selection process.

Yet a challenge to fully automating the frame identification process is that frames can be implied in meaning or latent in nature rather than overt conceptualizations (Koenig, 2004; Maher, 2001). As such, they can be expressed inconsistently through word constructs, requiring interpretation on the part of the researcher. In such circumstances, computerized keyword selection can lead to non-interpretable key words and the exclusion of stop words such as prepositions and articles that can sometimes be the strongest revealers of certain frames (Koenig, 2004). Additionally computerized selection of key words requires researchers to judge at the outset how many eigenvectors are sought and what the significant key words or frame terms may be, a practice criticized as researcher fiat (Tankard, 2001).

For those reasons, a number of researchers have concluded that "interpretative identification" of relevant concepts is appropriate and accepted (Andsager, Austin, and Pinkleton, 2001; Callaghan & Schnell, 2005; Miller 1997; Tankard, 2001; Tedesco, 2001). Through this process, researchers apply labels or overarching themes to specific frames that attempt to capture and convey their essence (Nelson & Willey, 2001).

In a critical review of recent frame analysis studies, Koenig (2004) contends that hybrid approaches combining qualitative and quantitative methods generally hold advantage over more narrowly construed studies. Iyengar (1991), who directed a wide-ranging framing study on television news, also advocates a multiple methods approach.

Koenig's approach is the one selected for this study for the strengths it offers. This dissertation's descriptive frame analysis identifies and labels frames, directly using

the language of the discourse when possible and using interpretative identification when necessary to consolidate meaning. The study's quantitative frame analysis offers a secondary, data-derived measure of the meaning that people are assigning, through frames, to Sections 214 and 215 and how they are communicating and debating about issues associated with the two sections. Together, the descriptive and quantitative analyses are believed to provide a richer understanding of the dynamics of framing in play over the USA Patriot Act than would a more narrowly constructed study.

Summary

This section of the foundational theory chapter has traced the origins of frame analysis and discussed its development and use to examine political issues. Researchers have found frame analysis to be a useful theoretical framework by which to examine how individuals make sense of, and communicate about, contested issues. The literature review found comparatively few framing studies focused on Internet communication, and those that exist differ in focus from that of this dissertation, suggesting this study will fill a needed gap in the literature through its examination of Web-based discourse concerning Sections 214 and 215 of the USA Patriot Act. Frame analysis studies of political issues offer the conceptualization of issue frames, which, along with master frames, are expected to be valuable theoretical constructs to this study's analysis of discourse of a public issue. From a methodological standpoint, several key frame analysis researchers have endorsed a multi-method approach to framing, in which several approaches are used in an attempt to triangulate upon a subject. Their conclusions provide support for this study's multi-method approach.

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Social Network Analysis

Origins and Development of Social Network Analysis

One obstacle to researching use of the Internet arises from the unique nature of the network itself (MacKenzie, 1999; McMillan, 2000; Schneider & Foot, 2004). Particularly on the World Wide Web, content expands rapidly and undergoes frequent change, with some Web content experiencing almost constant updates. As McMillan (2000) observed, based on a meta-analysis of 19 content analysis studies of the Internet, factors of growth and change must be taken into account in the research designs of studies that focus on the Internet. In fact, the factors advocate for a cohesive network approach that addresses simultaneously the content that resides on Web sites and the structural dimensions of the sites themselves, returning to Castells' (2001a, 2001b) notion of a networked society.

Another related challenge for researchers is adjusting methods developed to analyze linear content, such as traditional mass media effects, to a medium that is distinctively non-linear in nature. The Web's system of hyperlinks and fluid forms of Web page design allow content to be networked in a myriad of ways.

Farrall and Delli Carpini (2004) contend "there has been a general failure in social science to recognize that cyberspace is a fundamentally new social space with its own laws" (Farrall & Delli Carpini, 2004, p.1). The failure of traditional research methods to address Web content, they believe, has contributed to the ongoing debate concerning the

effects of the Internet and computer-mediated communication upon political debate and democracy.

An approach that appears capable of overcoming some of the methodological problems of previous Internet-focused studies can be found in applying a network perspective to the Internet. Many communication and information studies of the Internet are, in fact, network studies for the way in which they narrow their focus to an examination of how select groups of users or forms of content—each, in essence, a network—function on the Internet.

According to McNutt (2006), the science of networks and popularity of network analysis among researchers have gained increasing relevance across the past decade as traditionally separate academic disciplines have "joined analytical forces to explain the complexity of social organization in the context of globalization, information technology, global civil society, and the modernization of the policy process" (McNutt, 2006, p. 391).

The concept of networks as a vein of scholarship arose in the mid 20th century from a fortuitous joining of mathematical, sociological, statistical, and computational theories (Wasserman & Faust, 1994). A key influence was Moreno's (1953) development in the 1930s of a sociogram, the core tool in depicting and measuring the interpersonal relations of small groups. A sociogram shows people or any social unit as points in two-dimensional space with relationships among pairs represented by lines that link the corresponding points. Before the advent of the sociogram, Moreno claimed that "no one knew what the interpersonal structure of a group 'precisely' looked like" (Moreno, 1953, p. lvi). His approach was widely adopted, and researchers seeking to study networks have continued to rely heavily on visual displays involving two or higher dimensional

representations to depict actors and their interconnections in finite network systems (Wasserman & Faust, 1994; Wellman & Berkowitz, 1988). The approach has grown rapidly in recent decades, in part because of interest in studying dimensions of linked computer networks. The discipline that has arisen from sociometry and network theory, called social network theory, and its methods of social network analysis (SNA) offer scholars new tools to examine online communication, among them studies that analyze linkages and use computerized mapping techniques to aid in network visualization (Farrall, 2005a; Rogers, 2004; Scott, 1991; Wasserman & Faust, 1994; Wellman, 2001).

Core Concepts of Social Network Analysis

Social network analysis (SNA) is based on the central belief of the importance of relationships among interacting units. A social network is understood as a finite set of actors and the relation or relations defined on them (Wasserman & Faust, 1994). The social network analysis perspective has yielded a set of methods for the investigation of the relational aspects of social structures with emphasis on relational rather than attributive data (Scott, 1991). In this way, SNA shows strong similarities to frame analysis, which holds that meaning is established through a negotiated process.

Core ideas to social network analysis include the following:

• The use of relational concepts

• Actors and their actions are considered interdependent and not independent nor autonomous

• Linkages between actors constitute channels through which communication flows

• Network structures provide opportunity for, or constraints upon, individual action and are viewed as a lasting pattern of relations among actors (Scott, 1991)

• Units of analysis are based not on individuals, but on a network consisting of a collection of individuals and the linkages between them (Wasserman & Faust, 1994)

The social network perspective holds that characteristics of social units arise from structural relational processes or from the relational system itself. Notably, and of strong significance to this dissertation, this view complements the central tenet of frame analysis: that individually held meaning occurs or is shaped through social exchanges with others. SNA extends this perspective to larger networks of actors that collectively form communities. The goal of SNA is to understand the properties of a social structural environment and how those structural properties influence observed characteristics and associations among actors in a system. Such systems are generally construed to be composed of nodes, or actors; edges, the lines or, in the case of the World Wide Web, the hyperlinks, that link actors in the networked system; and flows of information or communication across the edges (Barney, 2004; Farrall, 2005a).

Published research using SNA includes examinations of small groups (Shaw, 1978), research and development collaborations (Allen, 1997), organizational communication (Tushman, 1977), organizational structure and relations (Aldrich & Whetten, 1981; Tichy, 1981), and a large number of other areas, including diffusion of innovations and national development (Rogers & Kincaid, 1981). The network perspective and network modeling have also been used to probe various networks of power, including the world system of international monetary flows (Salisbury & Barnett, 1999).

In a critical review of recent research on local and national power, Knoke (1994) notes the usefulness of social network perspective's theoretical principles, concepts, and methodologies for research on power structures at community and national levels. Researchers applying network methods have produced new insights into political cleavages and coalition formation, which are the core areas of investigation for this dissertation.

One of the foremost figures in applying social network perspectives to political coalitions was the late Mark Lombardi. The meticulous, hand-drawn maps that Lombardi developed bridged the worlds of activism and fine art. Lombardi's drawings of networks depict and probe financial and political scandals, primarily from the final two decades of the 20th century. His models identify actors, show lines of influence or control, identify mutual relationships or associations, and indicate flows of assets among actors in finite systems (Hobbs, 2003). Figure 2.1 shows a Lombardi network model from 1999 that traces the interconnections involving a Midwestern bank, Global International Airways, and mob associates, showing linkages that proved integral to the financial institution's eventual failure, one of many saving and loan failures of the era. A review in *The New York Times* described Lombardi's models of networks as "delicate spider webs of scandal" (Kimmelman, 2003), and his drawings were the subject of a traveling exhibition in 2003 and 2004. Significantly, also in 2003, intelligence analysts with the U. S. military admitted that they used Lombardi-like linkage analyses to explore clan and family ties among the circle of bodyguards, mid-level officers, drivers, and gardeners protecting deposed Iraqi leader Saddam Hussein. The link diagrams were said to be the key to the
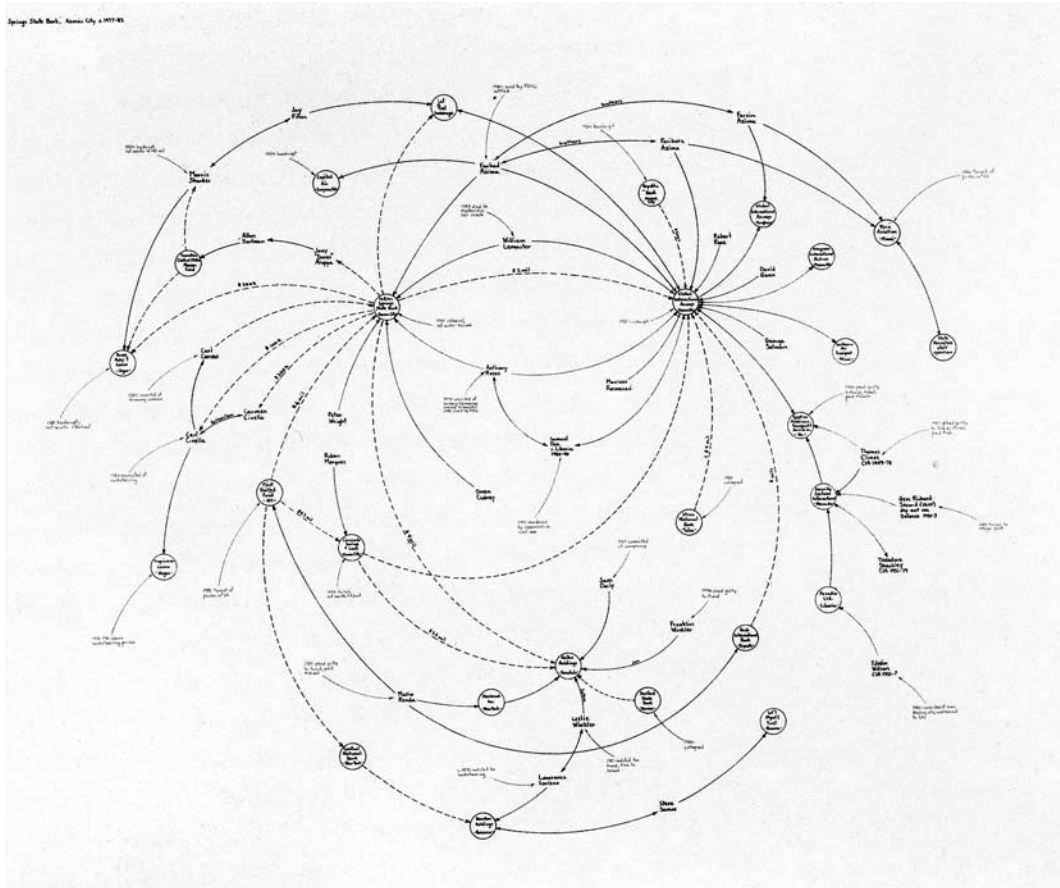
Figure 2.1. A 1999 model by Mark Lombardi of Global International Airways and Indian Springs State Bank, Kansas City, ca. 1977-83.

Note. Lines indicate flows of influence and resources involving the airline, bank, and figures in organized crime. The system of relationships ultimately led to the failure of the bank, one of many failed savings and loans of that era. From *Mark Lombardi Global Networks* (p. 83) by R. Hobbs, 2003, New York, Independent Curators International. Reprinted with permission.

Army's capture of Hussein, delivering a breakthrough that had eluded traditional methods of military force and intelligence gathering (Fassihi, 2003; Loeb, 2003).

Linkage Analysis

Both Lombardi and the intelligence officers whose work led to Saddam Hussein's capture used a SNA approach called linkage analysis. In its simplest form, the approach identifies actors in a finite system and analyzes their interrelationships by identifying and categorizing how the actors are connected. This conceptualizes structure as relational in nature, with focus on how actors interact directly and indirectly as they function or make use of resources and information (Rogers & Kincaid, 1981; Rice, 1994). The network that results functions similarly to a clique, in which actors who interact with each other more frequently than others form interwoven or denser subsets of an overall network. Other, more marginalized members of a network appear toward the periphery, as evidenced by the fewer links that connect them to the overall whole.

As Lombardi and the military intelligence analysts demonstrated, data visualization of linked networks can reveal unexpected relationships and interconnections in networks of great complexity. The approach appears ideally suited to probe extant or emergent structures among actors on the World Wide Web, permitting a flexible and adaptable way to depict how Web sites link to each other or to resources of shared interest. As Castells (2001b) observed, such linkages among Web sites can be inferred to represent human linkages, as well, revealing social networks of individuals and organizations.

For these reasons, linkage analysis appears ideally suited to this dissertation's investigation of issue networks on the World Wide Web: whether they exist and, if they do, what is their nature. Does their structure reflect the complexity of issues involved in the language and scope of Sections 214 and 215? Do they engage like-minded individuals or do they bring diffused views together in a network, and are some organizations and Web types more likely than others to be engaged in these networks? Linkage analysis as a method appears well positioned to provide answers to these questions.

Linkage analysis identifies actors in a finite system and distinguishes among the most central actors, or nodes, and those who are present but marginal in a networked system through analysis of the linkage patterns that interconnect them. Co-link analysis is a standard method in bibliometrics and scientometrics, also referred to as citation analysis, where in this case a hypertext link is treated as a citation.

Depending upon the focus of a study, a linkage analysis may incorporate measures of directionality of linking activity; measures of node activity that distinguish the most influential or heavily trafficked areas of a network; and metrics that evaluate distances among actors in a network (Wasserman & Faust, 1994; Farrall, 2005a).

Linkage analysis that focuses on networks on the World Wide Web analyzes crosslinking patterns of hypertext links, the building blocks of the Web. Specific software toolkits have been developed for such analysis. The strengths of such programs include their capability of handling large *n* data sets, generating precise results, and processing data quickly and economically (McNutt, 2006).

Linkage analysis is central to two growing veins of inquiry. Schneider and Foot (2004) identify linkage analysis as one of several approaches used in a multi-method

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approach called web sphere analysis. Emerging from the field of Web studies, the approach is notable to this dissertation for its conceptualization of a Web sphere as simultaneously a set of Web sites and the "dynamically-defined digital resources" (Schneider & Foot, 2004, p. 118) that reside across the network of Web sites. The resources consist of content linked by central events, concepts, or themes and often connected through hyperlinks. That convergence of looking both at Web content and structure is also driving changes in computer science studies, as researchers broaden their operational definitions of community to encompass both content and structure (Farrall, 2005b).

The second vein of inquiry in which linkage analysis is used exists within the field of social network theory. Issue network analysis represents a specific application of social networking theory within a collection of methods known as web graph analysis. The focus of issue network analysis is upon networks formed by organizations and individuals united by specific civic or political factors (Rogers & Marres, 2000). Goals for issue network analysis include identifying key actors within a specific issue space and examining their interrelationships and orientation toward actors and institutions within a broader social space.

As Farrall (2005b) notes, the method can provide insight about how certain political issues relate to one another in the public sphere and how actors may serve as bridges that link social groups with differing or even opposing issue orientations. Huey observes that for sociologists and those interested in social movements, in particular, analysis of linking behavior "instantiates theories about ideological communication" (Huey, 2005, p. 126), with Web site linking functioning as a way to invent and not

merely influence political structures in the public sphere. The status of nodes and the connections between them can facilitate, and reveal, ideological, political, and policy-oriented tendencies of a community (McNutt, 2006).

These notions connect to broader theoretical writings that the world has entered a new post-industrial era that can best be named the network society, in which networks have become the basic form of human organization and relationship across a wide range of social, political, and economic dimensions (Barney, 2004). Integral to the social networking that is occurring are advanced information technologies such as the Internet, which relates in an umbilical way to facilitate human networking (Barney, 2004; Castells, 2001a, 2001b).

Because of its specific focus on networks formed by organizations and individuals united by specific civic or political factors, issue network analysis appears to be the most appropriate form of link analysis for this study's investigations. It offers a flexible and powerful approach with which to probe how individuals and organizations have united, through Web hypertext links, in online discourse over a public issue.

In a critical review of link analysis research traditions, Thelwall (2006) argues that the dynamic nature of the Web, its lack of quality control, and the proliferation on the Web of copying and imitation make link analysis methodologies that are strictly quantitative in nature ineffective. Yet, the Web's scale and variety present problems for purely qualitative link analysis studies. Therefore he advocates that methods that involve triangulation are best suited for study of social factors underlying link creation. Method triangulation is the use of more than one method for the same objective so that the

combination of methods can illuminate more light than any single method on its own (Tashakkori & Teddlie, 1998).

Thelwall's commentary provides additional support for this dissertation's use of multiple methods to examine issue networks in existence over Section 214 and 215 of the USA Patriot Act. The study's issue network analysis is based both on quantitative mapping and descriptive analysis of linking patterns found to exist between actors in the issue networks.

Integration of Framing Analysis and Issue Network Analysis

The sections above have reviewed the origins and developments of two complementary veins of inquiry. Researchers are finding issue network analysis to be a useful and promising approach to analyze the presence and extent of issue-driven community formation on the Internet. Significantly, social network analysis and the Palo Alto School's work in interactional communication, from which frame analysis is derived, share the perspective that understanding is socially created. Consequently issue network analysis and frame analysis studies are rooted in a common theoretical perspective, with both approaches looking to linkages among actors as a factor in shaping meaning.

Used together, issue network and frame analysis appear well suited to probe dimensions of online discussion and debate over the USA Patriot Act and, more broadly, to provide understanding of how individuals and organizations are using the technologies of the Internet to communicate over contentious public issues.

The literature review found gaps in published mass communications studies of the Internet, and this dissertation's focus upon Internet communication using a traditional form of inquiry, frame analysis, and an emerging one, issue network analysis, is poised to contribute both methodologically and theoretically to these veins of scholarship by analyzing how key online constituent groups communicate concerning the USA Patriot Act. These points will be developed further in Chapter III, The Problem, which follows.

CHAPTER III
THE PROBLEM

Computers, the Internet, and Politics

Introduction

The integration of computers and communications technologies can be understood as a social convergence, as well, because technologies and the social systems in which they arise and function are inextricably bound together (Rafaeli, McLaughlin & Sudweeks, 1998, de Sola Pool, McIntosh & Griffel, 1971). Technological change is shaped by social factors, and technologies and their social uses tend to develop together, mutually influencing one another in a continuous process (Strausz-Hupé, 1971). The 'technical' in technology is socially constructed, and as workplace studies have found, "social structures, such as organizations, cannot be analyzed in isolation from their material underpinnings" (Williams, 1999, p. 42; see also Clausen & Williams, 1997).

Nowhere is this relationship of interdependency more evident than in the flexible and diverse information and communication technologies that comprise the Internet. The network has evolved through a complex, contingent, and fundamentally open process that has been subject to as much influence by the citizens, organizations, and business enterprises using the network as it has by government officials and policymakers (MacKenzie, 1999).

Even before the Internet emerged into widespread public usage in the mid 1990s, some social theorists were predicting that advances in computer technology and growth

in information usage and exchange would converge into a global information utility, one that would have profound social impacts (Sackman & Nie, 1970; Westin, 1971).

Opinions differed on the impacts that would occur. Westin (1971) observed that forecasts of expected impacts tended to be colored by the times in which they occurred. Commentary in the early 1960s tended to reflect the heady optimism of the early Kennedy era, while commentary on technology and democracy later in the decade mirrored the deep political cleavages that had emerged as America wrestled with civil rights and the Vietnam War.

Among the futurists who took a positive bent on the expected impacts was de Sola Pool (1984), who described advancing digital and computer technologies as technologies of freedom that would have a liberating, even revolutionary effect on personal freedom. The Japanese futurist Masuda (1981) also forecast that computer networks would drive sweeping cultural, economic, and political change in societies around the world.

The United States, Carey (1989) contends, possesses a uniquely positive belief about the value of communication technologies to spread democracy and democratic values. Carey traces this notion back to the eras of Presidents Jefferson and Madison, who depended upon the communications technologies of their era—canals and roads—to overcome otherwise natural constraints on democratic governance of the 13 colonies. Roughly two centuries later, similar views over the power of communications technologies for democracy and individual freedom gained prominence through Marshall McLuhan's declarations of a global village made possible through the power of new media (McLuhan & Powers, 1989; Ess, 2001).

Dystopian predictions are also evident in the literature, with scholars contending that new information technologies would likely accelerate divides already present in society, among them information gaps (Brzezinski, 1971; Tichenor, Olien & Donohue, 1970). Others speculated the Internet would overwhelm people with information, much of it questionable in veracity (Shenk, 1997) and further contribute to the dissolution of a sense of community by escalating individual-centric behavior (Nie, 1970; Putnam, 2000).

Ess (2001) terms the contrasting views of the Internet's potential as a "now classic dichotomy." It began with enthusiasts hailing a new communications revolution that was expected to radically change democracy by emphasizing libertarian and plebiscite values. Skeptics expressed concern that forces focused on commerce and control of information were guiding the Internet more, and they perceived fragmenting and decentralizing social effects.

In the 1990s, as the Internet became the subject of public fascination in the United States, journalists and critics alike expressed many of the same views as the theorists, forecasting tremendous change that the network would bring to the daily conduct of life, including politics (Quarterman & Smoot, 1994). From today's vantage point, reflecting on the network's first three-and-a-half decades of existence, it can be argued that many of the expected changes have been realized. As predicted, the Internet accelerated information flow. The network also led to the computerization and globalization of commerce that ushered in a new era and domain of e-commerce, and the Internet facilitated mass and personal communication in ways that were previously unimaginable. In these ways, the Internet has become an accepted part of everyday life for millions of

people in the U.S. and around the globe. Yet the network's impacts in other areas remain ambiguous. One such area is that of community formation and functioning.

In 1995 Robert Putnam (1995) published a troubling and attention-getting article in the *Journal of Democracy*. The Harvard social scientist charted an array of data from empirical and theoretical sources that indicated a marked decline in the sense of community in the United States. This sense of community, also understood as civic engagement or civic life, encompasses a realm of collective and often altruistic activity that belongs neither to the market nor to the state (Talbot, 2000). In social science terms, the activity is the domain of social networks: groups of people who come together out of shared interest or need (Wellman, 2001).

Putnam noted that in two generations, church attendance and participation in public meetings had fallen sharply, as had voting behavior and numerous other measures of civic participation that were believed to unite individuals into communities and engender a sense of belonging. Putnam concluded that the net effect of these trends was a U.S. population cut adrift from the stabilizing influences of social networks. He described a society made up of individuals who were increasingly isolated and less empathetic toward each other, more angry, and less inclined to participate in, or unite as, communities or as a nation (Putnam, 1995).

The thesis captured national attention and launched Putnam on a national speaking tour as well as on a visit to Camp David to participate in seminars with President Bill Clinton. In his expanded discussion of the data, published as the best-selling book *Bowling Alone: The Collapse and Revival of American Community*, Putnam (2000) counted the Internet as one of the largely solitary endeavors that were contributing

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to the fragmentation of community in the United States. And yet a recurring theme in writings about the impact of the Internet by others has been that the network can facilitate and energize active civic engagement.

Howard Rheingold is, in some ways, the optimistic counterpoint to Putnam: a best-selling author focused on the beneficial impacts of information technology on community and social networks. Rheingold documented community ethos in the online forum the WELL in his 1993 book, *The Virtual Community: Homesteading on the Electronic Frontier*, and he has continued to probe community-centered behavior assisted by information technology in successive works, including the text, *Smart Mobs: The Next Societal Revolution* (Rheingold, 2002). Where once citizens gathered in court squares and commons houses to exchange views on the issues of the day, today, Rheingold (1993, 2002), Castells (2001b), Barber (1984), Dyson (1998) and others contend, it is the unique technology and flow of information united by the Internet that can serve as a forum for social exchange, collaboration, and debate.

Despite the growing centrality of the Internet to everyday life, researchers have noted the dearth of studies concerning the network's facilitation of online community (Barney, 2004; Kamhawi and Weaver, 2003; Swanson, 2004; Wall, 2006). Further, the research that does exist notes the difficulties of applying conventional research approaches to a changeable medium (Chayko, 1993).

Questions also exist about the Internet's impacts for political issue advocacy in the United States. Abroad, in nations where information and political access were tightly controlled, the Internet proved to be a powerful political tool for protestors, figuring

prominently in the overthrow of the Soviet Union and former Yugoslavia (Emery &

Bates, 2001).

In the United States, with its political system built upon concepts of participation

and representation—the very social ideals that the Internet provides dynamic tools for—

only glimmers of significant use of the Internet have been seen in issue advocacy related

to influencing democratic processes. Reasons for this are unclear. It can be argued that in

the United States, other channels of political communication are well established and

effective, rendering the Internet less important. However, given the network's

prominence in social activism and the plethora of articles and books probing potential

impacts of the Internet on American politics, the relative absence of academic studies

attempting to document and probe the Internet's use in specific instances of issue

advocacy is curious, at best.

In their survey of political uses of the Internet, Margolis and Resnick (2000)

comment upon the difficulty of demonstrating the effectiveness of campaigning on the

World Wide Web by parties and candidates, and note that evidence of the effectiveness

of interest groups' use of the Web is even more elusive. Today, however, two veins of

inquiry—issue network analysis and frame analysis—appear to offer promise for studies

in this direction. This dissertation's use of those theoretical perspectives is an opportunity

to assess and measure political issue advocacy on the World Wide Web, while also

probing the Internet's impacts in areas of online community formation and functioning.

Political Communication on the Internet

The ways in which the Internet can be used for political communication and issue advocacy are diverse and far-reaching. Compared to the traditional tools of political persuasion—among them advertisements in the mass media, use of printing houses, and telephone polling—individuals and small and large networks of activists encounter far lower barriers of entry in using the Internet to communicate their views in discussion and debate of public issues.

Individuals and organizations defined as activists engage in direct, vigorous action over contested issues, particularly in support of, or in opposition to, one side of a controversy (Merriam–Webster, 2005). Activist organizations are known by various names, including political factions and political action committees (PACs), organized interests, pressure groups, special interests, and, in sociological literature, as social movement organizations (SMOs). The political uses of the Internet by individuals and groups are generally aimed at influencing political activity offline, either to win or advance support or muster opposition for a cause, candidate, or proposed legislation through organization and recruitment. Desired outcomes include raising funds, contacting legislators, petitioning others, and voting in elections.

McCaughey and Ayers (2003) convey the energy of political activism on the Internet, noting that activists create online petitions and launch public awareness Web sites in support of favored organizations. Activists have also deployed spoof Web sites to challenge the conduct and policies of controversial organizations such as the World Bank, Kellogg, and Monsanto (Govcom.org, 1999/2000). Activists also use Web sites and wireless technology to organize and encourage offline action such as coordinated

protests during meetings of the World Trade Organization and summits of the Group of Eight (G8) nations (Rheingold, 2002).

In an analysis of the assets the Internet offers to grassroots organizers and campaign managers, Browning (2002) cites the ability to connect with like-minded individuals. "What's amazing about the Internet is that I don't have to know everybody's name to find people who are interested in the same issues I am," comments the head of a Washington-based advocacy group. "On the Internet, …people find you, just as you find them. People have a way of organizing themselves into areas of common interest that just doesn't exist in the more unidirectional media, like the mail or telephone networks" (Browning, 2002, p. 6).

Bimber (1998) phrases this tendency as accelerated pluralism, in which liberal democratic politics in a new network society era becomes a contest between groups of people who coalese around narrowly defined interests but who have little interest in politics beyond their own specific interest. In this respect, politics becomes a struggle to "define the parameters of public discourse, and the symbolic and cultural codes through which norms and expectations are expressed and circulated" (Barney, 2004, p. 122). In other words, issue advocacy becomes centrally a contest of framing activity, which this dissertation investigates.

Another asset of the Internet to political activists that Browning (2002) highlights is the power to spread information quickly in a wide number of directions, which eclipses direct mail marketing in immediacy and can lead to quicker action than telephone banks that patch callers through to legislative offices. Browning's (2002) study suggests that

issue networks will indeed have formed surrounding controversial policy such as Sections 214 and 215 of the USA Patriot Act.

Bosso and Collins (2002) list the ways in which interest groups can make use of the Internet derived from a survey of how major environmental organizations in the U.S. are using Web sites. Functions identified included to convey information, communicate to supporters and members, raise funds, and encourage grassroots activism. Benefits the authors cite include low cost of entry, rapid flow of information, and easier access to search engines and online directories. Content that integrates geographic information systems or multimedia features can be particularly powerful as can the potential for bidirectional, or interactive, communication through email, AOL Instant Messenger, and related programs. In these ways the network can function as a one-to-many channel as well as a many-to-many channel.

From these general comments, Bosso and Collins turned to a content analysis of key environmental Web sites, classifying Web-based content into categories of informational features; membership features; fund-raising features; grassroots features; and community features. Their study found information features dominated, followed by grassroots-focused content. Community-building content was the least prevalent, and few efforts were being made to personalize content to enhance the experience of belonging or of membership in the organizations. Bosso and Collins note a particularly compelling question is whether and how established groups differ in Internet usage patterns from more radical groups or more Web-based groups. "This question alone is worth a major study" (Bosso & Collins, 2002, p 112). Through a stratified sampling technique, this

dissertation seeks to explore that question, by including Web sites representing

individuals as well as organizations in its frame and issue network analysis.

Across the past decade, political organizations have increasingly transitioned

many of their core activities to the Internet. Through e-mail and Web sites, the

organizations contact voters, recruit activists, raise funds, interact with journalists,

communicate within their organizations, and mobilize their political base on election day

(Johnson, 2006; Arterton, 2003).

Opinions vary about the significance of political activism and communication

using the Internet. Some theorists contend that the convergence of democracy with the

information technologies of the Internet will lead to important structural changes in

politics and, in fact, may ultimately transform how politics is conducted (Bimber, 2003;

Hauben & Hauben, 1996; Marvick, 1970; McCaughey & Ayers, 2003; Rash, 1997;

Rheingold, 1993). Others argue that the Internet simply represents an additional medium

of communication regarding political issues and debates, one that can overwhelm users

with too much data (Shenk, 1997) and that citizens uninterested in politics will likely

ignore (Frantzich, 2002; Nie, 1970). And some theorists have shifted position over time

about the potential of the Internet's political impacts. In 1984, Barber expressed optimism

about information technology's value and impact in political communication. Writing in

1998, however, he expressed concern that the Internet could undermine the quality of

political deliberation and degree of social integration (Barber, 1998).

Thus, among theorists, ambiguity and lack of consensus continues to exist over

the Internet's impacts on domestic politics in the U.S., including the sense of engagement

that individuals hold in democratic processes. This signals a gap in theory to which this dissertation can make contributions.

An empirical study by Bimber and Davis (2002) looked at campaign Web sites in 2000 and concluded that they served chiefly to reinforce the attitudes of committed voters, instead of attempting to mobilize nonvoters or persuade undecided voters to their cause. The researchers noted that Web sites representing candidates and nonpartisan political groups generally failed to provide opportunities for interactivity or to encourage communication from site visitors. In this way, the sites advocated a particular view without inviting or allowing response by site visitors, functioning much the same as traditional print publications have done in previous election cycles. This study is significant to the dissertation for the support it provides that Web site usage may be focused on polarizing or fragmentizing effects rather than in synthesis of views, both from a content and structural sense.

Davis, Elin, and Reeher (2002) observed that the most important dimensions of the 2000 election cycle was not the raising of money or collecting of votes but the formation of online communities of like-minded people. Because of this, the authors foresaw a bright future for grassroots political action and community building using the Internet. Mack (2004, p. 74) echoed their optimistic view, suggesting that the Internet can be a "gateway for political community, offering real promise for a new paradigm of political discourse and governance of societies in the twenty-first century." The new paradigm will be found in a new freedom of expression that is both proactive and reactive in nature.

Ward, Gibson, and Nixon (2003) also note the Internet's potential to "provide a platform for many more single-issue networks and protest campaigns providing increased choice for citizen activity and increasing competition for parties" (Ward, Gibson & Nixon, 2003, p. 4). Their views mesh with Bimber (1998), who argues that in a new network society, 'thin' communities will proliferate, in which associations of individuals whose private interests are complementary will flourish, while 'thick' communities, based on pursuit of collective goals beyond the sum of mutual private interests will diminish.

Amid the contrasting views, what is certain is that the Internet enables people who are highly engaged in politics to obtain more information about more specific areas and to obtain it more quickly than ever before. This usage has the potential for broad, societal ramifications. Echoing Barber's dystopian concerns, Frantzich (2002) notes that use of the Internet for political information may drive new imbalances in information access, ones that are largely self-imposed. Individuals who find political issues and debates highly salient will take advantage of the choices and abilities that new technologies offer. Those with little interest in politics may actually experience a reduction of exposure to political information, given the choices these individuals make among information channels and media. While the technologies of the Internet have the potential to empower, in Frantzich's (2002) view, patterns of their use generally reinforce existing power holders and the outlooks they prefer.

Margolis and Resnick (2000) argue that the Internet has largely been normalized as it became intertwined with daily life for many U.S. citizens. Instead of developing into a revolutionary center of a new politics, citizenship, and democracy, the Internet has

instead grown to resemble the real world, including the conduct of ordinary politics. The one potential exception to this, the authors note, is that the Internet may facilitate the forms of democratic politics favored by activists, a style of politics focused not on voting and election cycles but on influencing the political process and advancing political strategies.

Here, the Internet offers striking advantages of access to "up-to-the-minute information on a huge variety of topics that are relevant to developing their own policy positions and political strategies," Margolis and Resnick (2000) note. "Policy-relevant research developed by one group and put up on the Web also can be of great value to other groups that share their general political orientation" (Margolis & Resnick, 2000, p. 17). In these ways the structure and capabilities of the Internet can aid and advance the goals political activists hold for themselves and also enable them, through networks of influence, to mesh with the goals and agendas of other activists, creating the potential for new and far-reaching networks of influence and alliance on political issues.

The two authors note the particular power that the Internet, specifically the World Wide Web, holds for political interest groups and that the Internet may have its greatest potential for this category of political users, as opposed to uses in election campaigns and by political parties. Web sites, Margolis and Resnick (2000) observe, are generally central to understanding of the current Internet, as newsgroups and mailing lists were central to conceptions of the network in its earlier growth. The latter types of activity were more interactive and fluid. Web sites, in contrast, are structured more formally and, while open to all visitors, generally limit freedom and expression:

> The Web…creates a very different type of political experience, unlike the amorphous dialogue of newsgroups and listservs, Web sites are designed to be graphic, attractive, and informative. Politics on the Web is structured in a double sense, presenting a structured experience and reflecting the organized structure of pluralistic political life in the real world. It is truly a creature of modern democratic politics (p. 5).

By extension, Margolis and Resnick express the belief that the core audiences on the Internet open to persuasion by organized groups, if such audiences exist at all, lie not in newsgroup users but in an amorphous collection of Web surfers and individuals searching for information. This suggests the value that Web-based communication may hold for issue advocacy, in terms of reaching and potentially persuading others to a cause. The belief that issue advocacy on the Web is meaningful and important is central to the research questions and hypotheses that guide this dissertation's investigations.

From Margolis and Resnick's (2000) comments and those by Bimber (1998), Frantzich's (2002), and Ward, Gibson, and Nixon (2003), the Internet appears well-positioned to serve as a valuable tool and medium for political issue advocacy. The authors' observations provide theoretical grounding for this study's inquiry into how Web sites are used for discussion and debate of political issues. The relative scarcity of empirical studies on the topic suggests that this dissertation will fill a needed gap in the literature, both through its research findings and its methodology.

Social Activism on the Internet

While studies that document the Internet's uses for political issue advocacy are comparatively rare, the Internet has been a prominent tool and medium in a number of social movements, among them women's movements, environmental activism, and even an anti-globalization movement that used the global Internet network to advance its cause

(Castells, 2002). Others whose use of the Internet has been documented include homosexuals, ethnic groups, human rights activists, and groups opposed to the World Bank.

The Zapatista movement in the southern Mexican state of Chiapas drew attention as an early protest that made heavy and effective use of the Internet. In January 1994 an army of peasants took up arms and occupied seven villages in Chiapas. The uprising sought to obtain greater rights for peasants and indigenous communities who were being left behind in the social and economic development of Mexico. Among the studies published about the Zapatistas, Garrido and Halavais (2003) examined how online activism by the Zapatistas connected to a global support network through the Internet. Significantly, the authors found that the Zapatistas' inclusion of a women's network and also an environmental component helped strengthen the political protest's network of online activism by tapping into preexisting networks that were functioning online.

Another widely cited example of social activism occurred in 1990 when an activist community coalesced online and successfully lobbied against a planned rollout by Lotus Development Corporation of two CD-ROM products that contained direct marketing information on millions of Americans. Gurak (1996) analyzed the structure of the discourse that ensued as the online community grew, the attitudes that became evident, and the contrast in styles of communication used by protesters and by Lotus. Computer-mediated communication was effective in serving the protest, Gurak concluded, not only because of its "speed and the simultaneous nature of its transmission, but also because the medium encouraged a sense of community by focusing the values of conference participants" (Gurak, 1996, p. 268).

Gurak (1996) noted the inherent clash of tone between protesters, many focused on emotions, and the logical, business-like communications from Lotus Corporation, as well as the implications this disconnect suggested would occur as members of the public attempted to work with a corporation to reach resolution. She also observed that structural characteristics of online forums can influence how receptive or limiting an electronic forum is to open debate and discussion.

Gurak's (1996) observation suggests the value of investigating the degree of openness that exists for discussion and debate at Web sites in the issue networks that have formed surrounding Sections 214 and 215 of the USA Patriot Act. Are individuals and organizations allowing the potential of dissenting views through the structural characteristics of the Web sites or are they instead simply using the sites to argue one-sidedly their particular point of view? The study's broad first research question probes this and related issues.

In the 2002 text, *Future Active*, Meikle presented a series of case studies that explore the broadening field of Internet activism around the globe on social, political, and cultural issues. Among the examples he includes are Belgrade radio station B92's use of the Internet to subvert censorship attempts by Yugoslav President Slobodan Milosevic, use of a spoof McSpotlight Web site to criticize and debate the impact of McDonald's, and the rise of globally dispersed independent media. Meikle contends that it is the unfinished and open nature of the Internet that makes the network so conducive for activism and individual expression. Through the creation of open media spaces, people are able to make their own futures, and those futures may differ radically from the centralizing effects of corporate-controlled mass media.

Writing in a foreward to another collection of cyberprotest studies published in 2004, Dahlgren observed that, despite being threatened with government control on one front and commercialization via market forces on another, the Internet "still offers an incomparable communicative civic space. We observe the emergence of new, fluid publics, citizen networks, and affinity groups via the horizontal civic communication that it facilitates" (Dahlgren, 2004, p. xiii).

In this way, the Internet possesses the technological capabilities to function as a public sphere and space for debate, as did the town halls and squares during America's colonial period. Whether and to what extent people and organizations are using the network for these purposes in the United States has scarcely been addressed in the literature and is the core focus of this dissertation.

In an exploratory study of a cyberprotest by a Dutch women's movement, Edwards (2004) conducted in-depth interviews of 12 physical organizations to understand how they were using the Internet and to what extent new virtual organizations and operations had arisen from their online activity. Edwards classified the motivations for online involvement by the Dutch activists into three broad areas: management of frames, also understood as issue management; mobilization of resources; and maintenance of relations with the environment, understood as affiliate partners. Further, he found that the online presence of the Dutch women's groups reflected differences evident in the nature of the organizations they represented. Table 3.1 shows the differences he found.

Edwards' schema is important to this dissertation for the way it illustrates the varying purposes that can guide and organize an organization's online presence. Elements of issue management, mobilization of resources, and maintenance of relations with

Table 3.1. The organizational infrastructure of a social movement.

Organizations in physical space	Organizations in cyberspace
Social movement organizations	Platform sites oriented toward mobilization
Movement associations	Virtual communities
Supportive organization	Sites oriented towards information provision, information portals
Representation or umbrella organizations	Umbrella platform sites with a lobbying function

Source: Edwards, A. (2004). The Dutch women's movement online. In W. v. d. Donk, B. D. Loader, P. G. Nixon, and D. Rucht (Eds.), *Cyberprotest: New Media, Citizens and Social Movements*. New York: Routledge, 189.

affiliate partners may all come into play in varying measures in Web pages at an organization's Web site (Nixon, Ward, & Gibson, 2003). And, while Edwards does not develop the idea, it is possible, if not probable, that one motivation or need may have a constraining effect upon another. In instances of issue management, in particular, an organization—in cyberspace or in physical space—may find it necessary to moderate its views or pursuit of a position due to factors associated with other organizational dynamics, not the least of which are maintaining relations with affiliate partners and factors associated with its own overall image. In other words, if Organization X considers a section of the USA Patriot Act baseless and dangerous to democracy, it may choose to openly declare those opinions or it may choose to phrase them more cautiously out of concern about how the organization is perceived, about how its views may be judged in light of changing circumstances—additional terrorist strikes, for example—and for other factors that may not be at all clear to outsiders.

Similarly, the needs that guide an organization's online presence may drive differences in content, including the degree to which it focuses its resources on issue advocacy. An organization may choose to concentrate its online presence on content that serves its members and affiliates with the result that issue advocacy may only be lightly addressed, if at all. Swanson (2004) found this effect in a study of church Web sites involved in Christian apostasy, discovering that while the churches could use their Web sites for recruitment and self-defining purposes, most simply posted contact information and core details, such as the time and location of services. While bandwidth and server capacities may exert some constraint on limiting online content, as Swanson (2004) discovered, issues of vision, resources, and other dictates may guide the choices that

public interest and social movement organizations make in the forms and depth of content that they offer online.

These studies are noted for the way they suggest that a number of factors may come into play affecting how an organization chooses to communicate using the World Wide Web and its technologies on issues central to its interests. Factors as varied as political agendas, vision, and finite financial resources may affect what is, and is not, said as an organization communicates on a policy issue. These studies suggest the value of examining not only network dimensions of Web sites, but also their content, and, from Edwards (2004), the importance of frame construction.

In a case study of two grassroots activist organizations' use of the Internet, Hara and Estrada (2005) found differing patterns of linking activity. At one site, representing the group Stormfront, 87% of the links originated within the Web site. In contrast, only .04% of the links at MoveOn.org were self-referential. The authors infer that Stormfront appeared to be attempting to keep visitors within their site by limiting the number of external links, yet it came at a cost to credibility, they argue. The more active linking behavior at MoveOn.org, where links are to and from outside sources, suggests a more dynamic and credible organization, one with greater engagement, both by supporters and by the site's connections to others. Hara and Estrada caution that credibility of Web sites is determined not only by the number of links but also their quality, an area that is beyond the scope of their study and also beyond that of many link analysis studies, including this dissertation. Their conclusions about credibility being influenced by patterns of in-linking and out-linking, however, are strongly relevant to this study. Organizations that outlink to others exist as actors in an issue network. Organizations that choose to offer only in-links

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or self-referential links consciously exclude themselves from online communities. Linking decisions are expected to be consequential to information flow in the online networks associated with public issues such as the USA Patriot Act.

Using issue network analysis, Huey (2005) analyzed Web site linking and performance of solidarity in global and local food movements. She identified a disparity between global discourse and local engagement—the global Web sites didn't contain local references—and found a similar disparity for local-based sites, that they didn't contain hyperlinks to global sites. She speculated that the disparity could be a result of 'ideological baggage' (Johnson, 2000, p. 78) in each organization that "may hinder the development of alternative strategies, cross-group coalition building, and creative approaches" (Huey, 2005, p. 124). This study and its findings suggested one of this dissertation's research questions and one of its hypotheses: the research question that asks whether some Web site types are more or less likely to network in the issue networks that surround Sections 214 and 215 of the USA Patriot Act; and the hypothesis that predicts that Web-based discourse from organizations is expected to contain more focused frames and involve a more limited number of frames in comparison to discourse representing individuals and forums.

Also relevant to that research question and hypothesis are two studies of virtual networks, one by Howlett (2002) and another by McNutt (2006). Howlett tested and found support for hypotheses associated with the notion that policy networks operate as two-tiered systems: a core discourse community that consists of actors associated through relationships based on identifiable interest affiliations and a more dispersed interest network composed of actors engaged in information exchange (Howlett, 2002). From a

longitudinal study of policy change in banking, education, trade, and transportation, Howlett developed a schema of four network types, each characterized by its permeability to new actors and ideas. Policy communities with tightly knit membership will exhibit strong cohesion and be insulated from outside influence; consequently they may have a more stable nature. Other, more open structures will be more permeable to other actors and influences. His notions of resistant and contested networks exhibit similar degrees of insulation and extent of symmetry involving network and community. Table 3.2 presents Howlett's schema of policy subsystem configurations.

McNutt (2006) applied Howlett's conceptualization to link analysis of four Canadian virtual policy networks, in areas of banking, agriculture, aboriginal, and women's issues. She found the schema useful in pinpointing core differences among the networks, including that of information flows, which she measured through hypertext linking patterns in the virtual policy networks.

Howlett's schema, supported by his network study and that of McNutt's, provides a useful organizing framework for this dissertation's evaluation of whether there are core differences in how established organizations communicate about the USA Patriot Act compared to how individuals and online forums communicate about the act, as evidenced through frame analysis and hypertext linking patterns. By their nature, some organizations may be more open than others to new actors and ideas, and the study's exploration of issue networks formed around Sections 214 and 215 addresses this topic.

In a study of outlinking practices by National Assembly members in South Korea, Park, Thelwall, and Kluver (2005) found that outlinks to political parties were the most frequent type of link, followed by outlinks to the National Assembly itself, local

Table 3.2. Howlett's schema of policy subsystem configurations.

Network's degree of insulation from community			
		High	Low
Extent of symmetry	High	Closed	Resistant
	Low	Contested	Open

Source: McNutt, K. (2006). Research note: Do virtual policy networks matter? Tracing network structure online. *Canadian Journal of Political Science, 39*:2 (June 2006), 398.

governments, and central government bodies. By contrast, the Web sites rarely hypertext linked to civic and advocacy groups. This study is significant for the additional support it provides for suggesting that there may be core differences in how organizational actors link to one another in issue networks surrounding Sections 214 and 215 of the USA Patriot Act.

The reviewed literature suggests that a number of factors may come into play as individuals and, particularly, organizations communicate on contested issues. Linking behavior may reflect an organization's degree of openness to outside actors and ideas. Studies of social activism suggest the Internet remains an invaluable network of incomparable openness for social activist purposes. Whether and to what extent the network is being used for political activist purposes returns to the notion of social shaping of technology: are individuals and organizations finding the network valuable for those purposes? That question is central to this dissertation's investigations.

The Internet's Evolving Use as a Political Channel of Communication

Political usage of the Internet connects to the broader issue of the network as an evolving media ecology. Early conceptions of the network envisioned it as an information superhighway or a broadly functioning public information utility. As the Internet developed, its commercial and entertainment functions have, arguably, far outpaced its noncommercial social uses. If the Internet is not being put to greater use in the arena of politics, its absence may suggest or confirm, depending upon one's point of view, that the evolving global information utility is functioning more narrowly than initially foreseen, indicating that significant realms of pro-social uses of the Internet are

largely being subsumed by commercial and entertainment functions (Marvick, 1970; Nie, 1971, de Sola Pool, 1984).

An absence of activist and political usage also invites speculation about social sense-making of technologies. Just as the invention of the telephone developed to serve needs other than those expected by its inventors, the functions and purposes of the Internet may not seem to political activists to be the tools and medium they are seeking for their work (MacKenzie & Wajcman, 1985; Mackay & Gillespie, 1992; Standage, 1998). Indeed, recent attention given to wireless text messaging and customizable Web feeds using RSS (Real Simple Syndication) technology suggests that new, smaller media may be gaining favor over the Internet among activists (CNN.com, 2004; Rheingold, 2002; Bajak, 2004). Answers to questions about how the Internet is presently being used for political purposes would appear to hold significance to understanding of contemporary politics as well as to future development of the network itself. These are the larger concerns and issues that guide this dissertation's inquiries.

Contemporary Interest Groups, Political Activism, and the USA Patriot Act

Introduction

Participation is central, if not essential, to the functioning of a democracy. The term democracy is derived from ancient Greek *demos* meaning common people and *cracy* indicating government or rule. As Frantzich (2002) notes, any democracy worthy of its name depends upon a relatively large proportion of its citizenry gathering information and gaining understanding about "the nature of societal problems (the agenda), the

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options for improvement (the alternatives), the identity of those who will make the ultimate decisions (the targets), and the effective strategies for influencing those decision makers (the means)" (Frantzich, 2002, p. 8). These are the elements of political communication and persuasion, and they are integral to contemporary interest group and political activism.

Ancient Rome gave us the example of Roman General Lucius Quinctius Cincinnatus, who laid down his plow and left his farm in 485 B.C. to serve his nation. After completing his civic duty, he returned home and resumed farming (Sitton, 2004). Like Cincinnatus, effective and willing citizens who flow in and out of political activism are the lifeblood of democracy. These individuals inform themselves about societal issues of concern, contact governmental officials, and support candidates and actions representative of their views. Without their participation, government risks becoming a tool for elites and is vulnerable to views and interests that may not reflect those of the population at large. Consider Germany's Weimar Republic and the rise of Adolf Hitler, for example. Nonparticipation in the political process creates a void in which others can triumph, sometimes at considerable cost to society. Recent examples of this can be found in the lack of oversight and vigilance that allowed Enron to manipulate the nation's energy markets and instances of insider trading and corporate malfeasance that show how quickly our economic and political systems can run amok when balance and control are lacking.

While participation is viewed as critical to the functioning of a democracy, pinpointing that involvement can be difficult for researchers in the best of circumstances. Writing in the sixth edition of Interest Group Politics, editors Burdett Loomis and Allan

Cigler (2002) compare the challenge of determining the actual influence of modern

lobbying on the political process to "finding a black cat in a coal bin at midnight"

(Loomis & Cigler, 2002, p. 28). Nevertheless, the two scholars agree that some precepts

can be accepted as true: more groups are engaged in lobbying than ever before, and the

forms that their lobbying takes are also greater than ever before. Computer-based direct

mail campaigns that encourage grassroots activism exist side-by-side with traditional

forms of lobbying, such as testifying before legislative bodies and influence exerted

through relationships that lobbyists cultivate with power brokers.

Legislators are under increased pressure, partly because of congressional reforms

that occurred in the 1970s that greatly expanded the number of access points available to

lobbyists and also because of televised proceedings and roll call votes that have made the

legislative process more transparent. The rapid pace of these activities in combination

with a faster flow and larger volume of information taken into account during decision-

making processes challenge legislators and lobbyists alike to keep abreast of

policymaking actions and developments (Loomis & Cigler, 2002).

In evaluating the impact of interest groups upon the political process, Cigler and

Loomis (2002) cite four broad trends, each interrelated with and strengthening the other:

• More interests are engaged in influencing policy outcomes, with activists more closely

monitoring developments and mobilizing to action more quickly than ever before. "The

combination of monitoring and action is a worthwhile investment for most interests, "

Cigler and Loomis note (Cigler & Loomis, 2002, p. 381);

• The divide between outside lobbying, such as public relations and grassroots contacts,

and internal lobbying, through personal relationships, is disappearing;

• The separation between the politics of the election process and of policymaking is also disappearing, in part as an extension of the permanent campaign mode that appears to govern federal elections and, in part, due to a greater acceptance of the concept of campaigns as being central to broad lobbying efforts and strategies; and

• Political parties and interest groups are merging into holistic entities.

While the consequences of these developments are unclear, two points are apparent. Greater access exists for grassroots lobbying and activism by individuals and social movement organizations, and information technology such as the Internet, can be influential in the acceleration of political activity. These tendencies would appear to make the Internet ripe for political communication and issue advocacy and predispose the Internet to be an active channel for such activity in 2005 for discussion and debate of the USA Patriot Act.

The USA Patriot Act, its History, and Development

In 2001, a sweeping piece of federal legislation was enacted that would appear to offer an excellent window of opportunity through which to probe political communication and issue advocacy on the Internet. The USA Patriot Act, known formally as the Uniting and Strengthening America by Providing Appropriate Tools Required to Intercept and Obstruct Terrorism Act, is an unparalleled piece of federal legislation that arose from equally exceptional events. Just eight days after the attacks on the Pentagon and the World Trade Center that occurred on September 11, 2001, the George W. Bush Administration issued the legislative proposal that would become the USA Patriot Act.

The legislation swept through the House of Representatives and Senate, passing within a few weeks following the terrorist attacks with overwhelming bipartisan margins—98–1 in the Senate and 356–66 in the House—and President Bush signed the act into law on October 26, 2001. At the signing ceremony, Bush said the purpose of the legislation was to pursue, defeat, and bring to justice the terrorists who had declared war on the United States. His message, noted Ball (2004), reflected a new national security policy of preventative action against U.S. enemies. U.S. Attorney General John Ashcroft said the act embodied two overarching principles: airtight surveillance of terrorists and speed in tracking down and intercepting terrorists.

At 342 pages and more than a hundred sections, the bill was lengthy, and journalists and special interest groups questioned whether many in Congress had read it in its entirety (Kirtley, 2004). It was clear that the act was fast tracked through the legislative process, and it was unusual that no testimony from experts or potentially affected parties was sought, nor heard, and no conference or committee reports were issued. Customarily testimony and reports are part of the process in crafting any major legislation (Mack & Kelly, 2004). To help speed passage of the legislation, as well as in acknowledgment of congressional concerns about the proposed legislation's intrusion into the civil liberties of U.S. citizens, sunset provisions were attached to some of the bill's most controversial sections, including Sections 214 and 215, as well as 13 other sections, mandating that they become inactive if not renewed by December 31, 2005 (Ball, 2004).

Even with a potentially limited lifespan for some of its key sections, the USA Patriot Act appeared to have far-reaching implications for criminal investigations and

intelligence gathering and also to possess the potential to constrain the privacy rights of

U.S. citizens in significant ways. In broad terms, the USA Patriot Act:

• Expanded terrorism laws to include domestic terrorism, making it possible to use

surveillance, wiretapping, and other methods to investigate domestic actions viewed as

suspect (Section 203).

• Expanded the ability of law enforcement agencies to conduct secret searches, giving

them powers of telephone and Internet surveillance, and access to personal records with

minimal judicial oversight (Sections 201, 214, 215, 216).

• Allowed FBI agents to investigate citizens for criminal matters without probable cause

if the investigation is deemed for intelligence purposes. The law also empowered the FBI

to order any person or entity to surrender tangible things if the FBI specifies that the

order is for an authorized investigation to protect against international terrorism or

clandestine intelligence activities (Section 215).

• Allowed non-citizens to be jailed based on suspicion and to be denied re-admission to

the U.S. The law also allowed suspects to be detained in six-month increments that could

be extended with minimal judicial review (Section 1006; Stat. 344).

• Relaxed restrictions on information sharing between U.S. law enforcement and

intelligence officers and authorized roving wiretaps so that law enforcement can obtain

court orders to wiretap telephones that a suspected terrorist might use (Section 206).

Two of the act's most controversial provisions are Sections 214 and 215. Section

214 allows the government to obtain wiretaps, known as pen register and trap and trace

devices, under the Foreign Intelligence Surveillance Act (FISA) for cases of a foreign

intelligence or criminal nature. Warrants obtained under FISA are subject to much lower

probable cause standards than regular warrants, and the greater latitude that this section grants the government means that American citizens are potentially subject to the control of a secret court system whose very operation is the antithesis of the nation's accusatory system of justice (Mack & Kelly, 2004). Section 214 allows the government to obtain orders for electronic surveillance if they are sought as part of an investigation to obtain foreign intelligence information not about a United States citizen or to protect against international terrorism or clandestine intelligence activities, as long as the investigation of a U.S. citizen is not conducted solely upon the basis of activities protected by the First Amendment to the Constitution (The USA Patriot Act, 2001).

Prior to the USA Patriot Act, FISA standards for pen register and trap and trace devices required that the telecommunications devices be restricted for contact with agents of a foreign power engaged in international terrorism or clandestine intelligence activities. Section 214 also allows FISA orders to be obtained to capture an expanded range of data, including computer source and addressing information, again with the requirement that such orders cannot be directed against American citizens based solely upon activities protected by the First Amendment.

Section 215, described by critics as the library provision and arguably the most hotly contested of all the USA Patriot Act's provisions, grants the government access, through secret warrants, to library, bookseller, medical, and other sensitive, personal information under FISA and related foreign intelligence authority. Implications of Section 215 include that the FBI need not show probable cause, nor even substantive evidence of belief of criminal activity to obtain records of citizens and permanent residents; that the FBI may investigate citizens based in part on their exercise of First

Amendment rights and it can investigate non-citizens solely on the exercise of First

Amendment rights; and that those served with Section 215 orders are prohibited from

disclosing the fact to anyone else, meaning that is unlawful to notify individuals that their

privacy has been compromised. The American Civil Liberties Union (ACLU) contends

that provisions of the act threaten rights provided under the First Amendment, Fourth

Amendment, Fifth Amendment, Sixth Amendment, Eighth Amendment, and Fourteenth

Amendment (ACLU, 2002).

Members of the Bush Administration have responded to objections about the

USA Patriot Act by charging that opponents to the act, Section 215 in particular, are soft

on terrorism and want to provide a safe haven to terrorists in bookstores and libraries

(Hoover, 2005). An online magazine for information executives noted that the USA

Patriot Act was "becoming one of the most polarizing pieces of legislation ever" (Varon,

2003, p. 1). "Today, the law is viewed as either an important tool in the war on terrorism

or a pernicious threat to civil liberties—depending on whom you ask" (Varon, 2003, p.

1).

While debate over the act by members of Congress was not evident and was

potentially limited prior to the law's passage, criticism from outside Congress was

immediate and widespread, and it has continued across the intervening four years.

Reflecting upon the charges leveled against the act, a *Washington Post* reporter wrote that

the savage attacks of September 11, 2001, "didn't just set off a national wave of

mourning and ire. They re-ignited and reshaped a smoldering debate over the proper use

of government power to peer into the lives of ordinary people" (O'Harrow, 2002, p. 14).

Hundreds of activist groups have voiced concern over the act and its implications

for civil liberties (Ball, 2004). Those who have expressed concern include the ACLU, the

American Library Association (ALA), and the Electronic Freedom Foundation. Others

tied to the legislation, either in protest or through advocating support for the act, include

the American Conservative Union, the Cato Institute, the Center for Constitutional

Rights, the Center for Democracy and Technology, the Center for National Security

Studies, the Center for Public Integrity, the Center for Strategic and International Studies,

the Federalist Society, the Friends Committee on National Legislation, the Heritage

Foundation, and the National Association for the Advancement of Colored People

(NAACP).

Concerns over provisions of the act cross traditional party lines and have led to

previously unlikely coalitions among liberals and conservatives in efforts to lobby

Congress to repeal or modify key sections of the act. One such unlikely alliance occurred

in 2003 when former U.S. Congressman Bob Barr, a legislator who voted for the USA

Patriot Act, is active in the American Conservative Union, and serves as a board member

of the National Rifle Association and the Patrick Henry Center, joined with the ACLU in

its campaign calling for reform of the USA Patriot Act (Carlson, 2003).

Ball (2004) notes that others who have voiced opinions on the USA Patriot Act

include legislators, individuals, the news media, and even the Inspector General's Office

within the Department of Justice, and the U.S. General Accounting Office. Tomasky

(2003) commented upon the unusual alliances occurring among business and technology

groups, social action groups, and highly conservative, libertarian organizations—groups

that previously would have seemed to have little in common. Coalitions also occurred

including the Campaign for Reader Privacy, a national petition drive initiated by the

ALA, the American Booksellers Association, and the PEN American Center (Starr,

2004).

From this, it is evident that reactions to the act have forged unusual and, in some

instances, unprecedented links among individuals and social movement organizations.

Communities and states have also joined in the fray. Three states and more than 363 local

governments in 35 other states were cited in 2004 as having passed resolutions or

ordinances expressing support for preserving civil liberties by ignoring acts perceived as

potentially unconstitutional in association with USA Patriot Act provisions (Vlahos,

2004; Ball, 2004).

Criticism of the USA Patriot Act has focused on distinct controversies associated

with the legislation:

• Conflict with constitutional protections. Civil libertarians perceive significant threats

posed to personal rights and freedoms found in the First, Third, Fourth, Fifth, and Sixth

Amendments of the Bill of Rights. These include freedom of association, freedom from

military intrusion, freedom of information, freedom of speech, the right to legal

representation, freedom from unreasonable searches, the right to a speedy and public

trial, and the right to liberty (Ball, 2004; McCoy, 2003).

• Supersession of state laws. Forty-eight states have enacted or strengthened laws

protecting library patrons' privacy in response to the FBI's Library Awareness Program.

In general these laws ensure that investigators must meet the probable cause standard to

obtain court-ordered disclosures (Starr, 2004; Sanchez, 2003; Sommer, 2002).

• Weakening of important democratic concepts. The separation of powers, checks and balances, and judicial review have been altered by provisions of the act. Some argue these changes were needed and necessary to national security. Others perceive them as small changes that over time may have significant impact on America's "cultural and legal essence—our DNA as a nation" (Friedman, 2005, p. A21; Ball, 2004).

• Restriction on intellectual freedom. Concern exists among librarians, booksellers, and others over the chilling effects the USA Patriot Act and the atmosphere of surveillance it fosters may have on intellectual freedom and the presumption of innocence connected to what people read or view (Starr, 2004; Caruso, 2003).

• Perceptions of racial profiling and targeting. Muslim organizations, the NAACP, and others have voiced concern that the USA Patriot Act has facilitated efforts using racial profiling and targeting of minorities and of members of religious faiths. The secrecy that cloaks the use of the USA Patriot Act has made the allegation problematic to prove; however investigations of Arab students, mosques, and incidents in which airline passengers were removed or harassed offer support for these concerns.

• Concern over vagueness in the language of the USA Patriot Act and the implications it may have in legal proceedings and interpretations. Attorneys and law associations have expressed concern over vagueness in the legal language of the act and issues such as legal jurisdiction associated with high-profile cases of individuals held on suspicion of terrorism.

• Conflicting information about how the USA Patriot Act has been used. The Federal Bureau of Investigation and Department of Homeland Security have resisted efforts to obtain information on how provisions of the act have been applied and used.

• Changes in FISA restraints on the federal use of wiretaps. Civil libertarians have contended that the absence of checks and balances and probable cause may lead to unrestrained wiretapping use, as well as usage in cases that have little or nothing to do with international terrorism or spy investigations.

• Absence of due process and aggressive treatment of immigrants, suspects, and citizens. Newspaper reports of alleged infractions of the law have fueled concern over this issue among some individuals and organizations.

• Inability to sunset some USA Patriot Act provisions. Congress' inability to sunset some provisions of the act concerns some legislators and legal analysts, including a few members of Congress and the Senate who voted for the act in 2001 (Ball, 2004).

Protest efforts have continued since the law's inception, both in "real space" and on the Internet. Petition drives and referendums have occurred in cities across the nation, and activist material is also prevalent on the Web. A Google search of the phrase "Patriot Act" on March 7, 2005 found 2,120,000 Web pages using the term, signifying a substantial volume of content that has been written and posted on the Web about the act, its implications, and potentials.

In 2003, the act was becoming an issue in the run up to the 2004 presidential campaign as well as on Capitol Hill due to three proposed bills seeking to amend or repeal sections of the law (Varon, 2003). In 2004 controversy arose over conflicting statements regarding the use of surveillance powers granted by Section 215. Attorney General John Ashcroft publicly claimed that the power had never been used. Then records released by the Federal Bureau of Investigation (FBI) under court order revealed that the FBI had invoked the provision only weeks before Ashcroft's public declaration.

An internal FBI memo included in the released documents provided evidence that, in the agency's view, Section 215 can be used to obtain information about innocent people. This contradicted repeated government assertions that the section could only be used against suspected terrorists and spies (Domi, 2004).

In 2005, the ALA provided further evidence undermining Ashcroft's assertion that Section 215 had never been used. An ALA survey of librarians found at least 200 instances since 2001 in which police were said to have targeted libraries in searches for information (Hoover, 2005). These developments show that the USA Patriot Act has remained a contested piece of legislation and subject of scrutiny since its inception in 2001.

"When Attorney General Alberto Gonzales, who is not exactly a renowned civil libertarian, says the USA Patriot Act may need some adjustments, it clearly has serious problems," commented an editorial in *The New York Times* published in 2005. "The debate over the USA Patriot Act is too often conducted on bumper stickers, in part because the details are so arcane. Parts of the law are reasonable law enforcement measures that have generated little controversy. But other parts unquestionably go too far, and invite the F.B.I., the C.I.A. and the White House to spy on Americans, and suppress political dissent, in unacceptable ways" ("Revising the Patriot Act," 2005, p. 4-11). By July 2005, National Public Radio reported that as Congress debated whether to renew key provisions of the USA Patriot Act, outside interests were intensely involved. One strategy the activists had begun to deploy in their efforts to exert influence were radio advertisements both for and against renewal of the act (Abramson, 2005a).

In 2005 Congress and concerned individuals and organizations were preparing to engage in renewed discussion of the USA Patriot Act as decisions are reached over whether key provisions subject to sunset should be renewed, altered, or allowed to expire. President Bush had expressed his intent to use political capital he accrued during the 2004 election to push for renewal of the act, and the Bush Administration's two top law enforcement officials were urging Congress to renew every provision of the act. Federal Bureau of Investigation (FBI) Director Robert Mueller was also asking that lawmakers expand the FBI's ability to obtain records without first asking a judge. Also in 2005 key protest organizations, among them the ACLU, were already using the media to call for repeal of USA Patriot Act sections.

Given the controversy that has surrounded the USA Patriot Act since 2001, the forces in play in 2005 would appear to offer an unparalleled opportunity to explore how the Internet is being used to foster and frame discussion over political issues and debates associated with a highly controversial federal act. Structural dimensions of the online discussion would seem to hold bearing and consequence to the Internet's realization of being a network for political communication and its continued development as a media ecology. How individuals and organizations frame their discussion of the USA Patriot Act can provide a measure of the potential for compromise and consensus building on highly charged political issues.

This dissertation asks how we as a society are using the Internet to wrestle with issues encompassed by the USA Patriot Act. The answers, as the literature review has shown, are important to the structure, functioning, and future role of the Internet, as well as to how our society finds balance on divisive public issues—most immediately to the

balance we strike embodied by the USA Patriot Act, between relinquishing personal liberties for greater security. The extent to which diverse interest groups interact with one another as evidenced through online exchange and hypertext links offers a measure both of the value these organizations are finding in the technology as well as the nation's capacity to grapple with and reach decisions on critical issues that almost certainly will arise in the years ahead, as the U.S. and world move further into an unpredictable era of finite natural resources, divisive issues of morality, and volatile international relations. These are the issues that this study explores through framing and linkage analysis.

Discussion of Research Questions

The preceding sections and chapter have explained the theoretical foundations and empirical studies that inform this study. Given the conflicting views over the Internet's potentials for community formation and political communication and the relative absence of empirical studies focused on those issues, it is important to understand how individuals and organizations are framing their views on a contentious issue and how they are using the structural dimensions of the Internet to support their communication.

To contribute knowledge to these areas, this dissertation employs techniques derived from interactional communication and social network analysis as it investigates structural dimensions of online debate and communication concerning Sections 214 and 215 of the USA Patriot Act. The study's frame analysis assesses the unique ways in which people construct, manage, and convey frames about the two sections and the extent to which overlap would appear to exist among the views they are expressing. Such overlap is viewed as a measure of the potential for compromise or coalition building

among the activists using the Internet to communicate about the USA Patriot Act

sections. The study's issue network analysis probes the development of online

community centered around Sections 214 and 215. The study's research questions and

hypotheses are rooted in the theoretical perspectives of frame and issue network analysis.

The Research Questions and Hypotheses

This study combines multiple research questions and hypotheses to triangulate on

the issues that it explores. The following research questions and hypotheses are used, in

part to provide overlap of answers, in part to approach issues from multiple angles.

*RQ1: How are Web sites used for the discussion and debate of public issues, such
as the controversies surrounding Sections 214 and 215 of the USA Patriot Act?* Answers

to this broad question will be derived from descriptive and quantitative frame analysis of

Web-based discourse about Sections 214 and 215 and issue network analysis of the

degree to which social networking appears to be occurring at Web sites where discussion

of the two sections is taking place. These answers have implications for the Internet's

facilitation of social debate and action.

*RQ2: What kinds of frames were used to communicate views about Sections 214
and 215?*

*H1: As controversial issues, Section 214 and 215 should engender multiple,
complex, and distinct frames rather than simple, limited single frames.* Nelson and

Oxley's (1999) conceptualization of issue frames suggests that the way individuals and

organizations will frame complex issues, such as Sections 214 and 215, will involve

multiple frames and potentially overarching frames that contain multiple elements.

H2: Given their different focus, Sections 214 and 215 are expected to involve differing frames in general, although with a shared civil liberties issue frame, reflecting one core commonality. Because frames represent a sense-making action on the part of individuals (Goffman, 1974) and may also involve dimensions of frame amplification and frame transformation (Snow et al., 1986), it is predicted that discourse concerning Sections 214 and 215 will engender different frames overall, reflecting their different orientations. However, a shared master frame of civil liberties is also expected, given that debate over the USA Patriot Act has focused heavily on civil liberties themes.

H3: Web-based discourse from organizations is expected to contain more focused frames and involve a more limited number of frames in comparison to discourse representing individuals and forums. Studies using frame and issue network analysis have suggested that some organizations have a tendency to not reach broadly on issues, to have a narrower focus (Howlett, 2002; Huey, 2005; McNutt, 2006; Swanson, 2004). The freedom of discourse allowed by blogs and forums is expected to result in a broader range of discourse and discussion reflected by frame number and type at those sites.

RQ3: What kinds of issue networks have developed surrounding Sections 214 and 215?

H1: Because Section 215 has broader ramifications for a greater number of stakeholders, its issue network is predicted to contain more nodes and edges than that of Section 214. In web graph analysis, nodes are Web sites and edges are hypertext links. The greater number of stakeholders potentially affected by Section 215 is expected to be reflected in a more complex issue network of nodes and edges than that of Section 214.

RQ3a: Do the issue networks for Section 214 and 215 cluster around like sites that express similar views, or do they link diffused views? This question addresses a core issue about whether the Web, through its technologies, is helping to fragmentize, polarize, or synthesize discussion and debate over public issues. As the study's review of literature has shown, theorists disagree over the impact of the network. This study's analysis offers an empirical measure of the Web's effects.

RQ3b: In the issue networks, are some Web site types more or less likely to network? Based on the results of the web graph analysis, can conclusions be drawn over the types of Web sites most likely to link to one another? This question offers a secondary measure of whether the Web is facilitating the fragmentation, polarization, or synthesization of discussion and debate.

Contributions of this Study

The research of this study will add to knowledge of the Internet's use and perceived value for political communication and social activism. Few, if any, studies have probed political uses of the Internet through analysis of both structure and framing using the approaches of this dissertation. The study will contribute empirical data to a stream of literature that is generally speculative and theoretical in nature in discussing the Internet's facilitation of political issue advocacy. Further, the study will contribute understanding of online political communication over a highly contested issue during a period in which the Internet is accepted to be a widely accessible and maturing medium in the United States. In this way, the study's forms of analyses could be used to model

activism on other events. The study's effort to integrate frame analysis and linkage analysis is a contribution to both research theory and methodology.

With reference to the Internet, the study will contribute understanding about how individuals and organizations are using the capabilities of the World Wide Web as a tool and medium to communicate on a divisive and politically charged issue. The information is valuable for the insight it provides into the evolving media ecology of the network. On this topic, the understanding that this study contributes may foretell how the Internet may be used in the years ahead, in particular when situations or crises occur that confront society to find understanding and consensus on complex, multifaceted issues.

In these ways, the study will make contributions about the understanding and use of the World Wide Web for the discussion and debate of public issues. The dissertation's methods of inquiry bring together dimensions of two theoretical perspectives, frame analysis and issue network analysis. The following chapter, Methods, describes in detail how methods derived from these perspectives were applied in this study's investigations

CHAPTER IV
METHODS

This study used three different methods to investigate online discourse associated with Sections 214 and 215 of the USA Patriot Act. Figure 4.1 identifies the three components. Descriptive analysis was used to explore and characterize the text, including to descriptively identify frames used in reference to Sections 214 and 215. A quantitative frame analysis was also used to probe for the existence of frames, providing a secondary, wholly objective, measure. In the study's third component, an issue network analysis was performed that identified and quantified the hypertext links connecting actors in issue networks focused on Section 214 and Section 215 of the USA Patriot Act.

This chapter begins with an explanation of how concepts were operationalized, followed by discussion of the target population, sampling procedures, and issues of coding, measures, and observations associated with applying the three measures. Figures are used to illustrate the processes and work flow.

Operationalization

While the Internet contains many forms of content, among them mailing lists, e-mail, and news groups, a decision was made to focus on publicly available World Wide Web sites for their accessibility and for their inherent ability to support linking behavior in overt, measurable ways. The presence or absence of links and content focused on Section 214 or 215 became the subject matter of this dissertation's studies. Publicly available Web sites were understood as those accessible by the search engine Google (http://www.google.com), which at the time of this study was widely regarded as the

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┌─────────────────────────┐       ┌─────────────────────────┐
│   Descriptive analysis  │       │  Quantitative analysis  │
│   of Web-based text     │       │   of Web-based text     │
└─────────────────────────┘       └─────────────────────────┘

        ┌─────────────────────────┐
        │   Issue network analysis │
        │   of links between Web sites │
        └─────────────────────────┘
```
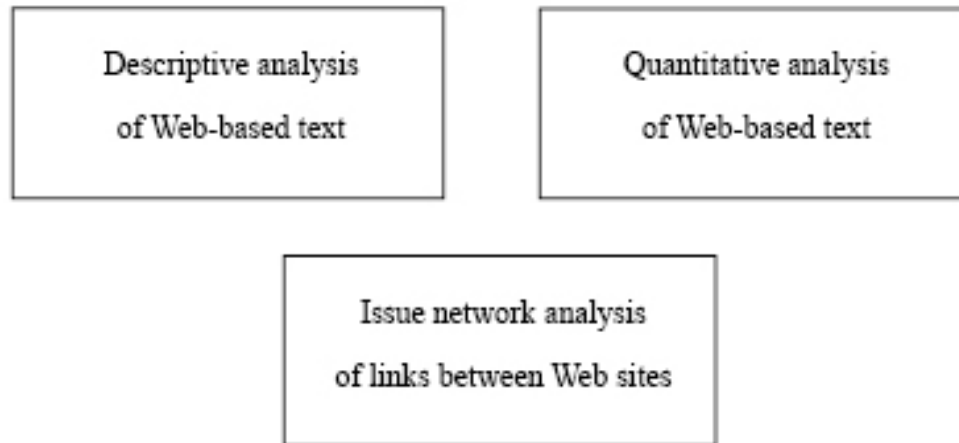
Figure 4.1. Three methods were used in the study to triangulate on issues associated with Web content and structure.

most prominent search engine and was generally credited as having the most comprehensive collection of documents.

Target Population

Discussion about the USA Patriot Act has continued since the legislation's formulation in the aftermath of the terrorist strikes on the United States on September 11, 2000. A search of the World Wide Web conducted on March 7, 2005, using the search engine Google found 2,120,000 Web pages using the phrase "Patriot Act," which suggested the existence of a large number of Web pages containing mentions of the act. Because the study's interest was on current discussion spurred by the legislation's scheduled sunsets on December 31, 2005, a decision was made to restrict the target population to current Web sites.

The study chose the search engine Google to be the tool used to locate potential Web pages for inclusion in the analysis. While the algorithms Google uses to rank pages are proprietary and not fully available to the public, it is known that factors such as links by others to a page and the prominence of those linking pages influences how Google ranks search results. Those factors should lead to search results that contain Web pages viewed as central or leading authorities on a subject, as well as to other, less highly ranked Web pages that represent other, less central, sources of information or opinion. Such a span was desired, because the study sought to sample as broadly as possible across pages of varying degrees of prominence.

Another factor that led to Google's selection as a tool for the study was the range of options that Google provides to users on its advanced search Web page. To restrict

results to current Web pages, an option in Google's advanced search to return only pages updated in the past three months was chosen.

A pilot study was used to determine the criteria to select Web pages for inclusion in the study. Inspection of search results obtained using Google found that some Web pages focused on the USA Patriot Act contained legal analyses but offered no value judgments about the act. Because the study's focus is on debate concerning the legislation, it was decided to select only Web pages that communicated a discernible opinion or value judgment about the act and Section 214 or 215. This selection rule led to the exclusion of Web pages at online encyclopedias such as Wikipedia and also the exclusion of Web pages that merely republished the text of the legislation without expressing a viewpoint of their own about the act and/or Sections 214 or 215.

A second finding from the pilot study was that Google's search returns included articles from newspapers, television stations, and other news sources. The study's interest in identifying points of view that could be associated with Web pages and the individuals or organizations whom the sites represented led to a decision to exclude Web pages representing mass media from the study. Web pages that appeared to represent individuals (such as blogs) or organizations other than mass media that reprinted news stories were accepted into the study's sample so long as the pages included some commentary of their own that expressed a discernible opinion or value judgment about the legislation.

Two other rules were established based on the results of the pilot study. To maximize the representation of each sample, it was decided to include only one page tied to a base URL in each of the two samples of the study. Several Web pages for the

American Library Association, for example, appeared in Google's search results for

"Patriot Act" and "Section 215." Only one page from the core Web site was selected for

inclusion in that section's sample, however. This rule did not prevent the inclusion of

state or regional Web pages representing an organization, so long as their base URL

varied from that of the central Web site. Selection for inclusion in the Section 215 sample

did not prevent the same organization from inclusion in the Section 214 sample, if it

existed among the Google returns for that sample and if the randomization and

stratification processes selected it as a Web site for inspection and potential inclusion.

Using this rule, several Web pages associated with the Bill of Rights Defense Committee

were selected for inclusion in the study. Each, however, represented a different city or

region, and the URL varied accordingly.

The final rule established for the selection criteria was that Web pages that

presented their commentary as downloadable files, such as Microsoft Word documents or

in portable document format (.PDFs) but not in the regular text of the Web page were

excluded, since these formats were not easily viewable or searchable on the Web.

To summarize the discussion above, the rules for selecting a Web page for

inclusion in the study were derived from the results of a pilot study. Based on those

results, the rules used to select Web sites for the two samples used in the study were as

follows:

1. The Web page must contain text about the USA Patriot Act and the relevant section of

focus for each sample. This means Section 214 for the sample focused on that section,

and Section 215 for the sample focused on that section.

2. Text on the Web page must express an opinion or judgment about the USA Patriot Act and/or specific section (214 or 215). The opinion or judgment must extend beyond legal interpretations to express a discernible value judgment of one form or another.

3. The Web page must appear to represent an individual or organization. These may include, but are not limited to, public interest organizations, and educational, or governmental institutions.

4. Content at Web sites representing traditional, mass-media newspapers, television stations, and news networks was excluded for purposes of clarity. This decision was prompted by the study's focus on activist forms of communication concerning the legislation. The goal was to find Web pages whose views could reasonably be assumed to represent those of the person or organization the page represented. While reports by the news media on developments with the USA Patriot Act may contain opinions, the opinions cannot generally be assumed to represent the views of the media organization.

5. Web pages that offered information about the USA Patriot Act and relevant section in a neutral manner were excluded. These included Wikipedia entries and Web pages that merely republished the text of the USA Patriot Act or republished newspaper articles about the act without offering any value judgment of their own concerning the legislation.

6. In instances when Google identified several Web pages at the same Web site, only one from that site was accepted into the study's sample. Acceptance into one sample did not exclude an organization from also being accepted into the study's other sample.

7. Web sites that posted their commentary in rich text format, Microsoft Word documents, or in portable document format (.PDF) were not selected for inclusion. This

decision was based on the study's interest in finding Web-based content that was (a)

easily accessible by others and (b) capable of supporting hypertext linking activity.

The Google search results were accepted as starting points in searches for relevant pages

that fit the study's selection criteria. When another page at the URL to which a search

return pointed was found to more fully meet the selection criteria, that page rather than

the one appearing in the Google returns was chosen for inclusion in the sample. In this

way, the selection of content within a site was a separate process that enabled the most

optimal page at a site to be selected into the study. The flexibility of this approach

allowed a page at the Campaign for Reader Privacy, for example, to be chosen that had a

more full discussion of the USA Patriot Act and relevant section than the page returned in

the Google search results. A fuller discussion was desired to provide a greater amount of

text to serve the study's quantitative frame analysis.

Sampling Procedure

Key differences in emphasis by Section 214 and 215 of the USA Patriot Act

suggested that two samples of Web discourse should be established. Section 214's

emphasis on how investigators may obtain and use wiretaps, and Section 215's emphasis

on investigators' access to records suggested that different groups could be engaging in

debate over the legislation, and that the ability to compare discourse over the two sections

could yield useful information. For these reasons, a decision was made to establish one

sample of Web discourse focused on Section 214, and another on Section 215.

The search terms entered into Google consisted of the phrase "Patriot Act" and

"Section 214" for the Section 214 sample. For the sample focused on Section 215, the

phrases entered were "Patriot Act" and "Section 215." Placing quotations around the phrases indicated to Google to return only Web pages that contained the exact phrases. While some Web content undoubtedly discussed the legislation without using the precise phrases specified in the searches, it was believed that the terms would result in sufficiently large returns to support the study. A pilot study conducted in August 2005 confirmed that impression, with search returns ranging from a high of 45,000 for Section 215 in the .com domain to a low of 125 for Section 215 in the .edu domain.

Options in Google's advanced search were used to indicate that (a) pages containing the two exact phrases were sought, (b) that the search was restricted to pages updated in the past three months, and (c) that only results restricted to the domain .com were sought. Successive searches were then undertaken, changing the restriction to a different domain for each set of returns: .org, .net, .gov, and .edu. This approach was used to allow samples to be established by domain and to further support the study's goal to sample across top, middle, and bottom tiers of results. To establish the Section 215 sample, the searches were then repeated using the exact phrases "Patriot Act" and "section 215," limited to pages updated in the past three months, and restricted to domain .com. Successive searches were then conducted, changing the restriction to a different domain for each set of returns: .org, .net, .gov, and .edu.

Sampling across the domains and across the top, middle, and bottom tiers of results was undertaken to represent the span of discourse occurring about the USA Patriot Act and Sections 214 and 215 on publicly available Web sites. Figure 4.2 provides an overview of this and other steps in the sample selection process. To capture what a variety of individuals and groups were communicating on the Web about the USA Patriot

Search query terms
restricted by domain

Google

Search results

Stratification
and randomization

Inspection of
sampled Web pages

Selection for inclusion
in study

Section 214
sample

Section 215
sample

Page URLs submitted
for text capture

Web Devil
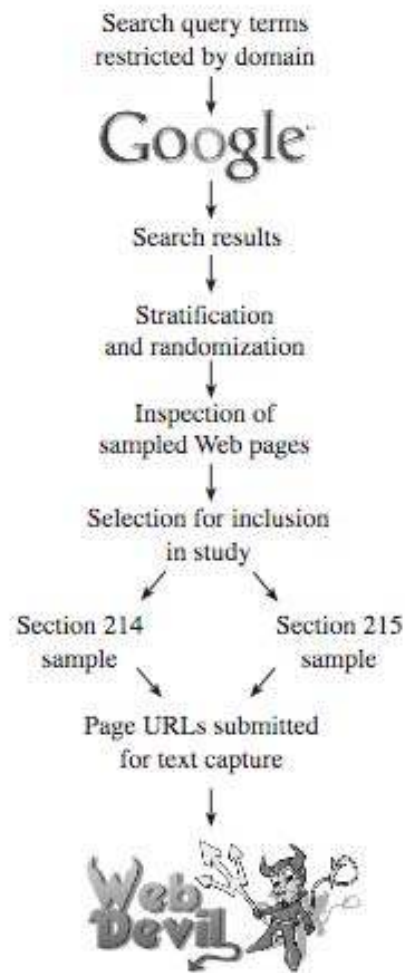
Figure 4.2. A summary of steps involved in establishing samples for the study.

Act legislation, it was decided to sample Web pages across five top-level domains. Web sites in the .com, .net, and .org domains are registered without restriction and generally have wide-ranging purposes and uses, spanning commercial, non-profit, collective- and individual-focused Web pages, including discussion forums and blogs. Web sites in the .edu and .gov domains are more restricted in usage and generally represent educational institutions and governmental bodies, respectively. The five domains were chosen to allow inclusion of commercial Web sites, ones representing governmental and educational institutions, and Web sites representing individuals and groups that include public interest organizations.

The goal was to sample 30 Web pages in each of the five Internet domains to generate a sample of 150 URLs, totaled across the domains, for each of the two sections of the USA Patriot Act of focus in the study. The target of 150 Web pages per sample was chosen as a compromise point between the need for a sufficiently large sample to support statistical analysis and generalization of findings to the populations from which the Web pages were sampled and a more finite number of pages to allow inspection and descriptive analysis of each page included in the sample.

To achieve a broadly representative sample, the study used a second stratification approach. Search results obtained through Google were divided into thirds using a tertile split, to permit sampling across the top third of the Google returns, the middle third, and the lowest ranked third. Because the overall sampling goal was 30 Web pages per domain for each sample, 10 Web pages were sought from each third of the Google search results. The intent that guided this step was to collect a range of Web pages that represented some of the most prominent sites that people were accessing or were otherwise judged by

Google to be prominent, in part based on who or what they represented, and also to include Web pages that were categorized as less prominent or of low prominence as determined by their placement in Google's page-ranked returns.

The study used randomization to identify pages within each third of the Google returns. Using an option on Google's advanced search page, the search results were provided as 30 listings per page of results. Random starts were used to select results from each page of returns for inspection. The starts were obtained by choosing a number between one and 30, drawn randomly, as the starting point for inspecting the page of results. The researcher then worked downward through the results until a page was found that qualified for inclusion in the study. At that point, a new random start was used, until 10 pages were selected from the search results or it became clear that the search results did not contain a sufficient number of pages in that third of the returns that met selection criteria.

The Google searches used to establish the study's two samples occurred in August 2005. The Google searches found fewer Web pages for Section 214 than for Section 215, with lower numbers of results for Web pages containing references to Section 214 across the five Internet domains of focus in the study. Searches for Web pages that mentioned the USA Patriot Act and Section 215 identified 45,000 Web pages in the .com domain and 42,700 Web pages in the .org domains. As shown in Table 4.1, these counts were far higher than any others in the study, indicating that the majority of recent mentions of Section 215 occurred at Web sites in the .com and .org domains. Not all of those pages

Table 4.1. Google returns by domain for Section 214 and 215.

Domain	Number of Returns	
	Section 214	**Section 215**
.com	347	45,000
.org	385	42,700
.net	159	493
.gov	156	693
.edu	125	558

searches return a large number of results (Google corporate information, n.d.), while

offering a link following a page that allows one to access similar pages at the same Web

site. For these reasons, only 733 of the 45,000 pages in the .com domain for Section 215

and only 440 of the 42,700 Web pages found in the .org domain were in the returned

listings, with similar declines in all other domains for both sections, as well.

In the stratification process used in the study, the total number of pages of Google

search results in each Internet domain was divided in a tertile split. Random numbers

were used to select pages within each third and to identify starting points on each results

page. The Web page that matched the random number was then inspected and entered

into the study's sample if it met the selection criteria. If the page failed to be accepted

into the study, the next listing on the page, working downward, was inspected. The

process was repeated until all Web pages within the third of the results pages had been

searched or until 30 Web pages within the section of search results had been admitted

into the sample. The title and uniform resource locator (URL) of pages that met the

study's selection criteria are provided in Appendix A.

The sampling design resulted in fewer than 30 Web pages in each domain for both

samples of the study, i.e., many of the sampled sites did not meet the exclusion criteria.

As shown in Table 4.2, the selection process resulted in Web page totals that ranged in

number from 3 to 29 by domain. Two chief factors were found to contribute to an overall

decline in the number of potentially usable Web pages by the study. Google was found to

frequently list multiple pages from Web sites among the search results, and a large

number of Web sites were mirroring text of the USA Patriot Act without adding

commentary or viewpoints of their own. Other factors that contributed to the drop in the

Table 4.2. Counts by domain of Web pages selected for the study's two samples.

Sample	Domain					
	.com	**.org**	**.net**	**.gov**	**.edu**	***n***
Section 214	19	24	10	6	3	62
Section 215	26	29	21	27	21	124
n	45	53	31	33	24	186

sampling population included Web pages that Google listed among the returns that were clearly from previous years and contained no recent content.

These included pages from the 2004 presidential campaigns of Howard Dean, John Kerry, and Dennis Kucinich. Reasons for older Web pages' appearance in the search results were unclear but some returns may be attributable to features on Web pages that are updated automatically to display the current date and other content, and the practice of some Web servers to generate dynamic content rather than to maintain static HTML pages. The Google returns also contained a large number of Web pages that contained fleeting references to the USA Patriot Act and more substantial discussion of recent immigration laws that also contained sections numbered 214 and 215. Such imprecision can occur in Internet searches, and the combination of those factors resulted in fewer than 30 qualifying pages for each domain of the study, yielding a total of 62 Web pages for the Section 214 sample and 124 Web pages for the Section 215 sample.

After the samples were established, the next step for the study's descriptive analysis was to capture and archive the text from the Web sites. A commercial shareware program, Web Devil version 62d1 by Chaotic Software, was chosen for this purpose. Compared to other available Web capture programs, Web Devil had three key features that made it particularly well suited to the study. The program could be targeted to specific, deeper pages within a Web site rather than capturing a site in its entirety. Web pages comprising each sample of the study generally were not the opening page of a Web site but were instead located one or more levels deep at a site. Web Devil also offered an option allowing its searches to be restricted by levels. In this way it could be configured to search one, two, or more levels from a specified starting point, which allows other

pages within a Web site and external to it to be captured by the program. The third

feature that led to Web Devil's selection for the study was a batch downloader that

permitted a text file containing multiple URLs to be uploaded and searched successively.

This allowed the program to work through the study's large samples in a short period of

time. Appendix B provides more details about the Web Devil program.

For this study, options in Web Devil were selected to indicate that the program

should work from the specific starting points provided as URLs and to follow the links,

both internal to the Web site and external to it, on the starting page to capture content two

levels deep to ensure that the links from the original page and the material that they

pointed to were preserved in the archived content. For ease of inspecting the material,

both text and images were captured. The captured data was stored on an external hard

drive. The result of this were two folders of documents, one focused on Section 214 and

one for Section 215, each 3.6 megabytes in size. The captured files from Web Devil were

stored in hypertext markup language (HTML) format and viewable using a Web browser.

In preparation for the study's descriptive content analysis, the next step in data

preparation was to extract the text from the archived Web pages and consolidate it into a

Microsoft Word document. Extraction was done using copy and paste commands,

selecting and copying text from the HTML pages and then pasting it into Word. Page

breaks were used to separate content from individual Web pages. Each page was assigned

a unique identification code that specified the USA Patriot Act section that it discussed

(214 or 215), the domain it was drawn from (.com, .net, .org, .edu, or .gov), and the

number of the Web page as it was listed in the domain for the sample. The latter

corresponded to how pages are listed in Appendix A to allow each URL in the sample to

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be matched with its extracted text. The code identifier was placed above the extracted text and set off with brackets, a coding specification that allows the material to be excluded from analysis by QDA Miner and Word Stat, the two software programs used for the descriptive analysis. The result of this work was two Microsoft Word documents, one containing text about Section 214, the other, text about Section 215.

Coding, Measurement, and Observation Processes

A suite of software programs marketed by Provalis Research was chosen for the study's descriptive analysis. The programs were selected, in part, because they are supported by the university's Statistical Consulting Center and for the flexible approaches and tools that QDA Miner version 1.3 and WordStat version 5.0 offer for descriptive analysis of text. Appendix D provides more information on the programs.

Figure 4.3 provides an overview of the steps taken in the descriptive content analysis. After the data was extracted from the captured Web pages and consolidated into two Microsoft Word documents, as described above, the documents were imported into QDA Miner. The software contains a Document Conversion Wizard that prepares the files for submission into QDA Miner. The wizard walks users through each step of the conversion process, including specifying a starting and ending delimiter, such as a page break, to indicate how text files are separated in the Word documents.

After the documents were stored in QDA Miner, the text files were inspected for meaning and substance. Web pages that represented discussion forums were found to contain multiple views about the legislation. To facilitate the study's quantitative frame analysis, one view at each discussion forum was selected for analysis and exclusion

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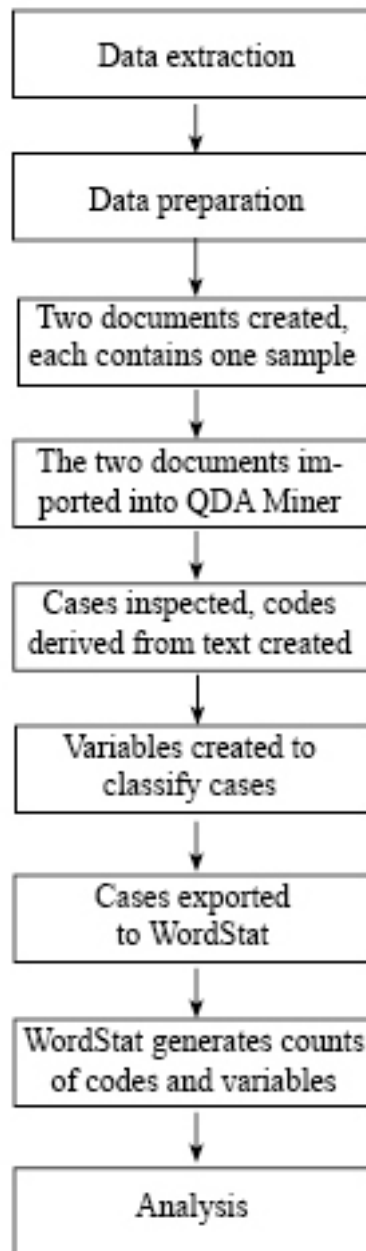
Figure 4.3. Summary of steps involved in the descriptive content analysis.

brackets were used around other material on the page. In this way, the unit of analysis for the study's descriptive and frame analysis components became one comment chosen at each Web page in the sample. Focusing in on only one opinion was viewed as important because the frame study seeks to understand co-occurrences of key words and concepts. Allowing conflicting opinions to be coded together would threaten the frame analysis' ability to identify the co-occurrence of salient terms within distinct points of view. The criterion used to select a point of view from among many at a discussion forum Web page was to select a coherent point of view expressed by a participant and, when possible, to select the comments of the person who originated the discussion. When the originator did not express a clear judgment about the legislation, then the first participant who did was selected for inclusion in the study. This led to varying amounts of text to be excluded from the analysis. The greatest amount of exclusion occurred at Web-based forums, where dialogue sometimes continued for twenty or more screens of text, generally on a wide range of subject matter. Blogs also tended to voice an opinion on a relevant section and then move on to other subject matter, which was excluded. Organizational Web sites tended to be more to the point, with little if any text excluded from those sites.

Compared to news articles and news releases, two forms of information that often serves as material for content analysis, Web pages often contain text that is unrelated or only marginally related to the page's focal point. The extraneous material may include text that indicates navigational aids such as title bars and buttons. Other text may credit a Web service for hosting a site, acknowledge software tools used in creating the Web content, or promote advertisers or revenue generators such as the sales of T-shirts and bumper stickers. Examples of each of these forms of content were found in the Web

pages in the two samples. To allow the analysis to focus solely on opinions expressed about the USA Patriot Act and relevant section of the act, brackets were placed around extraneous material in each case file to indicate to the software program that the material should be excluded from analysis.

QDA Miner allows researchers to create codes and apply them to sections of text within cases and also to create variables that may be used to characterize each case in its entirety. Each case, which represented one Web page, was inspected to identify what was being said about the USA Patriot Act in general and also about the section of focus for the sample (Section 214 or 215) in particular. When possible, the codes themselves contained the original language of the Web author. In instances when comments addressed a certain type of issue, a broader code was applied to the comments. For example, when authors said that Section 215 was worrisome or troublesome or used other phrases that conveyed the same general idea, the comments were grouped under the umbrella phrase "causes concern." In similar fashion, opinions phrased in various ways that expressed concern that Section 214 allows the government to spy on citizens were coded as "surveillance of citizens." Comments about how the section changed existing laws were coded as "changes law, scope." Appendix C presents the derived classification schema that was used to classify views expressed about Sections 214 and 215 of the USA Patriot Act, as well as the classification of overall views of the act itself and shows passages of text with codes applied to them.

In this analysis, codes were developed for each of the study's two samples, and the frequency of occurrence of the codes in each sample were tabulated. The researcher

worked through all cases in each of the study's two samples to develop and apply codes derived from the views and opinions that the Web authors expressed.

QDA Miner also allows researchers to create and apply variables that categorize cases within samples. To permit comparisons between cases, this study created variables on several factors viewed as important. Specifically, the following variables were created:

1. Domain represented. The domain in which each page resided was coded as a variable, so that pages could be sorted by domain for comparison. Pages were coded as being in either .com, .org, .net, .gov, or .edu.

2. Source of content represented. Web pages were classified into one of eight categories to identify the form of content that each page represented. The categories were political organization; blog; institution (university, college, government agency); professional association; business; online entity (unique to the Web, such as e-zines); Web forum; and religion- or race-focused.

3. Overall point of view. To determine the overall point of view a Web page expressed about the USA Patriot Act or relevant section for the sample, all views and opinions expressed in the sampled text on the page were analyzed. If the views in general expressed support for the legislation and noted no problems or shortcomings, the page was coded as being "for" the legislation. Page that expressed both positive and negative views or opinions about the USA Patriot Act and/or relevant section were coded as "mixed" in their views about the legislation. If the views or opinions were generally negative about the USA Patriot Act and/or relevant section, the page was coded as being "against" the legislation. Table 4.3 illustrates how these codes were applied.

Table 4.3. Text classified by viewpoint about the USA Patriot Act and/or Section 215 from the study's Section 215 sample.

Viewpoint	Extracted Text
For	…the Patriot Act is a powerful and necessary tool to check terrorism (The Open Society Paradox).
	The Act was passed, once again, thanks to the selfless acts of terrorists who, through their timely actions, caused our nations LIEberal leaders to rethink their opposition to Roving Wiretaps, Library book checkouts, and internet usage of suspected bad guys (Landover Baptist Church forum).
	Thanks to the Patriot Act, all members of the anti-terrorism community can now collaborate to prevent the next terrorist strike before it happens (Manhattan Institute for Policy Research).
Against	In this column, I will focus on just a few of the Act's sunsetting provisions—each of which, in my view, should be repealed or, at a minimum, allowed to expire this December (FindLaw).
	Come December 31st, our nation's character will be protected and American will be stronger if we see these unconstitutional provisions of USA PATRIOT ride off into the sunset. (Tom Paine. common sense).
	Section 215 strip-mines civil liberties and rapes the privacy of innocent American citizens who have committed no crime (Unknown News).
Mixed	Section 215 of the Patriot Act has created some speculation and concern among mental health providers (Nevada Psychologists).
	Aspects of the Patriot Act are good, and I don't know anyone against breaking down barriers between intelligence agencies and facilitating cooperation. However, that is not all it does (Mark Earnest, blog).
	I said at that time that this was not a perfect law (U.S. Sen. Larry Craig).

4. Level of analysis. People and organizations communicate views at varying levels of analysis, or depth. Some theorists have speculated that the Web may have a polarizing effect on political discourse by enabling people to voice summary judgments with little effort at analysis or justification of their view. To measure this tendency, the study established a variable to assess level of analysis. A page's depth was determined by evaluating the extent to which opposing views were identified or discussed. Selected text (the study's unit of analysis) expressing a summary judgment, such as "This act is bad!," was coded as having little depth. Text classified into this category contained one point of view or singular assessment. Text that acknowledged views held by others, either in words or through hypertext links, was coded as having moderate depth. Text that quoted or summarized opposing or differing views, with or without hypertext links, as context to the views the pages advocated was coded as having substantial depth.

5. Structural openness. The structure of a Web page may or may not permit others to post opinions or views. Web pages in the samples that allowed people to post comments of their own were coded as being structurally open to differing points of view. Pages that did not allow people to post comments or views were classified as structurally closed.

The QDA Miner software program allows users to export full text or coded segments into WordStat for analysis. To allow comparisons, QDA Miner can also filter cases by variables. The filter option was used during portions of this study to sort and analyze cases based on their classification by viewpoint and depth of information. These features were used in the study's descriptive analysis to examine code use among the cases and to probe for differences in code use when cases were sorted by viewpoint and on other variables.

In preparation for the study's frame analysis, all text in the study's two samples was exported from QDA Miner into WordStat. This process is accomplished within QDA Miner with one click of the mouse to indicate to the program that content analysis is desired. The mouse click launches WordStat, which imports the coded text. WordStat counts and sorts for frequency of occurrence of words. The program also ranks all words appearing in the text in order of frequency. WordStat includes preprocessing and lemmatization options to screen out semantic clutter. Preprocessing removes non-content-bearing words, such as articles, prepositions, or verbs of being.

Lemmatization shortens words to their canonical forms. In this way occurrences of the terms "adjudicate," "adjudicating," and "adjudicated" were consolidated to a common short form: "adjudicat." An option within WordStat was selected to instruct the program to not process text contained within brackets. This excluded extraneous text that had been identified and placed within brackets in QDA Miner during the initial data inspection and text preparation.

The decision to use both preprocessing and lemmatization options within WordStat was motivated by the goal to focus on meaningful words (preprocessing) and alleviate minor variations of phrasing (lemmatization) in each sample. Such consolidation of words seemed useful because of the large number of unique terms that WordStat counted for each sample and for the wide variance of language and word choices found in Web text, which can range from formal written language to forms, at discussion forums in particular, that mimic conversational or informal speech. WordStat counted 10,621 unique words of 131,946 total words for the Section 214 sample and 6,923 unique words of 71,452 total words for the Section 215 sample. With stemming and lemmatization

options selected, the counts dropped to 6,092 unique words for Section 214 and 4,493 unique words for Section 215.

These latter word counts and frequency of occurrence of words were exported from WordStat as Microsoft Excel files. Raw counts of word use across the cases in each sample were also exported as Excel files. These files were then imported into Number Cruncher Statistical Software (NCSS) for the study's frame analysis. NCSS was selected for the study due to the robustness of the multivariate analyses that it supports, its ease of use, and its computational efficiency. Appendix E provides more information about the program.

Figure 4.4 provides an overview of the steps taken in the quantitative framing analysis. The goal of the analysis was to identify the most critical key words associated with discourse in the two samples and to determine whether there were clear patterns, or clusters, within the discourse of each sample through the development of cluster profiles. Conclusions on these two points provided the data to test the study's hypotheses associated with how individuals and groups are using Web sites to discuss and debate public issues.

The study's two samples of content, Section 214 and Section 215, were analyzed separately, with the steps of analysis repeated for each sample. The analysis used applied multivariate methods to analyze the data. These include cluster analysis using K-means and fuzzy clustering, principal components analysis, and discriminant analysis. The first step of the analysis in NCSS consisted of a K-means cluster analysis to select a smaller sample size of significant key words drawn from all of the unique key words in the discourse to use in the quantitative analysis. A non-hierarchical clustering method, K-
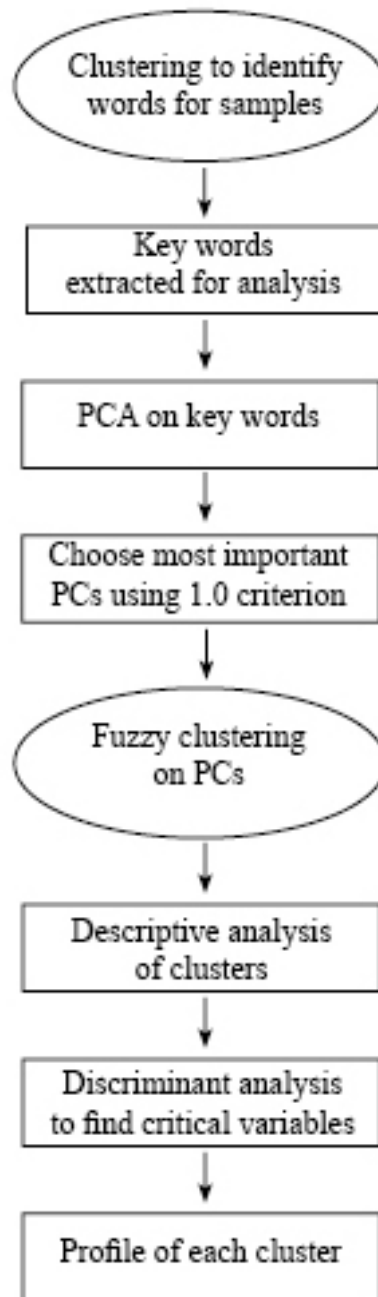
Figure 4.4. Summary of steps involved in the quantitative content analysis.

means cluster analysis indicates the presence of clusters within the sample based on cluster means and standard deviation. The researcher must specify in advance the desired number of clusters, K. Initial cluster centers are chosen in a first pass of the data, then each additional iteration groups observations based on nearest Euclidean distance to the mean of the cluster. Cluster centers change at each pass. The process continues until cluster means do not shift more than a given cut-off value or the iteration limit is reached.

The process is well suited for efficiently processing large volumes of data. The initial run of the program specified up to nine clusters, which was a higher than expected number, to allow the program to indicate the optimal number of clusters for the data. Results of the process indicated that three clusters were best for the data. The clusters identified through this process were inspected for the variance and the number of key words that each contained. The cluster that contained the fewest number of words and possessed the highest usage words that had meaning was selected for subsequent analysis because this cluster was judged to possess the greatest explanatory power for the data.

In the next step, values representing the raw frequency of each word in the chosen cluster from the K-means analysis were assembled into an Excel worksheet and imported into NCSS. The data served as input for a principal components analysis (PCA). The purpose of the PCA was to reduce the number of key words through the creation of a smaller set of uncorrelated variables known as principal components (PCs). The principal components were obtained using the correlation matrix and no rotation for purposes of simplicity. Components were selected using the widely accepted method of eigenvalue cutoff based on the value of 1.0.

In preparation for the next data step, the eigenvalues calculated in the original PCA were used to transform the principal components that were selected in the previous step of the analysis. The transformation consisted of multiplying the values of each principal component with the square root of its eigenvalue. These transformed components were then submitted as input for fuzzy clustering analysis. The intent of the fuzzy clustering was to determine the optimum number of clusters within the data and evaluate the degree of dominance of specific Web sites within each cluster for the understanding they shed on the cluster to which they were assigned, with dominance determined by degree of belonging to the cluster (Bezdek, 1981; Dunn, 1974; Seaver, Triantis & Hoopes, 2004; Seaver, Triantis & Reeves, 1999; Zimmerman, 1991).

In fuzzy cluster analysis, each observation has membership for each cluster, allowing for comparison of degree of belonging. The approach is actually a generalization of partitioning methods that supports a sensitivity analysis, which can be accomplished in two ways: by changing the number of clusters or by changing the fuzzifier, which regulates the degree of hardness or fuzziness of the clustering solution (Everitt, Landau & Leese, 2001). Three indices associated with the procedure aid in judging the best degree of fuzziness for the data: Dunn's partition coefficient, Kaufman's index, and a silhouette coefficient.

After the fuzzy clustering was performed, a three-dimensional scatter plot was used to probe for differences in how the key words selected for the analysis were used among the Web sites that comprised each sample. The first three principal components served as variables for this step in the analysis. The scatterplots revealed patterns of usage among the Web sites, showing how some clustered tightly at a core, while others

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were more dispersed and some were located at the periphery, as outliers. Using the x, y, and z axes of the scatter plots, it was possible to identify specific Web sites by location.

The next step of the analysis consisted of a discriminant analysis conducted on the clusters found in each sample. The purpose of this step was to identify the most statistically significant words in differentiating the two clusters. These words were judged to be the most meaningful frames in differentiating the Web sites and in signaling what was being said about Section 214 and Section 215 by the Web authors. The estimation method used was linear discriminant function using a stepwise variable selection with a .20 probability enter and .15 probability remove.

Cross-validation classification was used to validate the results of the discriminant analysis by determining how well the selected key words performed in classifying each cluster. In this process, the first observation vector is removed from the data set, and a discriminant rule is formed based on all the remaining data. This rule is used to classify the first observation and note whether the observation is correctly classified or not. Next, that observation is replaced, and the second observation is removed, with a discriminant rule formed based on all the remaining data. That rule is used to classify the second observation, and the process proceeds through the entire data set, removing one observation at a time. These estimates have been found to be nearly unbiased projections of the true probabilities of correct and incorrect classifications (Johnson, 1998).

The final stage of the analysis consisted of the development of cluster profiles through the use of descriptive statistics to obtain the means of key words identified as significant in the discriminant analysis. Inspection of the means allowed the contribution of each key word to the cluster profile to be explored. The value of the means for each

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word provided a measure of positive or negative departures from the sample mean on key discriminating values. A descriptive analysis was conducted to examine how the Web pages in each sample were classified by cluster. The classification sought to reveal and analyze core differences in points of view, forms of Web content or author, and degree of discussion or debate about the USA Patriot Act and relevant section contained in the discourse of the study's two samples of Web pages.

To probe further for differences, Fisher's exact test was used to contrast dimensions of the results (Good, 1994). A non-parametric test based on a hypergeometric distribution, Fisher's was used rather than a Chi Square Test due to the low cell counts for many of the tables. The quantitative frame analysis served to test the dissertation's hypotheses and provide answers to the questions concerning Web and frame use in facilitating online discourse over a public issue.

The study's issue network analysis used the URLs of Web pages in the study's two samples as data rather than the text that the Web pages contained. Network analysis allows actors in a finite system to be identified and their interrelationships evaluated based on patterns of linkages. In the case of the Web, such linkages may be hypertext links, with patterns of in-links and out-links signaling the degree of prominence of a site as an authority on an issue, its centrality in an issue network, and the degree to which it interacts, through linking behaviors, with other actors in the network system. Figure 4.5 depicts a U.S. press freedom network, depicting advocates of press freedoms, with colors indicating various Web domains. The size of the circles indicates the relative prominence of each node in the network, as gauged by the number of incoming links from the network.

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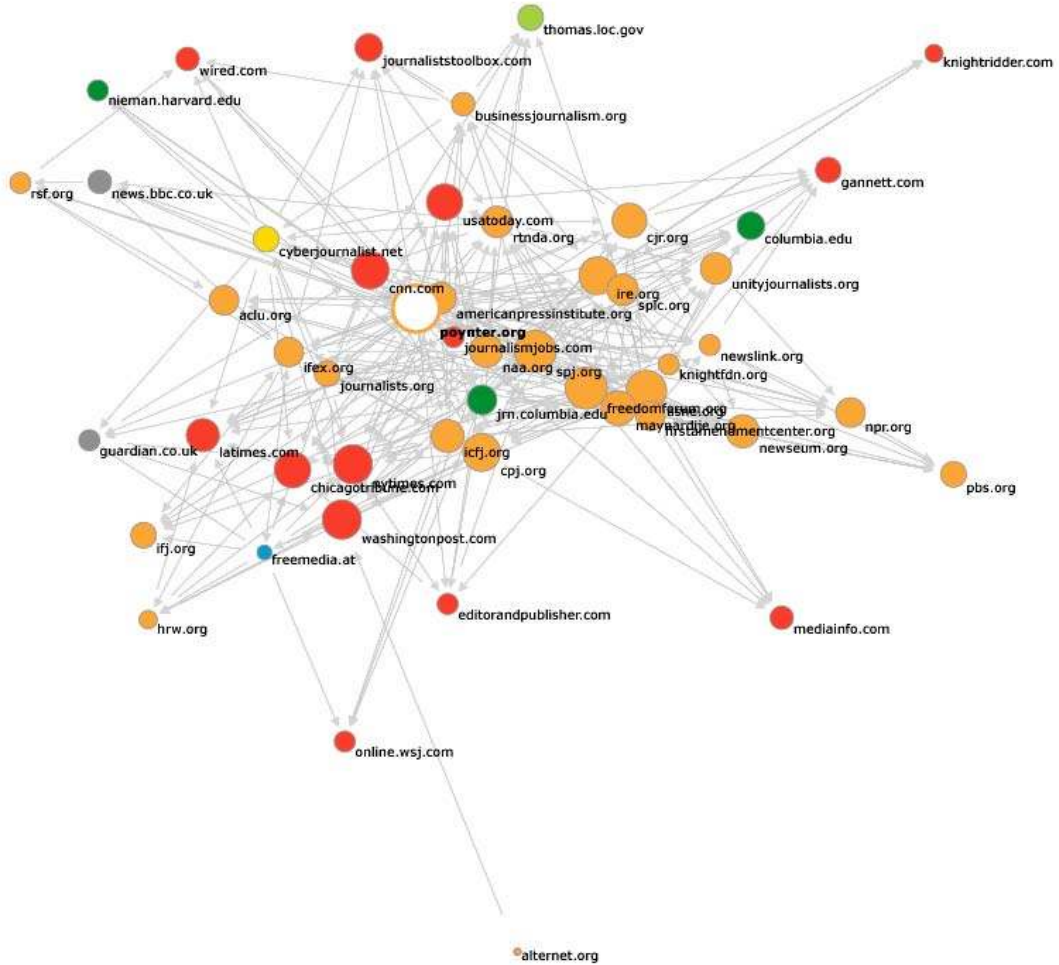
Figure 4.5. Issue network of U.S. press freedom advocates.

Note. Colors indicate Internet domains, and node size reflects the number of incoming links a Web site receives from the network. From Richard Rogers, 2006, http://govcom.org/maps/press_freedom_usa_core_jan06.svg (Accessed October 8, 2006). Adapted with permission.

The tool selected for this analysis was a server-side software program called Issue Crawler that is available for research uses at the Web site Govcom.org, located at http://govcom.org. The Web site represents the Govcom.org Foundation of Amsterdam, which is led by communications researcher Richard Rogers.

Issue Crawler is a network mapping program that consists of a crawler, a co-link analysis engine, and two visualization modules. The program crawls specified sites, captures the outgoing links from those sites, performs a co-link analysis on the links, develops interlinked networks, and generates visualizations of the networks presented as circle and cluster maps.

Figure 4.6 provides an overview of the steps involved in the study's issue network analysis. The URLs of Web pages in the study's two samples were entered as seeds to achieve network visualizations representing key Web pages in issue networks for online discourse concerning Section 214 and Section 215. Input for the analysis was prepared by copying the URL of every Web page from the Section 214 sample into a Microsoft Word document with each address followed by a hard return, to separate one URL from the next. The process was repeated for the second sample, resulting in two Word documents, each containing all the URLs of Web pages for one sample of the study. The URLs from these documents were then copied and pasted into the Issue Crawler Harvester. Issue Crawler, which is described more fully in Appendix F, contains options that support network visualizations for a variety of types of networks. Different settings are recommended for each network type. For issue networks, which are networks of organizations that form around a particular issue, the following options were recommended by the software's creator (Rogers, 2005) and used by the study:

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```
         ┌──────────────────────┐
         │   URL extraction and  │
         │      preparation      │
         └──────────────────────┘
                    │
                    ▼
         ┌──────────────────────┐
         │ Two documents created,│
         │ each contains one sample│
         └──────────────────────┘
                    │
                    ▼
         ┌──────────────────────┐
         │ URLs from the documents│
         │ pasted into Issue Crawler│
         └──────────────────────┘
                    │
                    ▼
         ┌──────────────────────┐
         │  Search specifications │
         │ selected in Issue Crawler│
         └──────────────────────┘
                    │
                    ▼
         ┌──────────────────────┐
         │    Searches entered    │
         │       in queue         │
         └──────────────────────┘
                    │
                    ▼
         ┌──────────────────────┐
         │   Searches completed,  │
         │     maps generated     │
         └──────────────────────┘
                    │
                    ▼
         ┌──────────────────────┐
         │  Network visualizations│
         │    accessed online     │
         └──────────────────────┘
                    │
                    ▼
         ┌──────────────────────┐
         │        Analysis        │
         └──────────────────────┘
```
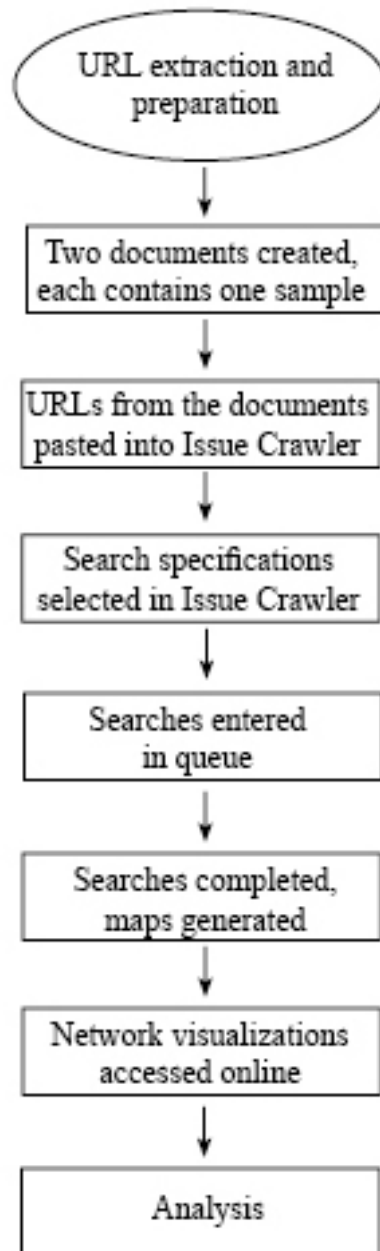
Figure 4.6. Summary of steps involved in the issue network analysis.

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• Privilege Starting Points. The program recommends turning this option off so that Issue Crawler understands that the URLs submitted are starting points for its crawl and that subsequent iterations of its crawl may include organizations not in the initial URLs. The program used the URLs as seeds for a Web crawl and co-link analysis that resulted in seeds that receive at least two links from the starting points. This allows the program the ability to work from the initial seeds to build a broader and more complete network.

• Perform co-link analysis by page or by site. The program recommends performing co-link analysis by page to analyze deep pages and return networks consisting of pages. Analysis by page is suggested because it yields results that are more specific, and the clickable nodes on the maps are generally deep pages at Web sites as opposed to opening pages, which is well-suited to tracking issues across Web sites.

• Set iterations. The number of iterations of method, each consisting of a crawl and co-link analysis, may be set from one to three. Two iterations are suggested for issue network mapping.

• Crawl depth. The program allows crawls from one through three layers of depth. A crawl depth of two is recommended for issue networks. The pages searched from the starting seed URLs are considered depth 0, and a search configured to depth 2 will contain the original seeds plus one additional layer of depth, the pages to which the seeds point.

After these setting options were configured for each of the study's two samples, the searches were entered into a queue for processing. An option was selected to receive e-mail notification when the searches were completed. The searches were completed on November 13, 2005. Once complete, the maps generated by Issue Crawler are preserved

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at the program's Web site, where they may be viewed and downloaded. When viewed

using an Adobe scalable vector graphics plug-in, the maps are interactive, allowing each

Web page to be selected to examine its incoming and outgoing links. Issue Crawler's

cluster map option was chosen for this study because the cluster maps use scaling to

indicate the degree of centrality of each Web page in a network, with the most central

Web pages in a network, determined by in-link counts, depicted at a larger size than

other, more marginal sites in the network.

Maps generated by Issue Crawler were downloaded from the Web site and saved

to a local hard drive for analysis. The analysis consisted of inspecting maps that depict

qualitative strength of ties and quantitative force of ties to discern whether patterns were

evident in linking behavior among Web pages, or actors, in the network, and whether

conclusions could be made based on type of organization or focus that drove those

differences. Areas of examination included the centrality of nodes in a network, interlinks

among nodes, and comparisons of inlinks and outlinks as measures of a node's value to

others in the issue network.

The study's concluding analysis consisted of exploring overlap among the results

of the three forms of analysis used—descriptive, quantitative, and issue network

analysis—with focus on what the conclusions suggest about political debate and issue

advocacy on the Web.

CHAPTER V
RESULTS AND ANALYSIS

The literature review has shown that there are compelling reasons to understand how people and organizations are using the Internet to communicate about public issues, in part to understand the nature of political debate as it is occurs through a maturing communication medium and, equally important, to understand the value that individuals and organizations are finding in using the Internet for issue advocacy and community formation. To investigate those issues, this dissertation triangulates methods of descriptive and quantitative frame analysis with issue network analysis to formulate answers to several research questions and test more narrow hypotheses. Results of this analysis should illuminate the nature of the Internet's effect upon online debate and discussion of a public issue and reveal the degree to which online communities have coalesced around key sections of the USA Patriot Act, as well as the apparent value the Internet holds for issue advocacy on the part of individuals and groups with stakes associated with the USA Patriot Act.

Establishment of the Study's Two Samples

To answer the study's research questions and test its hypotheses, two samples of Web sites were established, following the procedures outlined in the methods chapter. As presented in Table 5.1, this study found considerably fewer Web sites in connection with discourse about Section 214 than about Section 215, as evidenced by n's of 62 and 124, respectively. This may indicate that issues associated with Section 215 were more salient

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Table 5.1. Counts ranked by domain of Web pages in the study's two samples.

Sample	Domain					
	.org	.com	.gov	.net	.edu	*n*
Section 214	24	19	6	10	3	62
Section 215	29	26	27	21	21	124
n	53	45	33	31	24	186

to people and organizations than were Section 214, based on the number of Web sites found and selected into the study; however selection error based on the study's research design may have had as much, if not more, to do with it. Section 215 had higher counts across all five domains, although the difference is narrowest for Web sites in the .org domain, where there were 29 Web sites focused on Section 215 compared to 24 for Section 214. This indicates that Section 214 was discussed with some frequency at Web sites in the .org domain and also in the .com, which achieved 19 counts in the study's randomized, stratified selection process.

For both sections, the greatest amount of discussion was found to be occurring at Web sites in the .org domain. Because the domains of .org and .com are inclusive in nature, encompassing a range of Web page forms, from blogs and organizational sites to Web-based forums, the high numbers in these categories is of little surprise.

In the study's descriptive analysis, each Web page was coded and classified on a number of factors, including the type of Web site represented. Political organizations were found to be the most frequent communicators about Sections 214 and 215, at almost double the frequency of the second most dominant page type, which was blogs. Following these two categories were institutional Web sites, those representing professional associations, businesses, online entities, Web forums, and religion or race focused Web sites. Table 5.2 reports on the frequency and percentage of Web pages classified by page type. While Section 214 was discussed most heavily by political organizations (35.5%) and blogs (21%), Section 215 also received high percentages for these categories in addition to a comparatively large amount of attention, or mentions, at Web sites representing institutions (15.3%) and professional associations (12.9%), and

Table 5.2. Web pages classified by focus and form of content.

Page Type	Section 214	Section 215
Political organization	22 (35.5%)	43 (34.7%)
Blog	13 (21.0%)	25 (20.2%)
Institution	7 (11.3%)	19 (15.3%)
Professional association	3 (4.8%)	16 (12.9%)
Business	0 (0.0%)	8 (6.5%)
Online entity	4 (6.5%)	6 (4.8%)
Web forum	10 (16.1%)	4 (3.2%)
Religion- or race-focused	3 (4.8%)	3 (2.4%)

Note. Cell counts for Web page types may be skewed due to sampling. For example, the high number of .org Web sites selected into the study may naturally lead to dominance by political organizations and blogs compared to the fairly low number of institutional Web sites, many of which were found in .edu and .gov domains.

even businesses (6.5%). That spread of attention reflects widespread interest in the scope and potentials of Section 215 among its supporters and detractors. Additionally, as the descriptive analysis found, some Web sites were devoted to addressing the ambiguity associated with the section. While Section 215 received only 4 mentions in Web forums, Section 214 received 10, accounting for 16.1% of its total mentions. Reasons for this were unclear, but it signals that considerable discourse was occurring in Web forums associated with the trap and trace provisions of the USA Patriot Act, reflecting a difference in focus of the sections.

The sampled Web pages were classified by point of view expressed about the USA Patriot Act and section of focus (Section 214 or 215). Web pages expressing favorable views of the USA Patriot Act and relevant section were coded to be "for" the act and section. Web pages communicating clear views that the act and section were bad were coded as "against." Pages expressing the view that the act was valuable but needed some reforms or communicating in a fairly neutral way about the act, such as acknowledging potential or real problems caused by the act or specific section, but not overtly expressing a solidly negative or positive view were coded as "mixed." Table 5.3 reports on the results of this coding.

Close to half the sample of Web pages associated with Section 214, the trap and trace provision, were negative about the provision, followed by 34% of pages expressing mixed viewpoints, and only 18% expressing favorable views about the section. For Section 215, the greatest percentage, 46%, expressed mixed views, followed by 36% against, and 18% for. The high percentage of mixed views is significant, given the intensity of debate over what became known as the library provision. Instead of being

Table 5.3. Point of view about the USA Patriot Act and Section 214 or 215.

Viewpoint	Section 214	Section 215
For	11 (17.7%)	22 (17.7%)
Against	30 (48.4%)	45 (36.3%)
Mixed	21 (33.9%)	57 (46.0%)

polarized by the debate, the majority of people and organizations acknowledged both the pros and cons of the section.

Frames Applied to Sections 214 and 215

Research Question Two asks what kinds of frames were used to communicate views about Section 214 and 215. Answers to this question come from the study's descriptive and quantitative frame analyses. In each of these phases of the study, frames were derived from the actual language of the Web sites. The descriptive study used words and phrases from the discourse as frames and also applied overarching frames to capture and consolidate language into more universal frames. The quantitative frame analysis focused on single words as units of analysis, as it identified the most salient terms used to describe the two sections and investigated whether patterns of word usage could differentiate Web sites in how they discussed the two sections of the USA Patriot Act.

Hypothesis One asserts that as controversial issues Section 214 and 215 should engender multiple, complex, and distinct frames rather than single, limited frames. Evidence was found to support this hypothesis. The descriptive study found 13 different frames used to describe each of the sections. The frames for Section 214 are summarized in Table 5.4. Multiple and distinct frames were used to describe the section, and the frame usage changed by point of view. That change is particularly evident in contrasting the limited number of frames referenced in Web pages expressing support for the section to the Web pages that were classified as against the section or mixed in their overall judgment. Other more subtle differences are also evident. More Web pages that were against the section expressed concerns over low legal standards than pages that were

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Table 5.4. Section 214 frame occurrence derived from the descriptive study.

Code	Additional comments	Against n=30	For n=11	Mixed n=21
Concern over records	Library records	8 (4)	1 (1)	15 (7)
Insufficient oversight		4 (4)	6 (5)	1 (1)
Violates 4th Amendment		14 (12)	0 (0)	9 (6)
Low legal standards		12 (11)	0 (0)	12 (12)
Changes law, scope		6 (6)	1 (1)	4 (4)
Surveillance of citizens		18 (14)	0 (0)	6 (6)
Troubling		2 (2)	0 (0)	4 (3)
Modify/reform		1 (1)	0 (0)	3 (3)
Chilling	Effect on civil liberties	1 (1)	13 (7)	1 (1)
Useful		0 (0)	0 (0)	1 (1)
Question of how to balance	Powers of government versus privacy issues	0 (0)	0 (0)	4 (4)
Does not violate 4th Amendment		0 (0)	2 (2)	0 (0)
Has sufficient oversight		0 (0)	6 (5)	0 (0)

Note. Numerical cell values reflect frame occurrence followed by Web page occurrence. In this way 8 (4) indicates 8 occurrences of the frame across 4 Web pages. The cell counts are accepted as too low to support Chi square tests of significance and do not collapse easily into 2 X 2 tables for testing using a Fisher's exact test.

mixed in their assessment of the section, and the 'against' Web pages also more frequently cited concerns about surveillance of citizens. In contrast, only Web pages that were mixed in their assessment expressed concerns about the challenge of how to balance powers of government versus privacy.

Table 5.5 depicts the frames that the descriptive analysis found in discourse about Section 215. As with Section 214, the lowest number of frames in usage was found in Web sites voicing support for the section. For Section 215, specifically, only five frames were found for this category of opinion. Far more numerous frames were found in discussion at Web pages classified as against the section and at Web pages that were judged to be mixed in their opinion. Concerns about access to library records and other records, notably medical ones, were the most frequently cited frame. Others that figured prominently in discourse were concerns about threats to civil liberties, and insufficient oversight of how key provisions of the act were applied. Frame use and frequency was heaviest in Web pages that were mixed in their assessment of the act, in contrast to the Section 214 discourse, where frame use was heaviest at Web sites in opposition to the section.

For both Section 214 and 215, the fewest number of frames were used by Web sites expressing support for the sections. For Section 214, 10 codes were used for the section compared to 16 and 23 against and mixed, respectively. For Section 215, 13 frames were used for the section compared to 26 and 28 against and mixed, respectively. This suggests that more narrow discourse was occurring at the Web sites voicing support for the sections. The limited number of frames used in expressing support for the two sections, compared to the more numerous frames cited in mixed and against Web page

Table 5.5. Frames derived from the descriptive study applied to Section 215.

Code	Additional comments	Against n=45	For n=22	Mixed n=57
Library records	Also medical records	26 (18)	5 (4)	27 (23)
Threatens civil liberties		19 (13)	1 (1)	22 (17)
Overly broad		13 (9)	0 (0)	14 (12)
Act now	Sign a petition, call your legislator	12 (12)	0 (0)	7 (4)
Chilling effect		11 (10)	0 (0)	3 (3)
Targeting on speech or race		9 (6)	0 (0)	2 (2)
Insufficient oversight		9 (8)	0 (0)	17 (14)
Caused concern	To a variety of publics, including librarians	8 (7)	0 (0)	16 (12)
Repeal or sunset		3 (3)	0 (0)	2 (2)
Useful		0 (0)	14 (13)	1 (1)
Does not violate civil rights	1st or 4th Amendments	0 (0)	11 (10)	0 (0)
Has sufficient oversight		0 (0)	17 (12)	0 (0)
Needs modification		2 (2)	0 (0)	9 (8)

Note. Numerical cell values reflect frame occurrence followed by Web page occurrence. In this way 26 (18) indicates 26 occurrences of the frame across 18 Web pages. The cell counts are accepted as too low to support Chi square tests of significance and do not collapse easily into 2 X 2 tables for testing using a Fisher's exact test.

categories, may also signal the presence of summary judgments that the sections are

beneficial and a lack of openness to, or acknowledgement of, divergent opinion, as

evidenced by an absence of rival frames. The fact that Web sites classified into the mixed

category of opinion led in frame use for both samples suggests the widest ranging

discourse at these Web sites, as Web authors presumably sought to grapple with complex

issues associated with the two sections.

Hypothesis Two asserts that given their different focus, Sections 214 and 215

should engender differing frames in general, although with a shared civil liberties issue

frame, reflecting one core commonality. Support was found for this hypothesis, although

additional frames beyond civil liberties were held in common. Table 5.6 probes the

degree of overlap of frames from the study's descriptive analysis. While concerns or

discussions of records and record access figure prominently in discourse about both

Section 214 and 215, there are clearly different frames in use, as well. For example, a

frame that Section 214 violates the 4th Amendment occurred 23 times across 18 Web

pages. In contrast, an opposite statement, that Section 215 does not violate the 1st or 4th

Amendments occurs 11 times across 10 pages. The section's implications for civil rights

were heavily discussed however, as evidenced by 42 mentions across 31 pages.

Distinctive frames applied to Section 214 include low legal standards;

surveillance of citizens; changes in law and scope; and questions of how to balance

government powers versus privacy rights. Distinctive frames applied to Section 215 were

that the section was overly broad; caused concern to a variety of publics; calls for

petitions or actions such as contacting legislators to express concern; targeting on speech

or race; and repeal or sunset.

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Table 5.6. Frames derived from the descriptive study applied to Sections 214 and 215.

Section 214	Freq.*	Section 215	Freq.*
Low legal standards	24 (23)	Library and medical records	58 (45)
Surveillance of citizens	24 (20)	Threatens civil liberties	42 (31)
Concerns over records	24 (12)	Overly broad	27 (21)
Violates 4th Amendment	23 (18)	Insufficient oversight	26 (22)
Chilling effect on civil liberties	15 (9)	Caused concern to variety of publics	24 (19)
Changes law, scope	11 (11)	Act now, sign petition, call legislator	19 (16)
Insufficient oversight	11 (10)	Has sufficient oversight	17 (12)
Troubling	6 (5)	Useful	15 (14)
Has sufficient oversight	6 (5)	Chilling effect	14 (13)
Question of how to balance government versus privacy	4 (4)	Does not violate civil rights, including 1st or 4th Amendments	11 (10)
Modify/reform	4 (4)	Needs modification	11 (10)
Does not violate 4th Amendment	2 (2)	Targeting on speech or race	11 (8)
Useful	1 (1)	Repeal or sunset	5 (5)

Note. Freq. indicates frame occurrence followed by Web page occurrence. In this way 24 (23) indicates 24 occurrences of the frame across 23 Web pages.

In addition to the common frame about records, Section 214 and 215 had the following shared frames: insufficient oversight and has sufficient oversight; calls to modify or reform; chilling effect on civil liberties; and that the sections were useful, although only one use of this frame occurred for Section 214, contrasted to 15 for Section 215.

Some frames were found to be overarching in nature, encompassing varying subframes that were united by a common theme. Two overarching frames were found in the discourse about Section 214 of the USA Patriot Act. One has to do with comments about the section and overall act harming the nation's democracy. The other overarching frame concerned problems in clarity that were cited about the section and act. Specific frames grouped under the overarching frame of "harms our democracy" include the following remarks.

Frames about personal liberty:

• "How free are we?"

• "Americans depend on libraries to promote the free flow of information for individuals, institutions, and communities, especially in uncertain times. In the words of Supreme Court Justice William O. Douglas, 'Restriction of free thought and free speech is the most dangerous of all subversions. It is the one un-American act that could most easily defeat us.'"

• "How does the 'Uniting and Strengthening America by Providing Appropriate Tools Required to Intercept and Obstruct Terrorism' Act endanger the liberty of Americans? Let's take a look:"

• "If your under 24 hour surveillance, 24 hours a day by the government, all your records are opened by law enforcement for evaluation which also include your medical history, your financial history, your school records, and even what books you check out at the library are evaluated to look for suspicious patterns, and even your e-mail and Internet surfing habits are being tracked. YOU'RE A VICTIM OF A TERRORIST ATTACK ALREADY! …I would rather be blown up in a attack than suffer the upcoming years where citizens are branded with a bar code then put on a leash by the government to restrict their freedoms."

Frames about wasted resources, damaged relationships, and broadened legal scope:

• "The PATRIOT act doesn't make use safer it puts us at risk…because it wastes resources…allow[ing] extensive and expensive investigations to take place with little or no evidence of wrong doing…. The PATRIOT Act puts us at risk by damaging relationships. By removing most evidentiary requirements, The PATRIOT Act facilitates the targeting of innocent Arabs and Muslims. By creating a culture of distrust, it damages the ability of the government to work cooperatively with those communities to prevent terrorism."

• "Creates a new crime of domestic terrorism. The Patriot Act transforms protesters into terrorists if they engage in conduct that 'involves acts dangerous to human life' to 'influence the policy of a government by intimidation or coercion.' How long will it be before an ambitious or politically motivated prosecutor uses the statute to charge members of controversial activist groups like Operation Rescue or Greenpeace with terrorism?"

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• "There are significant flaws in the Patriot Act, flaws that threaten our fundamental freedoms by giving the government the power to access to our medical records, tax records, information about the books you buy or borrow (Library) without probable cause, and the power to search our homes w/o a search warrant."

Frame about the section's apparent ambiguity:

• "AREAS THAT ARE SO VAGUE AND GRAY IN THEIR WORDING IT SIMPLY PUTS TO DEATH THE CONSTITUTION AND ANY AMENDMENT RIGHTS TO AMERICAN CITIZENS"

Specific frames for Section 214 grouped under "problems in clarity" include the following remarks.

Frame expressing a mixed judgment on the section:

• "While I abhor the far-reaching implications of the arbitrariness of the Patriot Act and the president's new powers, the cause against Islamists is clearly just."

Frames about the section's apparent ambiguity:

• "This law states that surveillance does not apply to the 'content' of Internet communications; however, it does not define 'content' and clearly does apply to such information as e-mail addresses and recipients."

• "In August 2002 the DOJ also noted that 214's "streamlining" of the pen/trap request process "has made these less intrusive tools of FISA more reasonable tools of investigation and more available as alternatives to other tools of the Act." Not clear how that's supposed to be reassuring."

Frame expressing an overall judgment on the section:

• [listing of areas identified as problems followed by this comment] "Just a few items that make the Patriot Act bad law, in my humble opinion."

Only one overarching frame was found for Section 215, and it was that the section and overall USA Patriot Act had problems in clarity. The other frames in the discourse listed in Table 5.7 were found to be narrow in focus and did not encompass multiple elements. Specific frames grouped under the overarching frame of "problems in clarity" include the following remarks.

Frames expressing problems with the section:

• "Patriot Act: still problematic"

• "In the post-September 11 chaos and trauma, Congress did not think carefully about the USA PATRIOT Act. Fortunately, it is being to think more carefully about it now."

Frames about problems in clarity:

• "The Justice Department is using familiar language, but with unstated definitions"

• "offers a broad definition of terrorism which could ultimately subject non-terrorist political groups to surveillance, wiretapping, harassment, and criminal action"

• "Many questions still remain about the impact of this new law on libraries and their policies."

• "As the Attorney General starts his nationwide tour to promote the USA PATRIOT Act, questions of how it will be used against journalists remain unanswered."

Frame about loss of personal liberty:

• "The massive intelligence failures and the institutional incompetence that paved the way for 9/11 have been documented in the 900 page Report of the Joint Inquiry into the Terrorist Acts of September 11, 2001 and in the 9/11 Commission report—much of

Table 5.7. Single-word frames identified through discriminant analysis.

Section 214	Section 215
Activity, activities	Activity, activities
Agent	Amends, amendment, amendments
Community, communication	American, Americans
Country, country's, countries	Author, authors, authority, authorities
Department, departments	Civil
Does, does not	Congress
FBI	Federal
House	Govern, governs, government, governments
Law	Inform, informs
Pass, passes, passed	Law
Power, powers	Obtain
Privacy	Person
Read	Power, powers
Search, searches	Provision
Surveillance	Record
Terror	Secure, secures, security

which is still classified. Instead of making these failures its main focus, the government has gone after our rights."

The quantitative analysis used statistical procedures to identify the most salient frames associated with the two sections of the USA Patriot Act. The full sequence of the statistical procedures is provided in Appendix G. Discriminant analysis identified the most statistically significant words associated with each section. Table 5.7 reports on the results. Because of the use of lemmatization, the analysis identified only shortened word forms. These canonical forms were inspected in context in the original discourse to obtain their varying endings, which are identified in the table. Frames the two sections have in common include activity, activities; law, and power, or powers. Also a probable commonality is the word House and Congress. Distinctive frames for Section 214 have to do with communication, agent, surveillance, search, privacy, and terror, all of which can be understood as related to the section's changes to federal law regarding wiretapping.

Distinctive frames for Section 215 concern records, inform or informs, obtain, person, civil, authorities, and Americans. Much of the Section 215 discourse analyzed in the dissertation's descriptive phase was found to be about the section enabling authorities to obtain records about persons while preventing them from being informed about the searches. Other discourse, as noted above, concerned civil rights or liberties. For these reasons, the frames identified through discriminant analysis appear to be in harmony with those identified descriptively, in terms of the meaning that they convey.

In addition to identifying the most salient single-word frames used in discourse concerning Sections 214 and 215, the quantitative analysis sought to determine whether frame usage could differentiate the Web sites in each sample. A multivariate procedure

called fuzzy clustering identified two distinct clusters of Web sites within each sample (214 and 215) of the study. Cluster analysis also reports which members of each group are most dominant, or strongly representative, of the group. Discriminant analysis identifies the most statistically significant frames in differentiating between the two groups.

For Section 214, Table 5.8 discusses the key differences found between Clusters One and Two of the discourse in that sample. Table 5.9 identifies the Web sites determined by fuzzy cluster analysis to be most dominant in Cluster One, based on their frame usage. Table 5.10 identifies the Web sites found to be most dominant in Cluster Two. Cluster Two is much more finite in number and is dominated by blogs and online forums. The three institutional sites in the cluster all contain lengthy testimony or discourse about Section 214. Far more Web sites are classified into Cluster One, where Web sites representing organizations are more prominent. Notably, an online newsletter from the American Library Association is identified as the most dominant, or characteristic, of this cluster. Inspection of that newsletter finds a fairly brief passage of text about Section 214. In general, Web sites in this cluster were found to be briefer in how they discussed the section. It was the sites' brevity of discourse that led them to be classified into Cluster One.

Frame profiles were developed for Cluster One and Cluster Two, using the means of words identified through discriminant analysis as statistically significant to the discourse. Table 5.11 shows that the means of the discriminating words are very low for Cluster One and high for Cluster Two. This indicates far more intensity in frame use at the Web sites classified into Cluster Two. While "Law" was the most intense word in

Table 5.8. Key differences in Section 214's Clusters One and Two.

Cluster One	Cluster Two
Large in number	Much smaller in number
Far more organizations present	Dominated by blogs and forums
Low intensity of frame usage	Significantly more intense frame usage
Briefer in length of discourse	Lengthier discourse

Table 5.9. Section 215 Web sites determined by fuzzy cluster analysis to be most dominant in Cluster One of the discourse.

Web Site	Sum of Squared Membership
American Library Association newsletter	1.0000
Jury Fury blog	1.0000
Engatiki blog	1.0000
U.S. Rep. Jan Schakowsky	1.0000
Mick's Place Forums	1.0000
Vanderbilt University Library	1.0000
University System of Georgia	1.0000
Tompkins County Public Library	1.0000
Strike the Root blog	1.0000
Foto Amigos blog	1.0000
Wealth International, Limited	1.0000
Political Forum	1.0000
Bill of Rights Defense Committee	1.0000
PEN American Center	1.0000
U.S. Representative Devin Nunes	1.0000
Yellowworld Forums	1.0000
Winning Argument blog	1.0000
U.S. Sen. Patrick Leahy	0.9999
Talk Left forum	0.9999
Center for Democracy and Technology	0.9999
American Muslim Voice	0.9999
Patriot Act and Boaters forum	0.9999
Michigan Independent Media Center	0.9999
Electronic Privacy Information Center	0.9999
Common Dreams News and Views	0.9998
The Communitarian Network	0.9998
Old Right Pundits	0.9998
American Civil Liberties Union	0.9997
All American Patriots	0.9997
People for the American Way	0.9997
Anti-Collective blog	0.9993
U.S. Sen. Dianne Feinstein	0.9993
Hanover Public Library	0.9992
Bill of Rights.net	0.9989

Note. Sum of squared membership values range from 0 to 1, with 1 being high.

Table 5.10. Section 214 Web sites determined by fuzzy cluster analysis to be most dominant in Cluster Two of the discourse.

Word	Sum of Squared Membership
Motorcycle Forum	0.9382
Association Admiration Aggregation blog	0.9324
New York City Bill of Rights Defense Campaign	0.9306
Jay's Net blog	0.9097
Debate Politics forum	0.9087
MagicBox forum	0.9069
Manhattan Institute for Policy Research	0.9033
Toledo Talk forum	0.8717
Santa Barbara Bill of Rights Defense Committee	0.8661
Third World Traveler	0.8383
Virtue Magazine	0.7670
Federal Bureau of Investigation	0.6215

Note. Sum of squared membership values range from 0 to 1, with 1 being high.

Table 5.11. Section 214 frame profiles for Clusters One and Two.

Word	Cluster 1	Cluster 2
ACTIV(-ity, -ities)	0.9	7.5
AGENT	1.0	4.5
COMMUN(-ity, -ication)	1.8	7.9
COUNTRI(country, -y's, -es)	0.5	8.3
DEPART(-ment, -ments)	0.5	8.0
DOE	0.9	5.7
FBI	1.3	8.8
HOUS(-e)	0.8	4.7
LAW	3.3	17.3
PASS	0.6	3.9
POWER(-s)	2.3	16.1
PRIVACI(privacy)	0.5	5.3
READ	0.8	6.3
SEARCH(-es)	2.0	16.3
SURVEIL(-lance)	2.2	10.7
TERROR	2.0	15.7

p=0.000002, significant at alpha=0.05, Kruskal-Wallis One-Way ANOVA on Ranks Hypotheses.

usage in each cluster, its usage in Web sites classified into Cluster Two was more than

five times as intense. Use of the words "Search" or "Searches" was eight times more

intense in Cluster Two than Cluster One.

For Section 215, Table 5.12 summarizes key differences found between the two clusters

of Web sites. Table 5.13 identifies the Web sites determined by fuzzy cluster analysis to

be most dominant in cluster one, based on their frame usage. Table 5.14 identifies the

Web sites found to be most dominant in cluster two. The first cluster is smaller in number

and contains a number of sites that are blogs or web-based forums or, in the case of the

Federal Bureau of Investigation, where lengthy testimony about the USA Patriot Act is

presented. Only five of the 13 Web sites represent organizations: Harvard University's

Belfer Center, the Federal Bureau of Investigation, the American Civil Liberties Union,

the Technology and Democracy Project, and the Friends Committee on National

Legislation.

In contrast, the far larger number of Web sites identified as dominant in Cluster

Two reported in Table 5.15 contains more organizations; however, Web sites

representing individuals, such as U.S. Rep. Jo Bonner, and blogs are equally, if not more

dominant in the cluster. The presence of organizational Web sites in Cluster Two signals

they are more brief in their discourse about Section 215 than those of Cluster One.

Through comparison of means of frames for Section 214, the Section 215 discourse

appears to be less in depth, on average, than at the Web sites that comprise Section 214's

two clusters. Descriptive statistics were used to obtain the means of significant frames

identified through discriminant analysis as the most significant in discriminating between

the two clusters in the Section 215 discourse. Table 5.15 shows the frame profiles for

Table 5.12. Key differences in Section 215's Clusters One and Two.

Cluster One	Cluster Two
Smaller in number	Much larger in number
Blogs and forums frequent	Mix of Web page types, including ones representing organizations and individuals.
Higher intensity of frame usage	Lower intensity of frame usage
Lengthier discourse	Briefer discourse

Table 5.13. Section 215 Web sites determined by fuzzy cluster analysis to be most dominant in Cluster One of the discourse.

Web Site	Sum of Squared Membership
Harvard University Belfer Center	0.8700
Federal Bureau of Investigation	0.8565
Unknown News	0.8459
Third World Traveler	0.8361
Free Expression Policy Project	0.8051
The Open Society Paradox	0.8043
FindLaw's Legal Commentary	0.8014
The Political Arena	0.7903
American Civil Liberties Union	0.7886
Technology & Democracy Project	0.7844
Trust Makers	0.7832
Blatant Truth	0.7688
Friends Committee on National Legislation	0.7614

Note. Sum of squared membership values range from 0 to 1, with 1 being high.

Table 5.14. Section 215 Web sites determined by fuzzy cluster analysis to be most dominant in Cluster Two of the discourse.

Web Site	Sum of Squared Membership
University of Arizona Tucson Faculty Senate	0.9607
California Psychological Association	0.9600
Common Sense Chronicles blog	0.9583
Patriots to Restore Checks and Balances	0.9537
U.S. Rep. Jo Bonner	0.9535
University of Missouri Freedom of Information Center	0.9533
Muhajabah's Islamic Blogs	0.9528
Lisa's Liturgies Independence Day	0.9520
Mark Earnest blog	0.9518
American Society of Journalists and Authors	0.9503
Linux Security.com	0.9502
Capital District Humanist Society	0.9486
Oh, That Liberal Media blog	0.9485
Counterpunch	0.9485
Societas blog	0.9476
Pennsylvania School Librarians Association	0.9475
U.S. Sen. Pat Roberts	0.9462
Alibris	0.9452
Hightower Lowdown.org	0.9450
Bear Pond Books	0.9445
Keene State College: IT Security	0.9445
U.S. Rep. Adam Schiff	0.9417
Harvard University Library	0.9416
Moby Lives blog	0.9407
Librarian.net	0.9404
GrepLaw discussion forum	0.9395
Landover Baptist.net forum	0.9369
FictionAddition.Net	0.9368
National Council of Teachers of English	0.9357
American Library Association	0.9334
U.S. Rep. Peter DeFazio	0.9334
Kentucky Department for Libraries and Archives	0.9333
U.S. Sen. Lisa Murkowski	0.9317

Note. Sum of squared membership values range from 0 to 1, with 1 being high.

Table 5.15. Section 215 frame profiles for Clusters One and Two.

Word	Cluster One	Cluster Two
ACTIV(-ity, -ities)	2.5	3.3
AMEND(-s, -ment, -ments)	2.3	1.1
AMERICAN(-s)	2.4	1.4
AUTHOR(-s, -ity, ities)	2.7	0.7
CIVIL	2.3	0.7
CONGRESS	1.8	0.7
FEDER(-al)	2.4	0.7
GOVERN(-s, -ment, -ments)	3.4	1.0
INFORM(-s)	4.9	0.9
LAW	5.3	1.2
OBTAIN	2.4	0.4
PERSON	2.5	0.4
POWER	2.3	0.7
PROVISION	3.1	0.9
RECORD	7.2	2.5
SECUR(-e, -es, -ity)	1.9	0.4

p=0.000055, term significant at alpha=0.05, Kruskal-Wallis One-Way ANOVA on Ranks Hypotheses.

Clusters One and Two. The means of the discriminating words are low for Cluster Two and high for Cluster One, indicating more intensity of language at the Web sites classified into Cluster One. The word "record" was among the most intensely used words in each cluster, and its usage in Cluster One was almost double that of Cluster Two. "Law" and "inform" are also far more dominant in Cluster One. Other words such as "activity" or "activities" show more even usage patterns between the two clusters. Overall, however, most of the 16 key words were far stronger in usage in Cluster One than in Cluster Two, pointing to differences in intensity of language use between the two clusters with the greatest intensity occurring in Cluster One.

While the frame profiles for Sections 214 and 215 show a similar pattern, of one cluster having greater intensity of discussion than another, the means values for frame usage are far higher for Cluster Two of Section 214, indicating that the use of frames in that subset of Web sites was far more intense than at any of the other clusters of Web sites. This would seem to indicate that for Web sites in Cluster Two, Section 214 had far greater salience than it did for Web sites in Cluster One or, through comparison of means, than did either of the clusters in the Section 215 sample.

To analyze frame use differences in context with the discourse, the Web sites were sorted by cluster using the group membership value assigned during the fuzzy cluster analysis. For Section 214, Cluster One, the cluster of comparatively low intensity of discussion, contained a far larger number of Web sites, a total of 50 in number. In contrast, Cluster Two, the cluster of high intensity of discussion, contained only 12 Web sites. Cluster membership is provided in Appendix G. The pages were analyzed by Internet domain, page type, viewpoint and level of analysis. Comparisons of the two

clusters confirmed that Web ages classified into Cluster Two generally represent individuals speaking out in blogs or forums, along with organizations providing lengthy discussion, such as Congressional testimony at the Web site of the Federal Bureau of Investigation and political comments at two Bill of Rights Defense Organization Web sites. Absent from this cluster are larger organizations and institutions, such as the American Library Association (ALA), the American Civil Liberties Union (ACLU), libraries, and universities. Publicly funded libraries and universities may be necessarily constrained in activism against federal legislation as organizations, and therefore it is not unexpected that content about the USA Patriot Act was limited at the Web sites of the universities and libraries that were selected to be part of this study's sample. Reasons are less clear why the ACLU and ALA, as well as allied organizations such as the Electronic Frontier Foundation, have limited content about the USA Patriot Act at their Web sites, leading to their classification into Cluster One.

For Section 215, Cluster One, the cluster of comparatively high intensity of discussion, contained 45 Web sites. In contrast, 79 sites were classified into Cluster Two. These sites are identified by cluster membership in Appendix G. Inspection of the Web pages found that the types of Web pages in each cluster were fairly uniform. For example, blogs and political sites were contained in each cluster, as were other forms of content. Web sites classified into Cluster One were found to engage in lengthier discourse about Section 215 than those of Cluster Two, which led them to be classified into Cluster One.

For each section (214 and 215), cross tabulation was used to probe for potential patterns based on cluster membership. Because the cell counts were too low to support

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Chi-square tests, a non-parametric test, Fisher's exact test, based on a hypergeometric distribution, was used to determine whether differences in viewpoint were significant among the various domains. For purposes of comparison, viewpoints "for" and "mixed" were collapsed together. This was done largely because many, if not most, of the mixed viewpoint pages expressed the view that the USA Patriot Act section in question was beneficial yet needed changes, so it seemed more appropriate to group them together with "for" rather than "against." For Section 214, because of the overall low sample size, pages in the .com domain were compared against all other domains combined. Figure 5.1 reports the results for the Section 214 sample, where no statistically significant difference was found on several comparisons. Inspection of the data, however, indicates that had the sample size been bigger—double in size, for instance—there would have been a highly significant difference in the results.

Figure 5.2 reports on cross tab comparisons conducted on the Section 215 sample of Web pages. Because of the similarities of Web pages in the .org and .net domains and their relative high numbers in the sample, Web pages in these two domains were combined and contrasted against all other Web pages in the sample, that is to say, Web pages from domains of .edu, .gov., and .com combined. The tests found no statistically significant difference in viewpoint, as evidenced by p-values that exceeded alphas of .10 for a two-tailed test.

When Web pages in the .org and .net domains were contrasted against Web pages in the .gov domain, statistically significant differences were found for both clusters of Web sites in the Section 215 sample. Figure 5.3 reports on the results of these tests. The finding of significant differences, however, is of limited value given that Web pages

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Cluster One

Domain	For/Mixed	Against
.com	5	9
All other domains combined	21	15

(p=0.210876, Fisher's exact test)

Cluster Two

Domain	For/Mixed	Against
.com	2	3
All other domains combined	5	2

(p=0.558081, Fisher's exact test)

Cluster Three

Domain	For/Mixed	Against
.com	3	6
All other domains combined	16	13

(p=1.000000, Fisher's exact test)

Figure 5.1. Cross tab comparisons for Clusters One and Two of Section 214.

Cluster One

Domain	For/Mixed	Against
.net and .org	13	17
All other domains combined	21	14

(p=0.24732, Fisher's exact test)

Cluster Two

Domain	For/Mixed	Against
.net and .org	11	9
All other domains combined	19	6

(p=0.215793, Fisher's exact test)

Cluster Three

Domain	For/Mixed	Against
.net and .org	2	8
All other domains combined	2	8

(p=1.000000, Fisher's exact test)

Figure 5.2. Cross tab comparisons for Clusters One and Two of Section 215.

Cluster One

Domain	For/Mixed	Against
.net and .org	11	9
.gov	10	0

(p=0.013397, Fisher's exact test)

Cluster Two

Domain	For/Mixed	Against
.net and .org	13	17
.gov	17	0

(p=0.000069, Fisher's exact test)

Cluster Three

Domain	For/Mixed	Against
.net and .org	2	8
.gov	7	0

(p=0.002262, Fisher's exact test)

Figure 5.3. Section 215 cross tab comparison of .gov domain to .net and .org combined.

representing governmental agencies are unlikely to express opinions opposing federal legislation, which Section 215 is.

Hypothesis Three asserts that Web-based discourse from organizations is expected to contain more focused frames and involve a more limited number of frames in comparison to discourse representing individuals and forums. The study's quantitative analysis suggests that this hypothesis might be true, however its measurement was imperfect, as the clusters that most organizations were grouped into also contained Web pages representing individuals and Web forums. To obtain a more direct measurement about whether there was a significant relationship between number of frames (single, multiple) and Web page type, the mean number of frames per Web page type was obtained from the study's descriptive analysis. Table 5.16 reports on the results. Each sample was tested for means difference between groups using univariate analysis of variance (ANOVA). The F-value for the Section 214 sample from this test was equal to .57 (df=6, 55; p=.75). The F-value for the Section 215 sample was equal to 1.82 (df=7, 118; p=.09).

Based on these results, it was concluded that there was no statistically significant difference of means between the Web page categories, indicating that Web pages representing organizations did not differ substantially in number of frames compared to Web pages representing people, such as blogs and online forums. The means, or average number of frames, do indicate that, on average, multiple frames were used across all Web page types, with the largest number, a mean of 4.8, used by commercial firms in connection to Section 215. The overall mean number of frames applied to Section 214 and Section 215 were 3.7 and 3.8 respectively.

Table 5.16. Mean number of frames by Web page type for Sections 214 and 215.

Web page type	Section 214	Section 215
Blogs	4.3	3.4
Online forums	3.5	2.4
Political organizations, individuals	4.4	4.7
Professional associations	4.0	4.4
Universities, libraries, governmental agencies	3.6	3.7
Online entities	4.0	3.7
Commercial firms	0.0	4.8
Religious or race-focused sites	2.3	3.0
Overall mean	3.7	3.8

p=0.562661, term significant at alpha=0.05, Kruskal-Wallis One-Way ANOVA on Ranks Hypotheses.

In addition to the measures identified above, the study's descriptive analysis also examined the degree of apparent openness each Web page had to diverse opinions. Openness was measured in two ways. First, in terms of the level of analysis the Web page appeared to represent as it discussed or debated Section 214 or 215. The sampled Web pages were evaluated to determine how fully issues were being discussed when points of view were communicated concerning the legislation. The page's level of analysis was determined by evaluating the extent to which opposing views were identified or discussed. A page expressing a summary judgment, such as "this act is bad!," was coded as having a low level of analysis. Pages classified into this category generally contained one point of view or singular assessment. Pages that acknowledged views held by others, either in text or through hypertext links to external sites that expressed varying views, were coded as having moderate depth. Pages that quoted or summarized opposing or varying views, with or without hypertext links, as context to the views the pages advocated were coded as having substantial depth. Table 5.17 presents this measure in context with viewpoints expressed about the USA Patriot Act and Sections 214 and 215.

The largest percentage of Web pages in the study, at 43.5%, contained a moderate amount of depth, either by acknowledging with text or hyperlinks different points of view than that being expressed by the Web author. Pages arguing against the legislation tended to contain a moderate amount of depth, a finding that makes intuitive sense, since to challenge a stance, one must first generally identify it.

The second measure of openness for the Web pages concerned whether, by structure, the Web pages allowed site visitors to post their own opinions to the page. Web pages were coded on whether they permitted discussion. For Section 214, 19 Web pages

Table 5.17. Level of analysis in association with point of view for Sections 214 and 215.

Section	Viewpoint	Depth of Information			*Sum*
		Low	**Moderate**	**High**	
214	**For**	1	3	7	11 (5.92%)
	Against	6	16	8	30 (16.1%)
	Mixed	4	10	7	21 (11.3%)
215	**For**	7	9	6	22 (11.8%)
	Against	10	26	9	45 (24.2%)
	Mixed	27	17	13	57 (30.6%)
n		55 (29.6%)	81 (43.5%)	50 (26.8%)	183 (100%)

did, accounting for 30% of the sample. The same number of Web pages in the larger

Section 215 sample did, accounting for 15% of that sample. One contributing factor for

the higher percentage value for Section 214 was its relative higher frequency of

discussion in Web forums.

Discussion of Frame Use

Research Question Two asked what kinds of frames were used to communicate

views about Sections 214 and 215. The results reported above provided answers to this

question and confirmed hypothesis one that, as controversial issues, Section 214 and 215

engendered multiple, complex, and distinct frames rather than simple, limited frames.

This finding affirms Nelson and Oxley's (1999) and Nelson and Willey's (2001)

conceptualization of issue frames, which suggests that the way individuals and

organizations will frame complex issues, such as Sections 214 and 215 of the USA

Patriot Act, may contain multiple elements that fit together to form "a total interpretative

package that makes sense of the issue and suggests a course of action" (Nelson & Willey,

2001, p. 248).

For Section 214, from the descriptive study, the most frequent frames concerned

the section's relation to the 4th Amendment, its low legal standards, surveillance of

citizens, and concerns over records. From the quantitative study, the most salient single-

word frames for the section were law; power(s); search(es); terror; activity (activities);

and surveillance. Doe was also ranked highly but was found upon inspection of the

discourse to be a non-meaningful term, representing does and does not. The descriptive

frames present an overwhelmingly negative or mixed assessment of the section and,

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indeed, the majority of Web sites were negative (48.4%) or mixed (33.9%) in their

assessment of the section compared to only 17.7% in favor of the section. The single-

word frames were less value-laden and appear to be focusing on elements of the section

and its changes to law.

For Section 215, from the descriptive study, the most frequent frames concerned

library and medical records, threats to civil liberties, that the section was overly broad

and had insufficient oversight. Also frequent were calls to action and statements that the

section did have sufficient oversight. From the quantitative study, the most salient single-

word frames for the section were record; law; inform(s); and provision. The descriptive

frames convey a split in opinion over the Section, one that is reflected in how the Web

pages were classified by viewpoint about Section 215. While 36 % of the Web pages

were against the section and 46% were mixed in their assessments, 18% were for the

section. Similar to Section 214, the single-word frames derived from the quantitative

study appear less value-laden but do focus on key elements of the section, in that it

allows access to records while restricting who can be informed of such access. The words

law and provision may be common due to discussion of legal changes that the section

made to federal law.

The overall mean number of frames used in discourse concerning Section 214 was

3.7, and for Section 215, 3.8, providing additional evidence of multiple frames applied to

each section.

Evidence was found that confirmed Hypothesis Two, which asserts that given

their different focus, Sections 214 and 215 are expected to involve differing frames in

general, although with a shared civil liberties issue frame, reflecting one core

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commonality. While a shared civil liberties frame was found, other shared frames were also identified, along with distinctive frames for each section. Table 5.18 summarizes the results of shared and distinctive frames that were applied to each section. As evident in the table, 10 frames were found to be in common. The distinctive frames listed are those found to be most dominant among the frames based on frequency of occurrence. Other distinctive frames were also found for each section.

The discovery of multiple frames, both distinctive and those held in common between the two sections of the USA Patriot Act, supports Goffman's (1974) conceptualization that frames represent a sense-making action on the part of individuals. How individuals and organizations perceive and made sense of public policy, in particular complex policy, is expected to result in multiple frames. The overlap apparent in the 10 shared frames may indicate areas where consensus is occurring, or at least areas of shared perceptions concerning the two sections.

The shared frames may also signal frame amplification and frame transformation on the part of individuals and organizations as they discuss the two sections of the USA Patriot Act. Snow et al. (1986) defined frame amplification as the clarification and invigoration of a specific frame to increase its value to participants, and frame transformation as a redefinition of activities, events, and frames in order to change how targeted participants perceive them. This appears to be occurring for Section 214, which concerns wiretapping, not access to records, yet access to records is a frame that was applied to the section. This is an example that how people and organizations perceive and make sense of policy is a negotiated process, where the facts of the legislation are filtered through their own perceptions and agendas, and those, in turn, are reflected in the frames

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Table 5.18. Common and distinctive frames for Sections 214 and 215.

Section 214	Section 215
Civil liberties	
Access to records	
Problems in clarity	
Oversight	
Calls to modify or reform	
Useful	
Activity or activities	
Law	
Power or Powers	
House/Congress	
Low legal standards	Overly broad
Surveillance of citizens	Caused concern to variety of publics
Changes in law and scope	Targeting on speech or race
Balance of government vs. privacy rights	Calls for repeal or sunset
Harms our democracy	Calls to action (petitions, contact your legislator)
Communication	Inform or informs
Agent	Obtain
Search	Person
Privacy	Civil
Terror	Authorities
Communication	Americans

that are applied to the policy.

Hypothesis Three asserted that Web-based discourse from organizations would contain more focused frames and involve a more limited number of frames in comparison to discourse representing individuals and forums. This hypothesis was not supported by the data. As reported in Table 5.16, organizations in general did not differ substantively from blogs and online forums in the mean number of frames used to discuss Sections 214 and 215. Universities, libraries, and government agencies had slightly fewer frames, an average of 3.6 and 3.7 compared to other organizations, which tended to have means of four frames, but this difference was not statistically significant. The study's quantitative analysis found means of single word frames different between clusters; however, each cluster was made up of a variety of Web page types, so the measurement it offered was less than optimal in terms of focus on key differences between Web pages representing individuals and pages representing organizations.

What the quantitative analysis did discover, however, was that Web sites representing organizations tended to be briefer in how they discussed Sections 214 and 215, based on frequency of occurrence of the single-word frames. For both sections of the USA Patriot Act, the majority of organizations were classified into the cluster of comparatively low intensity of discourse, where intensity was gauged by repeated use of frames. In this sense, organizational Web sites did have a narrower focus, in that they were more succinct in addressing the issues. This finding is in harmony with Swanson's (2004) framing study of Web sites representing Christian apostatic churches, which found the organizations tended to post only the essential facts at their sites.

To summarize, distinctive and common frames were found to be applied to

Section 214 and 215. One common frame was about the sections and civil liberties. This

was expected, as much of the debate in the media has concerned whether or not the

sections and the overall USA Patriot Act constitute threats to citizen's civil liberties. Nine

other shared frames were also found, and they include access to records, oversight,

problems in clarity, and calls to modify or reform, and statements that each section was

useful. No substantial difference was found in the number of frames used by

organizations compared to that of individuals, although organizational Web pages were

found to be briefer in how they addressed Sections 214 and 215 than were individuals as

represented by blogs or Web forums.

Issue Network Analysis

For the study's third component, an analysis of issue networks surrounding

Sections 214 and 215, the URLs of all Web sites selected into the study's previous two

phases were assembled into two Microsoft Word documents, one for each section of

study (214 and 215), and submitted into the Issue Crawler Harvester search engine

located at http://issuecrawler.net/. (Supporting documents for the crawler are located at

http://govcom.org.) As described in the methods chapter and Appendix F, the harvester

used these seeds to develop issue networks by performing a co-link analysis.

The analysis uses the seeds as starting points for its crawl and then subsequent

iterations of the crawl may include organizations not in the initial URLs that receive at

least two links from the starting points. In this way, the software builds a broader and

more complete network. Settings were selected to indicate the search engine should

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search deep pages within a site rather than strictly top-level, or opening, pages of Web sites. Analysis by page was suggested by the software's originator for issue network development because it yields results that are more specific, and the clickable nodes on the maps are generally deep pages at Web sites as opposed to opening pages. With these settings in place, Issue Crawler searched and developed issue maps for Section 214 and 215. The maps were developed on November 13, 2005. The issue networks that resulted were roughly equal in size, as reported in Table 5.19. For both Section 214 and 215, the networks consisted of approximately 95 nodes, or Web sites, and 100 specific Web pages. There were fewer cross links found for Section 214 than for Section 215, 724 compared to 816 in number, a 12.72% difference. This may have to do with the larger number of seeds entered into the Issue Crawler search engine for the Section 215 sample, since that sample was double in size to Section 214.

It is notable that the issue networks, however, are more equal in size than the initial seed size variance would suggest. Reasons for this may have to do with the composition of the nodes in the issue networks. Table 5.20 reports the top 30 nodes for each sample based on number of inlinks from the crawled population. For each section, only two activist type organizations appear in the list of top 30 actors. The other Web pages for each section consist of blogs and news organizations, as well as governmental Web sites, most prominently the White House's own Web site, which ranks 4th for Section 214 and 7th for Section 215. Taken as a whole, the networks would appear to represent a collection of news seeking and news commenting individuals and organizations, as evidenced by inlink patterns to news organizations and to blogs, which

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Table 5.19. Size comparison of Section 214 and 215 issue networks

	Section 214	Section 215
Number of Nodes	94	96
Node Web Pages	100	100
Linkages Within the Network	724	816

Table 5.20. Top 30 actor rankings by inlink count for Sections 214 and 215.

Rank	Section 214		Section 215	
	Actor	Number of Inlinks	Actor	Number of Inlinks
1	Washingtonpost.com	26,761	Washingtonpost.com	7,965
2	Nytimes.com	7,615	Nytimes.com	7,023
3	Latimes.com	2,782	Technorati.com	5,844
4	Whitehouse.gov	2,604	Creativecommons.org	4,261
5	Thomas.loc.gov	1,937	Findlaw.com	4,186
6	Firstgov.gov	1,900	Cnn.com	2,916
7	Gawker.com	1,627	Whitehouse.gov	2,899
8	Commondreams.org	1,617	Thomas.loc.gov	2,621
9	Moveabletype.org	1,222	Latimes.com	2,263
10	Washingtonmonthly.com	1,177	Foxnews.com	1,758
11	Juancole.com	1,105	House.gov	1,528
12	Dailykos.com	1,074	Moveabletype.org	1,524
13	Atrios.blogspot.com	999	Townhall.com	1,504
14	Guardian.co.uk	888	News.bbc.co.uk	1,475
15	Foxnews.com	881	Commondreams.org	1,413
16	House.gov	875	Epic.org	1,256
17	Senate.gov	870	Firstgov.gov	1,245
18	ACLU.org	836	Atrios.blogspot.com	1,072
19	Slate.com	761	ACLU.org	1,011
20	Thenation.com	700	Washingtonmonthly. com	1,004
21	Alternet.org	660	Dailykos.com	959
22	Huffingtonpost.com	646	Juancole.com	943
23	Wonkette.com	595	Senate.gov	939
24	Talkingpointsmemo.com	528	Eff.org	929
25	Drudgereport.com	513	Boingboing.net	896
26	Prospect.org	488	Powerlineblog.com	893
27	Nationalreview.com	481	Nationalreview.com	867
28	Fas.org	459	Counterpunch.org	827
29	Instapundit.com	405	Instapundit.com	766
30	Tompaine.com	391	Salon.com	752

often comment upon the news and current events. The presence of only two activist type

organizations in each list of top 30 set of actors suggests that these types of organizations

were less attractive for linking behavior. While reasons for this are unclear, one

possibility may be the static nature of content at organizational Web pages, compared to

the changing nature of content at news Web sites and at blogs. Blogs also have a strong

propensity for hypertext linking behavior, which may boost their prominence in each of

the two networks. A full listing of actor rankings for each network appears in Appendix

H.

Figure 5.4 and Figure 5.5 present the complete issue networks for Sections 214

and 215. The overall shape of each network is arbitrary, in that the algorithms that

produce it may draw it differently each time it is generated. Placement of the nodes,

however, is significant, with more central nodes placed toward the center of the network.

Both centrality and node size reflects the number of inlinks an actor, or Web page,

receives, from the network. Hypertext links, both uni-directional and bi-directional, are

depicted with lines, which are called edges in the language of social network analysis. A

scalable vector graphic (SVG) plug-in allows interactive viewing of the maps using a

Web browser. Through such viewing, one may click on an actor to identify the node,

determine the number of inlinks and outlinks and see its relation to other actors in the

network. The largest nodes for each of the networks are presented in Table 5.20; Figure

5.4 and Figure 5.5 simply visualize the nodes and depict their interrelations in the issue

networks. Use of the SVG plug-in also allows other options, such as to view the network

by specific domains.

The issue network maps represent domains by color, and inspection of Figure 5.3

Figure 5.4. Issue network map for Section 214.

Note: Green represents Web pages in the .gov domain; orange .org; yellow .net; blue .com; and red .edu.

Figure 5.5. Issue network map for Section 215.

Note: The Issue Crawler software automatically assigns colors to domains, making standardization of colors across maps problematic. In this map, blue represents Web pages in the .com domain; yellow .org; red .gov; green .net; dark green .mil.; and mauve .uk.

and Figure 5.4 show a tendency for the domains to cluster together, that is to hypertext link with one another. That tendency is evident in Figure 5.4 with .org sites in orange and .com sites in blue. In Figure 5.5, a similar tendency to cluster is evident with three domains: .gov in red; .org in yellow; and .com in blue.

To inspect these patterns more closely, a more finite network was attempted for Section 214 and Section 215, depicting the top 30% of actors based on the qualitative strength of ties, which represents the actors with the strongest ties to one another. Each map generated a network error, which indicated that the actors probably do not link to one another in any significant quantity. The top 30% appeared to require hypertext links numbering 3 or more among actors. Issue network maps were successfully generated depicting the top 50% of actors, with the average number of hypertext links being 2. Figure 5.6 and Figure 5.7 present these maps.

In general, the images depict loosely organized networks of actors, given the low number of hypertext links, which are reflected in the small node size of the actors. Clustering patterns are evident. For example, in the map for Section 214 depicted in Figure 5.6, .org Web pages (in orange) tend to link among themselves, as do .com Web pages (in blue), and .gov Web pages (in green). For Section 215, the map shows the same tendencies and, similar to Section 214, the largest nodes are for governmental Web sites, depicted for Section 215 in red in Figure 5.7.

Differences between the two networks emerge, however, when the top actors receiving links from the networks are compared. Table 5.21 analyzes the top actors for each section. For Section 214, the top sites consist of news organizations and

Figure 5.6. Issue network map depicting top 50 actors for Section 214.

Note: The Issue Crawler software automatically assigns colors to domains, making standardization of colors across maps problematic. In this map, blue represents Web pages in the .com domain; orange .org; green .gov; red .edu; yellow .net; light green .int; and gray .uk.

Figure 5.7. Issue network map depicting top 50 actors for Section 215.

Note: The Issue Crawler software automatically assigns colors to domains, making standardization of colors across maps problematic. In this map, blue represents Web pages in the .com domain; yellow .org; red .gov; light green .net; dark green .mil; and mauve .uk.

Table 5.21. Top actors receiving links from the top 50% of each issue network.

Section 214	
1	Christian Science Monitor (csmonitor.com)
2	Defense Link (defenselink.mil)
3	U.S. Department of Education (ed.gov)
4	U.S. Government's Official Web Portal (firstgov.gov)
5	U.S. House of Representatives (house.gov)
6	British Broadcasting Company News (news.bbc.co.uk)
7	U.S. Department of State (state.gov)
8	U.S. Supreme Court (supremecourtus.gov)
9	State of Virginia (va.gov)
10	The Village Voice (villagevoice.com)
11	Cable News Network – CNN (cnn.com)
Section 215	
1	American Association of University Professors (aaup.org)
2	American-Arab Anti Discrimination Committee (adc.org)
3	American Friends Service Committee (afsc.org)
4	American Library Association (ala.org)
5	Cato Institute (cato.org)
6	Fair Vote, the Center for Voting and Democracy (fairvote.org)
7	U.S. House of Representatives (house.gov)
8	U.S. Small Business Administration (sba.gov)
9	U.S. Senate (senate.gov)
10	State of Virginia (va.gov)

governmental sites. For Section 215, however, organizations that could be said to have an activist agenda regarding Section 215 are significantly prominent, representing six of the top 10 actors, with the others being governmental Web sites. The activist organizations include the American Association of University Professors, the American-Arab Anti-Discrimination Committee, and the American Library Association. Their presence indicates these organizations are prominent in the issue networks surrounding Section 215, and the absence of these or other activist organizations in the list for Section 214 suggests a less well- defined network of activist organizations engaged in discussing or debating that section, as compared to Section 215. Additional support for this conclusion is found in the top 30 list of Web sites by inlink count provided in Table 5.20, which shows only two activist organizations for each section of the USA Patriot Act. News sites, blogs, and governmental Web pages are much more prominent in the networks.

Discussion of Issue Networks Surrounding Sections 214 and 215

Research Question Three of this dissertation asks what kinds of issue networks have developed surrounding Sections 214 and 215. The discussion above identified issue networks that had coalesced around each section of the USA Patriot Act. In terms of the number of nodes (Web sites) and number of Web pages, the networks were roughly equal in size; however, Section 215 had 92 additional links within the network, a 12.72% difference, signifying that it was a slightly denser network than that of Section 214. As identified in Table 5.18, the top 30 actors (Web pages) in each network were largely news organizations, blogs, and governmental Web sites. Organizations that could be said to have activist agendas numbered only two per section in the list of top 30 actors. When

the networks were reduced to the top 50 actors overall, among those receiving the most

hypertext links for Section 215 were six organizations that appeared to have a stake, or

agenda, in connection with that section of the USA Patriot Act. This differed

substantially from the list of top actors for Section 214, which consisted of governmental

and news sites, as represented in Table 5.19.

Hypothesis One asserts that because Section 215 has broader ramifications for a

greater number of stakeholders, its issue network is predicted to contain more nodes and

edges than that of Section 214. This hypothesis was supported by the data, although

Section 215 was not markedly larger in size, it was, in node number and hypertext link

count, 12.72% larger.

Research Question Three A asked whether the issue networks for Section 214 and

215 cluster around like sites that express similar views or whether they link diffused

views. Evidence is mixed for this question. While media and governmental sites and

those of Web pages in the .org domain would probably, by type, represent clusters of

similar views—and these clusters are all present for each of the sections—the high

prominence of blogs introduces uncertainty. Because the Issue Crawler software does not

archive Web page content, it is impossible to inspect the views being expressed at the

Web pages as they were captured for this analysis. Some blogs have a tendency to link to

others whose views they oppose. For this reason, it is accepted that linkages involving

diffused views may well be present in the networks.

Research Question Three B asked, in the issue networks, are some Web sites

more or less likely to network? Density and node size in the issue maps provide answers

to this question. For Section 214, in Figure 5.3 the largest nodes and most densely

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clustered are for blogs and governmental sites, although some tight clusters of smaller

sized nodes in the .org domain are also evident. Widely dispersed and not tightly linked

are Web pages in the .edu and .net domains. Figure 5.5, which provides a more closely

focused view of the network, affirms these patterns. Hypertext links can be seen among

the many .org domain Web pages in the network but they are less densely clustered and

smaller in size than pages in the .com and .gov domains.

For Section 215, Figure 5.5. shows tight clusters of large node sizes that echo that

of Section 214, with .gov and .com being most prominent. Web pages in the .org domain

show a less tight pattern of clustering. Most widely dispersed are pages in the .net domain

and one page in the .mil domain. The same patterns are evident in Figure 5.7, which

provides a more closely focused snapshot of the network. Hypertext links among .com

and .org sites are evident in both maps, as evidenced by the co-mingling of blue and

yellow sites, while governmental Web pages, represented in red, tend to link only to

themselves.

For Section 214, Web pages in the government domain also tend to link to

themselves. But for Section 214, there is less intermingling of .org and .com Web pages.

The .coms tend to link among themselves, and the .orgs tend to link among themselves.

This may suggest less flow of information regarding Section 214 as compared to Section

215, or at least less cross-pollination of information across Web site domains.

While .org sites in general have smaller node sizes in the maps than some of the

other domains, the comparatively large number of .org Web pages, particularly for

Section 214, suggests some online community formation, as each of the sites had to have

received two inlinks to be present in the maps, thus original seed Web pages and Web

sites they pointed to were linking to the .org sites. This conclusion is significant since many of the .org domain Web pages may have been advocating a particular policy stance on the sections.

In summary, while issue networks were found to be roughly equal in size for Section 214 and 215, differences emerged when core actors in each network were compared. Section 215 had six organizations that could be said to have activist agendas at the center of its core, as measured by hypertext linking behavior, while Section 214's central core contained news and governmental Web sites. Differences also were evident in how nodes (Web pages) linked to one another in the networks. In Section 215, there was greater co-mingling of pages in the .org and .com domains, suggesting links between individuals and organizations with .org domain Web sites, many of which represent activist organizations, and at the .com Web sites, many of which were identified to be blogs. Section 214's issue map showed greater segregation of these domains.

For each section, governmental Web pages tended to link mostly among themselves. Links among .org sites were shallow, averaging two or fewer links, as evidenced by small node size and a generally dispersed pattern of clustering. The largest node sizes and densest clusters for each section were for governmental Web sites and those in the .com domains, with the .com sites represented by blogs and traditional news media.

Summary

Research Question One of this dissertation asked how were Web sites used for the discussion and debate of public issues, such as the controversies surrounding Sections

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214 and 215 of the USA Patriot Act. The analysis above identified samples of Web sites where discussion and debate were occurring. A smaller sample was found for Section 214, an n of 62, compared to that of Section 215, an n of 124. Reasons for this difference are unclear but may be attributable in part due to the greater traction, or salience, that Section 215 had for a variety of people and organizations. A temporal bias may also exist in that sampling was restricted to a three month period, and Section 215 may have been more prominent as an issue during that period. For whatever reason, despite the sample size difference, people and organizations were found to be using Web sites to discuss and debate the two sections. The study found discourse to be occurring across a range of Web page types, from blogs and forums to organizational Web sites that ranged in subject matter from the American-Arab Anti Discrimination Committee to the White House's own Web page. Also prominent in the samples were Web pages representing members of the House and Senate.

Frame analysis of the discourse found distinct frames applied to each section and also common ones. Hypothesis Two of the frame study had asserted that one common frame, that of civil liberties, would be found, when in fact, several common frames were identified. The study's quantitative frame analysis also found common and distinct frames applied to the sections.

While the study speculated that organizations would use fewer, more focused frames, this was discovered not to be the case. On average, organizations used roughly the same number of frames as did other Web page types. The quantitative study did discover, however, that organizational Web pages tended to be briefer in their discourse, as determined by fuzzy cluster analysis.

Inspection of the issue networks that surround each section found Section 215's network to be slightly larger than that of Section 214. Each contained a mixture of Web page types but differences emerged in linking behavior of Section 215 compared to Section 214, with greater co-mingling of .org and .com Web pages in Section 215's network. Core actors also differed, with organizations that could be said to be activists in nature at the core of Section 215's network, while Section 214's contained news and governmental Web pages. In each network, the most dense clusters of sites and most active hypertext linking occurred among Web pages in .com and .gov domains, and in each network, .gov domains tended to link mostly to themselves.

The ramifications of these findings will be discussed further in Chapter 6: Conclusions and Discussions.

CHAPTER VI
CONCLUSIONS AND DISCUSSION

This study combined descriptive and quantitative frame analyses with an issue network analysis to gain a better understanding of how people and organizations were using the World Wide Web to discuss and debate a public policy. The descriptive and quantitative analyses detailed the actual wording used in discussion of the issues, while the issue network analysis probed hypertext linking among Web pages where discussion was occurring. Sections 214 and 215 of the USA Patriot Act provided a contentious national issue with multiple stakeholders presumed to be attempting to frame issues connected to the two sections. The focus on two sections allowed frame and issue network contrasts to be drawn.

Discussion of Findings

Two central questions guided this study. First is whether there is evidence of an Internet effect in which the Web, through its technological capabilities, is being used to polarize, fragment, or synthesize views on issues of public interest. The second fundamental question is whether there is a joining, or symbiosis, evident in Web content and structure as measured through hypertext linking patterns and the content that resides at Web sites. Specific to this second question is whether patterns exist that indicate like-minded groups are coming together to form online community or whether the hypertext links indicate other, perhaps more oppositional, behavior. The study sought and obtained answers to each question.

Evidence of Internet Effect

A key finding of the descriptive frame analysis was that the majority of Web pages in the study's two sections, at 43.5%, were coded as moderate in their level of analysis, meaning that they acknowledged the existence of opposing views as they discussed their own views on the public policy. An additional 26.8% discussed at substantial depth, by quoting or summarizing opinions in variance with their own in their discussions. In this way, 70% of the Web pages in the study appeared to be engaging in discourse that did not consist of summary judgments and instead appeared more synthesizing in nature, at least to the extent that divergent views were being acknowledged.

Several other dimensions of the study provide additional support for the conclusion that, for many of the Web pages in the sample, the overall tendency was one of synthesis. First, a considerably large percentage of Web pages for each section were coded as mixed in their viewpoints about the overall section: 34% for Section 214, and 46% for Section 215, meaning the page authors saw both positive and negative aspects of the legislation. Second, multiple frames were found to be used to describe the legislation, a mean of four frames, when averaged. This indicates that the Web authors perceived multiple dimensions to the legislation. Third, both the descriptive and the quantitative frame analysis found common frames within the Section 214 and 215 discourse and across both samples. In this way, opinions were found to be overlapping, although distinct frames were also found. Little evidence was found, however, of master or issue frames, apart from general groupings such as "this policy has problems." Instead, frames appeared narrow and specific.

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To address the technological capabilities of the Internet, each Web page was evaluated for the presence of Web features that would allow site visitors to post their own comments to the page. For Section 214, 19 Web pages did, accounting for 30% of the sample. The same number of Web pages in the larger Section 215 sample did, accounting for 15% of that sample. These are low numbers; however, most organizational Web sites tend not to allow site visitors to post comments, so the low numbers are of no surprise.

A second measure of the impact of the Internet's technological capabilities on policy discourse came from the study's issue network analysis. The issue networks that were constructed, through co-link analysis, around Sections 214 and 215 contained Web sites representing news media, commercial interests, governmental agencies, and non-profits. The comparatively large presence of .org sites in each network was significant, given that many organizations were expected to be advocating particular stances on the policy issues. While their node size and centrality were, in general, much smaller than the media and governmental sites, they were present as actors in the networks and prominent in number.

The networks indicated a fragmentizing effect for governmental Web pages because they tended to link only to each other. For others, there was a networking effect. For example, hypertext links were highly evident among .org Web pages and .com Web pages, and between these domains. Due to the limitations of the Issue Network Harvester software, it is impossible to inspect content at the specific nodes to affirm this conclusion, however the apparent tendency evident in the issue networks is one of synthesis.

Web Content and Structure

As mentioned above, a network effect was found between Web content and Web structure, with patterns found among the hypertext linkages of Web pages that indicated that like-minded groups were coming together to form online communities. In this way, a symbiosis of Web content and structure appears to exist, affirming Castell's (2001) belief that the networks the Web facilitates are simultaneously social and technical, serving to facilitate human communication through the hypertext code that forms and links Web sites. Inspection of the issue network maps showed that Web pages tended to cluster by domain, although there is some intermingling of .com and .org sites. The presence of a large number of .org Web pages and of .com, which includes blog Web page types, would appear indicative that online communities were indeed forming since to be present in the networks, each of these nodes had to receive links from, or link to, other actors in the overall network.

Close inspection of node names for the Section 214 network appears to indicate communities of like-minded organizations. Specifically, among the .org Web pages present in the network are the Electronic Privacy Information Center (EPIC), the Center for Democracy and Technology (CDT), the American Civil Liberties Union (ACLU), and Democratic Media. These organizations have much in common in their stances on the USA Patriot Act. Other sub-clusters of like-minded organizations are evident in the issue network for Section 214 and for 215. Governmental and news media sites, for example, in both networks exist as sub clusters. What is less clear is how blogs relate to one another. In fact, from the data gathered by the Issue Network Harvester, it is impossible to know if the hypertext links that connect them reflect like-minded networks or

oppositional ones. For this study, given its limitations, their linkage patterns remain an unknown.

Organizational Use of Web Sites

Another area of inquiry for this study concerned issue advocacy organizations. Were these organizations finding the Internet central to their operations, and were these organizations, in turn, viewed as key players in online discussion and debate over the issues they hold interest in.

The randomized and stratified sampling process used in the study identified and included a large number of organizational Web sites. Present in the study were the American Library Association, the Electronic Frontier Foundation, the American Civil Liberties Union, the American Bar Association, the Bill of Rights Defense Committee, and the American Muslim Voice, among many others.

The descriptive frame analysis found that these organizations, on average, used the same number of frames in discourse that other categories of Web page types did, indicating that a similar number of points were being raised about the issues. The study's quantitative frame analysis found the organizations were, overall, more succinct in their discussions, though, as organizational Web pages were consistently classified into the cluster of less intense discourse, with intensity measured by frequency of word use. A newsletter representing the American Library Association that contained two paragraphs of discourse was identified through fuzzy cluster analysis as the most dominant of one of the clusters, indicating that discussion among organizational Web pages was indeed brief

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in nature. But the organizations were indeed using their Web sites to communicate views on policy.

Were the organizations viewed as central to policy discussion and debate surrounding Sections 214 and 215? Without question, organizational Web sites are present in each of the issue networks. This indicates they were viewed as valuable resources for information as measured by in-links from other Web pages. For each of the network maps, however, news organizations and governmental Web pages received more in-links, as reflected by their larger node size. This may have to do with the changing nature of information at these Web sites more than anything, although this can only be accepted as an assumption. In general news and governmental sites were more likely to have changing content compared to organizational sites, which can be, but are not always, static in nature (Howlett, 2002; McNutt, 2006; Swanson, 2004).

Frame Analysis

The study employed two forms of frame analysis: descriptive, in which the frames were applied through visual inspection of the text, and quantitative, which was based solely on word frequency of occurrence. Each found areas of frame overlap and distinctive frames and, when used in combination, provided support for the other's conclusions. The quantitative analysis' focus on single word usage was found problematic in terms of frame interpretation, since only the most general conclusions could be drawn about what was meant by co-occurrences of words such as "law," "power," and "activities." Analysis of two- and three-word phrases is possible using the software and techniques that this study employed and may possibly have led to more

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meaningful interpretations, although the natural variations in spoken language, such as the discourse commonly used at blogs, would and will remain a challenge for strictly quantitative frame analysis that measures based on word frequency. Some measure of descriptive interpretation appears necessary, particularly in order to find and identify master frames.

Issue Network Analysis

The issue network maps and associated data proved useful to this study's analysis of hypertext linking behavior at Web sites. What could be a laborious process of researching by visual inspection hypertext links that connect one Web site to another was performed efficiently by the Issue Network Harvester. The maps generated by the software are legible and understandable to use. The approach appears to offer researchers much in the way of a valuable tool to understand the science of networking on the Web.

Contributions of the Study

The study makes methodological contributions through its use of issue network analysis in connection with frame analysis to probe policy discussion and debate associated with the USA Patriot Act. No previous study using both approaches is known to the author. Issue network analysis remains a relatively new development and holds promise for a variety of research inquiries associated with the World Wide Web. New tools and features are being added by its development team that expand the software's capabilities and value to researchers.

The use of triangulation—combining issue network analysis with descriptive and quantitative frame analysis—was found to be effective in this study and is an approach increasingly advocated by others, in general and specifically for addressing issues of complexity and multiple dimensions. With triangulation, each method contributes to the other, providing support that corroborates or extends the findings of the other, while contributing understanding of its own. This study's grounding in two theoretical perspectives served a similar purpose: to enhance and extend the other. Triangulation is an approach this author recommended for other studies.

The study's combination of descriptive and quantitative approaches represents a mixed method design that is growing in popularity among graduate students and researchers in the social, behavioral, and health sciences. Evidence of growth for the mixed methods research approach includes a new journal focused on the topic area planned by Sage to debut in January 2007 and existing texts by Tashakkori and Teddlie (2003) and Denzin and Lincoln (2002); as well as dozens of articles, among them Blustein et al. (1997); Grieser et al. (2006); Idler, Hudson and Leventhal (1999) Nordenmark and Nyman (2003); and Yaunch and Steudel (2003) to name a few. The multidisciplinary and international nature of the field of mixed methods research inquiry points to its broad and growing appeal among researchers.

The study pioneered in using fuzzy cluster analysis, an advanced multivariate technique, to probe for differences among Web sites in the study's two samples. The technique proved efficient and valuable and was effective in differentiating the sites based on word usage, as well as in identifying, without knowing in advance, which of the Web sites were most dominant, or representative, of their particular cluster. Used

together, fuzzy clustering and discriminant analysis appear to be capable tools for discourse analysis, although, as noted above, more value may be obtained by expanding from one-word analysis to examination of phrases, which is something the software is capable of handling.

When compared to factor analysis, an approach commonly used in framing studies, fuzzy clustering offers two advantages. A researcher does not have to specify in advance how many clusters are expected. Instead the analysis identifies the best fit for the data, and fuzzy clustering indicates degree of dominance, as assessed by degree of belonging, to each cluster (Bezdek, 1981; Dunn, 1974; Seaver, Triantis & Hoopes, 2004; Seaver, Triantis & Reeves, 1999; and Zimmerman, 1991). For this reason, the approach appears to offer substantive advantages over factor analysis to communications researchers seeking to understand variance in research samples.

The approach also represents a significant step forward from previous frame mapping techniques, which depended upon researcher fiat to select the terms that were inputted as frames to be mapped. Using fuzzy cluster analysis, mapping may be conducted upon the principal components of a sample of unique words in concert with group membership. In this way, researcher fiat is removed from the picture, and the resultant maps (for this study, provided in Appendix G) show placement of each Web site in connection with others based on its usage of unique words in the discourse.

The dissertation contributes to theory by offering research-based information about how people and organizations are using the Web to foster and frame a public issue. As the literature review documented, much of the scholarly writing on the subject has been speculative in nature. Here, with this study, is a solid case study in which discourse

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was documented and analyzed. People and organizations were found to be using the Web for policy-related discourse. The high Google hits for each section of the USA Patriot Act suggests the Internet is used for information and discussion. The range and scope of Web site types validates that conclusion. The depth of argument, number of frames, and number of hypertext linkages found by this study suggest that the Internet is used for debate and discussion and, in this way, non-commercial use of the Internet for civic purposes is evident and so is online community formation, as evidenced by the issue network analysis.

Evidence was also found of Web sites building frame consensus through hypertext links evident in the maps that clustered like-minded organizations. Additional evidence of frame consensus came from the descriptive and quantitative frame analyses, which identified common frames for both Section 214 and 215.

Returning to the idea of an Internet effect, from a technological standpoint, the Web allows for greater complexity and sophistication in discussion and community building. Some evidence of this was found in this study, in the 30% of Section 214 and 15% of Section 215 Web pages that allowed users to post comments. The issue network analysis provided greater insight, by identifying patterns of hypertext linking among actors in each network. Organizations and blogs were found to be actively engaged in linking behaviors, suggesting that the structural capabilities of the Web were being put to use during discussion and debate of the issues. Inspection of individual nodes showed communities of like-minded organizations and individuals forming.

The study's finding of a linkage between Web content and Web structure marks an empirical contribution to theory, as this study provides solid evidence to affirm the

theories of Castells (2001a, 2001b) and others that on the Web, content and structure are inherently linked, with hypertext patterns facilitating a network effect in which like-minded individuals and organizations create online community.

Together, these findings constitute the first study known to its author that documents how the Web is used in issue advocacy in discussion and debate of a public issue. Its research findings are expected to be of value to scholars in political science, seeking understanding of online dimensions of issue advocacy, as well as theorists with interest in the continuing evolution of the Internet as a dynamic communication medium.

Limitations of the Study

This study was limited by its sampling technique, which resulted in unequal size of the study's two samples. The approach of applying exclusion criteria after initial sampling limited valuable sites and could be overcome by other studies by attempting larger initial samples or by determining how to exclude first and then sample.

Practical issues associated with the limited nature of a dissertation exerted their own limits on the study. These include the limited time frame that was examined and a finite sample size.

The study was limited temporally, as it examined one slice of time in 2005, and the discourse and issue networks may have differed markedly at a period closer to the December 31 scheduled expiration for Section 214 and 215. Whether they did remains an unknown.

The software packages exerted their own limits. QDA Miner, while multi-featured, was found to perform awkwardly, and it proved difficult to extract word

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frequencies from it to import into the statistical software, NCSS. The Issue Crawler Harvester worked efficiently, but only returned root URLs of the Web pages it crawled. This constraint limited interpretation of the issue networks, as it became impossible to validate that the networks that were occurring were indeed centered on the tracked issues and were not, in fact, connected to other issues also in discussion at the Web sites. This limitation in particular affected interpretation of how blogs related to one another, as they may or may not have been connecting on shared interests.

The value of the study's quantitative frame analysis was constrained by its focus on single word occurrences. It may have been far more meaningful to focus on multi-word phrases, although language variation remains a challenge for a strictly quantitative study. For this study, it was decided to keep the analysis on single words due to the low sample size for Section 214. Phrases would have been more meaningful, potentially; however, their frequency of use would be expected to be lower and given such a small data set, single word analysis seemed wiser. Previous quantitative frame analysis studies have focused on single-word occurrence (Crawley, 2005; Rallos, 1995; Riechert, 1996; Sitton, 2004). The methods used in this study make multiple word analysis possible, but would perform best with far larger sample sizes than that of this study because of the natural variation in language use.

Finally, the greatest limitation of the study was its focus on one set of issues at one point of time. While providing insights, the results of this study may not be broadly generalizable. Other issues may evolve in radically different ways and involve differing sets of actors who, in turn, communicate in different ways than those examined in this study. An example would be of a network that makes more intensive usage of hypertext

linkages. Such a network could suggest differing research approaches to attempt to better

capture how those linkages interplay with Web content as actors discuss and debate the

issue that unites them.

A connected limit was the way in which discourse was sampled. No upper limit

was placed on length of discourse, and this practice may have, by its nature, allowed

blogs to be clustered separately from more mainstream Web sites, given that blogs may

contain discourse of any length the Web author chooses. Standardizing the amount of

words chosen from each Web site for a quantitative study might have led to different

results. To achieve that, it would have been necessary to find a different software package

that was more agile in how it performed text selection.

The inherent limitations of this study were based on choice of approach and, apart

from the issues cited above, were not driven by limits of the research tools used. The

tools themselves are flexible in nature and offer promise and potential for future Internet

studies of issue networks and online community.

Areas for Future Research

Online communities can coalesce on a myriad of topics. The triangulation

technique used by this study appear to be a powerful model in which to study other online

communities, in particular how they identify themselves with a topic and how, through

hypertext links, they self-organize.

Issue networks can change dramatically over time, and Govcom.org's Issue

Network Harvester may be configured to repeat its Web crawls at intervals selected by

the researcher. For future studies, this ability to explore network growth and change is an

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approach that would appear to hold tremendous value, and the element of time itself is a dynamic element for issue network and frame analysis studies. Issues have lifecycles and stages through which they progress, and the intensity of language use and degree of hypertext linking that occurs between actors in issue networks may vary markedly from point to point in a time series. Exploration of frames and issue networks across time is an area that begs for further research.

An additional capability of Govcom.org's issue network software is that it allows evaluation of issue networks by domain subsets. In this way, the particular role of .org Web sites, or sites in other domains, within the larger network may be studied and evaluated. Again, returning to the idea of triangulation, the present shortcoming of the Issue Network Harvester in not returning full URLs of specific pages, may be overcome through triangulation by specifically searching each Web site at a time that coincides or immediately follows a scheduled network crawl by the Issue Harvester software.

Much remains to be known about online communities and democracy, particularly at the local and state levels. While books and journal articles quickly document how federal candidates use Internet technologies during campaign cycles, and their usage of the technology often is reported as news, far fewer studies are published about more grassroots level activities occurring at state and local levels, and these remain a rich vein for future studies.

The model developed by this study may be used to track other communities on the network, as well, such as those gathered on social issues. Examples of this could include instances of assertive Christianity, in which a faith campaigns on a particular social stance, or issues of immigrant labor. Examination of a variety of networks would provide

a more comprehensive answer this study's question about whether, through the Internet's capabilities, individuals and groups are using the Web to polarize, synthesize, or fragmentize themselves on issues. That tendency may, in fact, vary by issue, and knowledge of which issues are "Internet divisive" and which are not would contribute to understanding of the network's ongoing evolution and its continuing usage for non-commercial, civic discourse.

Another area ripe for exploration is whether the online discussions and community formation frame bridging or frame extending in nature. With the former, actors in the system help construct the frames used in discourse through their social interactions. With the latter, their discussion and debate extends the boundaries of their primary focus to encompass interests or points of view that are highly salient to others outside their circle (Snow et al., 1986). Through detailed frame analysis, this could be determined on an issue, in particular through analysis of key phrases, which the software and statistical techniques used in this study are capable of supporting.

Cross-cultural studies are also possible with this study's triangulation model of frame and issue network analysis. Are discussions and community building similar across cultures, nations, or when truly international in scope? The issue network analysis software makes this topic easy to evaluate. Frame analysis may be more problematic due to language differences but when English language is obtainable, such comparisons can be made and researched.

In this way, the study provides the groundwork of a multi-method approach that appears to hold great potential for a broad variety of research applications on topics of current and future interest. The study's research tools are adaptable, and the theoretical

methodologies that inform them are flexible in nature, making them excellently suited to the evolving world of Internet discourse.

The USA Patriot Act in 2005

As this study proceeded in 2005, so did legislative review of the USA Patriot Act. The House and Senate marked up bills containing some modification of the legislation and extending the sections subject to sunset on December 31, including Sections 214 and 215. By mid November, House and Senate negotiators were said to have reached a tentative agreement on terms to extend the USA Patriot Act, with the requirement that the Department of Justice report more fully on its requests for information about ordinary citizens. The apparent ease by which the legislation moved through processes of review and mark up was a surprise to many, given the controversies and charges that have surrounded the act (Abramson, 2005b). One analyst expressed the view that activist organizations in opposition to the USA Patriot Act had difficulties in opposing the act because they could cite very few specific examples of the act's misuse (Abramson, 2005b). Without examples, they could not get traction on the issue.

While this study did not code for the presence or absence of specific examples of problems, the descriptive study did code for secrecy, a term cited frequently in text references about the difficulty of determining whether and how the USA Patriot Act had been used. A measure of the level of abstraction in future studies of conflicts would appear to hold value as a measure of debate and the degree of traction or specificity that debaters address in advocating their position.

The issue network analysis maps could be said to represent a problem in traction, as well. Pundits, media, and activist groups were densely connected, but few other forms of actors existed in the networks. Absent were legislators and hypertext linkages to and among social- and civic-focused groups across the nation. Citizens and legislators together potentially had influence in 2005, given that the legislators were to decide upon whether to extend key USA Patriot Act provisions. From the network maps, it is apparent that activism about the act had traction among a core of national organizations but the linkage patterns offer little support that the activism extended much beyond activities by these groups.

Wrangling between the House and Senate occurred in December on the legislation, and an eight-week extension was granted to permit more debate. The legislation was ultimately renewed on March 2, 2006 with a vote of 89 to 11 in the Senate and on March 7, with a vote of 280 to 138 in the House. The renewal was signed into law by President Bush on March 9, 2006.

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APPENDICES

APPENDIX A

WEB PAGES INCLUDED IN THE STUDY

Table A-1. Web pages included in the study

Domain	Number	Name	URL	Google Rank	Notes
214 com	1	Third World Traveler	http://www.thirdworldtraveler.com/Civil_Liberties/USAPatriotAct_Uncensored.html	14	progre-ssive, alterna-tive news source
	2	The Fourth Rail: History, Politics and the War on Terror	http://billroggio.com/archives/2004/05/a_critical_issu.php	19	blog
	3	Winning Argument blogspot	http://winningargument.blogspot.com/2004/06/congress-should-not-renew-patriot-act.html	29	blog focus-ed on debate
	4	Laugh at Liberals	http://www.laughatliberals.com/blog/archives/2005/the-usa-patriot-act-my-oh-my/	40	blog
	5	Patriot Debates	http://www.patriotdebates.com/214-and-215-2	61	debate among 2 posters
	6	Talk Left	http://talkleft.com/new_archives/007200.html	80	online forum
	7	Strike the Root	http://www.strike-the-root.com/52/younga/younga3.html	113	blog
	8	Foto Amigos	http://www.fotoamigo.com/knowledge05/	116	blog
	9	Guardster: Your Privacy Headquarters	http://www.guardster.com/modules.php?op=modload&name=News&file=article&sid=244	140	
	10	Old Right Pundits	http://oldright.com/pundits/2005/01/controversial-patriot-act-provisions.html	145	
	11	Jury Fury	http://quietpoly.com/juryfury/debates/lawenforcement/patriotact-inlightofpolicebrutality.html	159	blog

Domain	Number	Name	URL	Google Rank	Notes
	12	d'Anconia Online	http://www.d-anconia.com/2005/07/24/ari-watch-part-2-growth-in-government-power-since-911/	168	blog
	13	Jay's Net	http://www.jaysnet.com/666patriotact.html	175	blog
	14	Toledo Talk	http://www.toledotalk.com/cgi-bin/comments.pl/16/1292	203	online forum
	15	Mike Wicks	http://www.mindspring.com/~mike.wicks/hr3162.html	209	blog
	16	All American Patriots	http://www.allamericanpatriots.com/modules/news/article.php?storyid=8924	210	
	17	Debate Politics	http://www.debatepolitics.com/archive/index.php/t-1721.html	268	online forum
	18	Sonoran Sunsets	http://www.sonoran-sunsets.com/wartruth.html	279	
	19	Wealth International, Limited	http://www.trustprofessionals.com/news/2005/2005-08.html	280	
	20	The Magic Box	http://www.the-magicbox.com/forums/archive/index.php/t-5613.html	290	online forum
	21	Anti-Collective: I am the Last Anti-federalist	http://anticollective.blogspot.com/2005/08/usa-patriot-act.html	343	blog
214 org	1	EPIC	http://www.epic.org/privacy/terrorism/usapatriot/	3	

Table A-1. Continued

Domain	Number	Name	URL	Google Rank	Notes
	2	Electronic Frontier Foundation (EFF)	http://www.eff.org/patriot/sunset/214.php	5	
	3	American Civil Liberties Union (ACLU)	http://action.aclu.org/reformthepatriotact/safe.html	9	
	4	American Bar Association	http://www.abanet.org/irr/hr/winter02/podesta.html	12	
	5	Center for Democracy & Technology	http://www.cdt.org/security/usapatriot/overview2005.php	13	
	6	Manhattan Institute for Policy Research	http://www.manhattan-institute.org/html/mac_donald04-19-05.htm	19	
	7	PEN American Center	http://www.pen.org/viewmedia.php/prmMID/64/prmID/438	20	
	8	Tompkins County Public Library	http://www.tcpl.org/patriot/alaoifpatriot.html	23	
	9	People for the American Way	http://www.pfaw.org/pfaw/general/default.aspx?oid=9392&print=yes	27	
	10	Bill of Rights Defense Committee	http://www.bordc.org/involved/student/schlau-speech.php	28	
	11	American Muslim Voice	http://www.amuslimvoice.org/html/body_surveillence.html	131	Muslim group
	12	Populist Party of America	http://www.populistamerica.com/new_patriot_act_legislation_destroys_liberty	166	
	13	Common Dreams	http://www.commondreams.org/cgi-bin/print.cgi?file=/views02/0429-02.htm	169	

Domain	Number	Name	URL	Google Rank	Notes
	14	New York City Bill of Rights Defense Campaign	http://www.nycbordc.org/index.php?option=com_content&task=view&id=62&Itemid=53	178	
	15	Santa Barbara Bill of Rights Defense Committee	http://www.sb-bordc.org/remarks2.htm	208	
	16	Virtue Magazine	http://www.virtuemag.org/articles/158	228	
	17	Michigan Independent Media Center: Community-Based Participatory Media	http://michiganimc.org/newswire/display/11078/index.php	235	
	18	Hanover Public Library	http://www.hanoverlibrary.org/board%20documents/privacy%20confidentiality%20appendix.htm	239	
	19	Yellowworld Forums	http://forums.yellowworld.org/archive/index.php/t-15170.html	242	online forum, Asian group
	20	Truthout	http://www.truthout.org/docs_04/082104C.shtml	245	
	21	Ratical:Forfeiting Freedom	http://www.ratical.org/ratville/CAH/CAofUSAPA.html#IIIC	282	blog
	22	Marblehead (MA.) Bill of Rights Defense Committee	http://www. arblehead-bordc.org/rovingwarrants.html	283	

Table A-1. Continued

Domain	Number	Name	URL	Google Rank	Notes
	23	American Library Association Newsletter on Intellectual Freedom	https://members.ala.org/nif/v51n5/fbi.html	287	
	24	Institute for Global Engagement	http://www.globalengagement.org/issues/2003/12/patriot.htm	331	
	25	Engatiki.org	http://www.engatiki.org/typecast/uncategorized/	334	blog
214 net	1	American Muslim Perspective	http://www.civilrights.ghazali.net/html/body_pa_guide-3.html	1	
	2	Spinning Globe	http://www.spinningglobe.net/demattack.htm	3	blog
	3	Association Admiration Aggregation	http://www.theassociation.net/cgi-bin/cwload.cgi?page=patriotactpage2	5	blog
	4	Spamcop.net	http://news.spamcop.net/pipermail/spamcop-social/2005-January/052620.html	7	discussion forum
	5	Bill of Rights.net	http://billofrights.net/achillingintrusion.htm	8	
	6	Armageddononline.net	http://www.armageddononline.net/forums/archive/index.php/t-3483.html	18	discussion forum
	7	Motorcycle Forum	http://www.motorcycle-forum.net/sportbike/OT___Economics_Whats_happening_on_the_ground_284445.html	36	discussion forum
	8	Political Forums	http://www.politicalforums.net/index.php?showtopic=8971	40	discussion forum

Table A-1. Continued

Domain	Number	Name	URL	Google Rank	Notes
	9	Patriot Act and Boaters	http://www.serious-fun.net/new-508881-16.html	59	discus-sion forum
	10	Mick's Forums	http://www.micksmothers.net /forum/viewtopic.php?p=198 2&sid=f175f5900af318fa766 841415e0a2253	66	discus-sion forum
214 gov	1	Preserving Life & Liberty	http://www.lifeandliberty.gov /agpatriotactrevision.htm	1	
	2	U.S. Senator Dianne Feinstein	http://feinstein.senate.gov/05r eleases/r-patriot.htm	3	
	3	Federal Bureau of Investigation	http://www.fbi.gov/congress/ congress05/caproni052405.ht m	10	
	4	U.S. Senator Patrick Leahy	http://leahy.senate.gov/press/ 200505/051005.html	14	
	5	U.S. Representative Devin Nunes	http://www.nunes.house.gov/ PatriotAct.htm	19	
	6	U.S. Representative Jan Schakowsky	http://www.house.gov/ ande rbilt/press2003/pr09_24_200 3patriotact.html	22	
214 edu	1	Vanderbilt University Science and Engineering Library	http://www.library. anderbil t.edu/science/info/patriot.htm	2	
	2	Georgia Board of Regents Homeland Security Committee	http://www.usg.edu/homelan dsecurity/presentations/pa_li brary.phtml	9	

Table A-1. Continued

Domain	Number	Name	URL	Google Rank	Notes
	3	The Communitarian Network: Comments by Amitai Etzioni	http://www.gwu.edu/~ccps/pop_Rights.html	48	
215 com	1	Campaign for Reader Privacy	http://www.readerprivacy.org/info.jsp	4	
	2	Powells Books: The Bill of Rights Needs You	http://www.powells.com/readerprivacy.html	14	
	3	FindLaw's Legal Commentary	http://writ.news.findlaw.com/ramasastry/20050420.html	15	
	4	Reason Online	http://www.reason.com/links/links040605.shtml	21	
	5	Town Hall.com: Commentary	http://www.townhall.com/opinion/columns/jeffjacoby/2004/05/24/11794.html	24	
	6	American Booksellers Foundation	http://www.abffe.com/ABA.htm	25	
	7	Journal of Lurker	http://www.lisnews.com/~*Lurker/journal/3558	41	
	8	TomPaine.common sense	http://www.tompaine.com/articles/20050616/patriots_against_usa_patriot.php	54	
	9	Pejmanesque: More Patriot Act Myths Demolished	http://www.pejmanesque.com/archives/007247.html	73	blog
	10	Bear Pond Books: Our Response to Section 215	http://www.bearpondbooks.com/NASApp/store/IndexJsp;jsessionid=aIfRPBhnUaSh?s=storeinfo&page=214089	88	

Domain	Number	Name	URL	Google Rank	Notes
	11	Third World Traveler	http://www.thirdworldtraveler.com/Civil_Liberties/USAPatriotAct_Uncensored.html	92	
	12	Moby Lives	http://www.mobylives.com/West_Patriot.html	108	blog
	13	Patriot Debates	http://www.patriotdebates.com/sections-214-and-215	127	discussion forum
	14	Holt Uncensored	http://www.holtuncensored.com/members/column387.html	130	blog
	15	Opera Community: The Lounge's Page	http://my.opera.com/lounge/forums/topic.dml?id=37418	139	discussion forum
	16	Alibris: Book Groups Call for Patriot Act Amendment	http://www.alibris.com/about/press_releases/051503.cfm	141	
	17	Comic Book Resources	http://www.comicbookresources.com/news/newsitem.cgi?id=2922	145	
	18	U.S. Rep Earl Blumenauer	http://www.earlblumenauer.com/cgi-bin/display.cgi?page=sarasonpatact	152	
	19	Maud Newton	http://maudnewton.com/blog/index.php?p=4514	178	blog
	20	CounterPunch: Librarians as FBI Extension Agents	http://www.counterpunch.com/price03062003.html	180	
	21	Laugh at Liberals	http://www.laughatliberals.com/blog/archives/2005/100-people-who-are-screwing-up-america/#comment-10155	185	blog, forum
	22	I Protest: Ashcroftian Lies	http://www.exit.com/blog/archives/frank/000240.html	188	blog

Domain	Number	Name	URL	Google Rank	Notes
	23	Muhajabah's Islamic Blogs	http://www.muhajabah.com/islamicblog/archives/the_clipboard/006462.php	189	blog
	24	Linux Security.com: Central Voice for Linux and Open Source Security News	http://www.linuxsecurity.com/content/view/119624/65/	201	
	25	The Multiracial Activist	http://multiracial.com/content/view/390/27/	203	
	26	Oh, That Liberal Media	http://www.thatliberalmedia.com/archives/002283.html	365	
	27	Greg Parke: Republican for Senate	http://voteparke.com/cgi-data/press/files/16.shtml	367	
	28	The Open Society Paradox: Patriot Act Archives	http://www.opensocietyparadox.com/mt/archives/cat_patriot_act.html	372	
	29	Holt Uncensored	http://www.holtuncensored.com/members/column384.html#fight	379	blog, forum
	30	Trust Makers	http://www.trustmakers.com/privacyandpatriotact.html	425	civil libertarian
215 org	1	Campaign for Reader Privacy	http://www.readerprivacy.org/info.jsp	4	
	2	American Library Association: The USA Patriot Act in the Library	http://www.ala.org/template.cfm/?Section=ifissues&Template=/ContentManagement/ContentDisplay.cfm&ContentID=76289	8	
	3	Friends Committee on National Legislation	http://www.fcnl.org/issues/item.php?item_id=344&issue_id=68	13	Quakers

Table A-1. Continued

Domain	Number	Name	URL	Google Rank	Notes
	4	Free Expression Policy Project	http://www.fepproject.org/commentaries/patriotact.html	14	
	5	National Council of Teachers of English	http://www.ncte.org/about/over/inbox/views/120300.htm	19	
	6	Electronic Privacy Information Center	http://www.epic.org/privacy/terrorism/usapatriot/	23	
	7	American Civil Liberties Union: Reform the Patriot Act | Section 215	http://action.aclu.org/reformthepatriotact/215.html	25	ACLU was also 1st return, but this one's more relevant
	8	Pacific Northwest Booksellers Association: Resolution to Review Section 215	http://www.pnba.org/booknewsreview215res.htm	27	
	9	Patriots to Restore Checks and Balances	http://www.checksbalances.org/	29	liberta-rians?
	10	Manhattan Institute for Policy Research	http://www.manhattan-institute.org/html/mac_donald04-19-05.htm	30	
	11	Nevada Psychologists.org: Patriot Act Analysis	http://www.nevadapsychologists.org/apa_news/patriot.html	121	psycho-logists Nevada

Table A-1. Continued

Domain	Number	Name	URL	Google Rank	Notes
	12	Hightower Lowdown.org: Bush, Ashcroft & Co. vs. Jefferson, Madison & Co.	http://www.hightowerlowdown.org/articles/sep03_v5_n9/sep03_v5_n9_lead03.cfm	128	
	13	Human Rights First: U.S. Law & Security	http://www.humanrightsfirst.org/us_law/privacy/records.htm	150	
	14	Bill of Rights Defense Committee	http://www.demaction.org/dia/organizations/bordc/campaign.jsp?campaign_KEY=852	157	
	15	Pennsylvania School Librarians Association	http://www.psla.org/morenews.php3?detail=n1066617271.news	167	
	16	Defending the U.S. Constitution: Outragedmoderates.org	http://www.outragedmoderates.org/Page3.html	182	
	17	Society of American Archivists: Statement on the Renewal of the USA PATRIOT Act	http://www.archivists.org/statements/patriotact.asp	188	archivists
	18	ASJA Supports Modifications to the USA Patriot Act	http://www.asja.org/media/nr031030.php	193	
	19	Michigan Peaceworkers: Resolution to Protest the Eroding of Civil Liberties Under the USA Patriot Act	http://justpeaceinfo.org/res-aa-cc-7july2003.html	224	peace workers

Table A-1. Continued

Domain	Number	Name	URL	Google Rank	Notes
	20	Critical Art Ensemble Defense Fund	http://www.caedefensefund.org/ACLU_Murray.html	250	
	21	Technology & Democracy Project: Patriot Act Protects Americans	http://www.discovery.org/scripts/viewDB/index.php?command=view&program=Technology%20and%20Democracy%20-%20News&id=2153	274	
	22	Idaho Librarian: Libraries and the Patriot Act	http://www.idaholibraries.org/newidaholibrarian/200208/patriot.htm	286	
	23	Muslim American Society: Facts about the Patriot Act	http://www.masnet.org/takeaction.asp?id=480	319	
	24	Authors Guild: Legislative Alert: Freedom to Read Act	http://www.authorsguild.org/news/04_legislative_alert.htm	321	
	25	The November Coalition: Editorial: Perpetual Hysteria	http://www.november.org/stayinfo/breaking3/Hysteria.html	347	work-ing to end drug war injustice
	26	California Psychological Association: Psychologists and the Patriot Act	http://cpaclasp.org/articles/Psychologists%20and%20the%20Patriot%20Act.html	350	psycho-logists – Californ-ia
	27	Blatant Truth: Civil Liberties in Jeopardy	http://blatanttruth.org/civil_rights.php	360	
	28	the 100 Year March: Peace, Education, Equality and Justice	http://www.100yearmarch.org/letters/patriot_resolution.htm	349	

Table A-1. Continued

Domain	Number	Name	URL	Google Rank	Notes
	29	State Green Party (RI): Reject Patriot Act	http://www.gp.org/press/states/ri_12_19_03.html	408	
	30	Web Junction	http://webjunction.org/forums/thread.jspa?threadID=1692&tstart=0	429	
215 net	1	Societas: Patriot Act Reauthorized? Don't Believe the Hype	http://www.tsujiru.net/?p=198	4	blog
	2	Unknown News: The USA Patriot Act: Treason Masquerade	http://www.unknownnews.net/031107a-be.html	7	
	3	Librarian.net: Essay	http://librarian.net/essays/usapa_clamor.html	11	
	4	Civil Liberties Update	http://personalpages.tellink.net/~debess/CIVIL%20LIBERTIES%20UPDATE.htm	15	person-al page
	5	Capital District Humanist Society: Problems with Provisions of the USA Patriot Act	http://www.humanists.net/cdhs/recap-2004-11-14-Trimble.html	16	
	6	(e)Vent: Community Drawing Project	http://event.green-arrow.net/PatriotAct.php	22	collec-tive art event protest
	7	AttaBoy: Thank God for those Patriotic Librarians	http://attaboy.tommydoc.net/?m=20040128	23	blog

Table A-1. Continued

Domain	Number	Name	URL	Google Rank	Notes
`	8	BlackShade Community: Sow Justice, Harvest Peace	http://www.blackshade.net/index.php?name=Forums&file=viewtopic&p=16	33	
	9	The Political Arena: Patriot Act: Friend or Foe?	http://mysite.verizon.net/vze1tvxm/thepoliticalarena/Patriot%20Act%20Friend%20Or%20Foe.htm	35	blog
	10	FictionAddition.Net: Writers Showcase	http://fictionaddiction.net/showcase/viewwork.php?sid=401	36	
	11	Media Monitors Network: PATRIOT Act's Assault on the Bill of Rights	http://usa.mediamonitors.net/content/view/full/1205	77	
	12	Landover Baptist.net: Forums	http://64.233.161.104/search?q=cache:xyCaeqafNRUJ:www.landoverbaptist.net/forums/lofiversion/index.php/t5327.html++section-215+%22patriot+act+%22+site:.net&hl=en	93	discus-sion forum: conser-vative evange-lical
	13	The Current, Critical Commentary of Jason Burkins: Patriot Over-React	http://jason.burkins.net/overreact.html	117	blog
	14	This Republican.net	http://www.thisrepublic.net/newarticles/We_must_never_let_the_terrorists_win.php	106	conser-vative
	15	Youth for Justice: USA Patriot Act	http://www.leap-kids.net/news/yfjnn0308.php	148	
	16	Mark Earnest: More Patriot Fun	http://markearnest.net/news.cgi?nid=165	126	blog

Table A-1. Continued

Domain	Number	Name	URL	Google Rank	Notes
	17	The Locust Fork: Patriot Act Archives	http://www.locustfork.net/blog/archives/cat_patriot_act.html	152	blog
	18	Utility Fog	http://home.blarg.net/~wayule/blog_cgi/blosxom.cgi/2003/09/18	170	blog
	19	Common Sense Chronicles	http://users.adelphia.net/~dcroley/blog/2004_05_23_archive.html	185	blog
	20	Armageddon Online: The Patriot Act	http://www.armageddononline.net/forums/archive/index.php/t-3483.html	194	
	21	Liberty Coalition	http://www.libertycoalition.net/taxonomy/term/6	201	
	22	The USA PATRIOT ACT	http://usa-patriot-act.iqnaut.net/	205	
	23	Belligerati: We must demand liberty if we are to have it	http://www.belligerati.net/archives/2005/06/we_must_demand.html	222	
215 gov	1	Congressman Devin Nunes	http://www.nunes.house.gov/PatriotAct.htm	3	
	2	Life and Liberty.gov	http://www.lifeandliberty.gov/agpatriotactrevision.htm	5	
	3	U.S. Department of Justice	http://www.usdoj.gov/opa/pr/2005/April/05_opa_163.htm	7	
	4	Ask the White House	http://www.whitehouse.gov/ask/20050720.html	9	
	5	U.S. Senator Russ Feingold: Statement marking second anniversary of the Patriot Act	http://feingold.senate.gov/statements/03/10/2003A22648.html	12	
	6	Federal Bureau of Investigation: Congressional Testimony	http://www.fbi.gov/congress/congress05/caproni052405.htm	16	

Table A-1. Continued

Domain	Number	Name	URL	Google Rank	Notes
	7	State of Michigan: The USA Patriot Act and Library Privacy December 2001	http://www.michigan.gov/hal/0,1607,7-160-17451_18668_18689-54486--,00.html	18	
	8	U.S. Rep. Bernie Sanders	http://bernie.house.gov/patriot_act.asp	20	
	9	U.S. Rep. Jim Dunn	http://hrc.leg.wa.gov/members/dunn/newsreleases/070805.htm	24	
	10	Kentucky Department for Libraries and Archives: Getting your Patriot Act together	http://www.kdla.ky.gov/onlinepubs/publibnewsletter/featurearticles/uspatriot.htm	25	
	11	U.S. Rep. Adam Schiff	http://schiff.house.gov/HoR/CA29/Legislative+Issues/Floor+Statements+-+Text/2005/Floor+Debate+on+Flake+Schiff+Patriot+Act+Library+Amendment.htm	31	
	12	U.S. Sen. Lisa Murkowski	http://murkowski.senate.gov/opinion_080305.html	34	
	13	U.S. Rep. Jo Boner	http://bonner.house.gov/HoR/AL01/News/Columns/2005/Patriot+Act+reauthorization.htm	35	
	14	U.S. Sen. Dianne Feinstein	http://feinstein.senate.gov/05releases/r-additionalviews.htm	43	
	15	U.S. Rep. Tom Udall	http://www.tomudall.house.gov/display2.cfm?id=10287&type=Issues	48	

Domain	Number	Name	URL	Google Rank	Notes
	16	U.S. Embassy, Tokyo, Japan: 'Patriot Act Overreaches,' says Rep. Bernie Sanders	http://japan.usembassy.gov/e/p/tp-20030924a8.html	51	
	17	U.S. Rep. Joe Schwarz	http://schwarz.house.gov/DesktopModules/Articles/ArticlesView.aspx?tabID=0&alias=IRIS&lang=en&ItemID=160&mid=218	55	
	18	U.S. Rep Jon Kyl	http://kyl.senate.gov/record.cfm?id=236223	63	
	19	Oregon State Library: Library Development Services	http://www.oregon.gov/OSL/LD/sixteenth.shtml	66	
	20	U.S. Sen. Larry Craig	http://craig.senate.gov/state040704.htm	74	
	21	U.S. Rep. Jim Moran	http://www.moran.house.gov/statements2.cfm?id=422	77	
	22	U.S. Rep. Anna Eshoo	http://www-eshoo.house.gov/legislative/homeland.aspx	80	
	23	U.S. Sen. Pat Roberts	http://roberts.senate.gov/06-07a-2005.htm	83	
	24	U.S. Rep. Nancy Pelosi	http://democraticleader.house.gov/press/articles.cfm?pressReleaseID=1036	84	
	25	U.S. Sen. Ron Wyden	http://wyden.senate.gov/media/2005/06082005_patriot_act_legislation.html	87	
	26	U.S. Rep. Peter DeFazio	http://defazio.house.gov/030603HSRelease.shtml	101	
	27	U.S. Rep Joe Schwarz: Schwarz discusses Patriot Act	http://schwarz.house.gov/DesktopModules/Articles/ArticlesView.aspx?tabID=0&alias=IRIS&lang=en&ItemID=160&mid=218	93	

Table A-1. Continued

Domain	Number	Name	URL	Google Rank	Notes
	28	U.S. Embassy, Seoul, Korea: Information Resource Center	http://seoul.usembassy.gov/wwwh6073.html	123	
215 gov	1	Library Autonomous Zone: Ideas, issues, and insights on the high seas	http://gort.ucsd.edu/mtdocs/archives/laz/cat_patriot_act.html	5	appears to be a blog
	2	University of Missouri Freedom of Information Center	http://foi.missouri.edu/usapatriotact/questions.html	7	
	3	Vanderbilt University Science and Engineering Library: Libraries and the USA Patriot Act	http://www.library.vanderbilt.edu/science/info/patriot.htm	10	
	4	University of Texas at Arlington: Act/React	http://libraries.uta.edu/actreact/records.asp	11	
	5	Harvard University Belfer Center for Science and International Affairs	http://bcsia.ksg.harvard.edu/publication.cfm?ctype=article&item_id=1292	16	

Table A-1. Continued

Domain	Number	Name	URL	Google Rank	Notes
	6	University of Illinois at Urbana-Champaign Library: Scholarly Communication	http://www.library.uiuc.edu/blog/scholcomm/archives/2005/06/house_votes_to.html	17	
	7	The College of New Jersey Library: The USA PATRIOT Act in the Library	http://www.tcnj.edu/~library/epperson/Patriot.htm	18	
	8	University of California, Santa Cruz: Academic Senate PATRIOT Act Resolution	http://currents.ucsc.edu/03-04/05-24/patriot_act_resolution.html	19	
	9	Librarians Association of the University of California	http://www.ucop.edu/lauc/about/resolution.html	32	
	10	Connecticut Library Association USA Patriot Act Resolution	http://cla.uconn.edu/archive/patriot.html	46	
	11	The Patriot Act: Are you willing to give up civil liberties for security?	http://www.owlnet.rice.edu/~mukil/PatriotAct/	126	person-al Web page
	12	Indiana University Libraries: Schurz Library News	http://ee.iusb.edu/index.php?/libnews/us_patriot_act_petition_drive/	130	

Domain	Number	Name	URL	Google Rank	Notes
	13	Keene State College: IT Security	http://www.keene.edu/it/security/laws.cfm	133	
	14	Stanford University: Blog at the Center for Internet and Society	http://cyberlaw.stanford.edu/blogs/gelman/archives/003198.shtml	151	
	15	The Communitarian Network: Better safe than sorry	http://www.gwu.edu/~ccps/etzioni/B425.html	181	
	16	Lisa's Liturgies Independence Day	http://www.lclark.edu/~frenz/independenceday2004.html	194	
	17	MayerBlog: The Web Log of David N. Mayer	http://users.law.capital.edu/dmayer/Blog/blogIndex.asp?entry=20050425.asp	213	
	18	Harvard University Library: Library Notes	http://hul.harvard.edu/publications/hul_notes_1326/sanders.html	251	
	19	Lindsay's Blog	http://turing.plymouth.edu/~lmhill/blog/	258	blog
	20	Pith, No Longer Windy	http://www.vanderbilt.edu/blogs/barryb/	269	blog
	21	j's scratchpad	http://blogs.law.harvard.edu/jkbaumga/2004/02/28	299	blog
	22	University of Arizona Tucson Faculty Senate Minutes	http://fp.arizona.edu/senate/minutefs/2004-05/mn120604.htm	303	
	23	GrepLaw	http://grep.law.harvard.edu/article.pl?sid=02/06/24/0712251&mode=thread	328	Discus-sion forum

APPENDIX B

INFORMATION ABOUT WEB DEVIL SOFTWARE

Source: Chaotic Software, 2005, Web Devil. Retrieved November 5, 2005, from

    http://www.chaoticsoftware.com/ProductPages/WebDevil.html. Reprinted with

    permission.

Web Devil is a tool for downloading web sites for offline browsing, extracting

web site content, helping to maintain web sites for content authors, and more. It also has

filtering capabilities, so it only downloads what you want, and has a simple to use

interface. Just enter a URL and it downloads the content with a single click. It contains

several powerful tools for downloading and processing web content with ease, including

an URL and e-mail extractor, batch URL downloader, incremental downloader, and

more.

Web Devil requires Mac OS X, version 10.3.0 or later. It is also compatible with

Mac OS X Tiger (10.4).

Downloads and Purchases:

Web Devil 6.0 is available for $34.95. Users of Web Devil 5.5 and prior can

upgrade for a nominal fee of $9.95. Upgrades and full versions can be purchased below,

just click the 'Buy It Now' button!

Web Devil Document -Using Web Devil is simple: Simply create a new Web

Devil window by selecting New from the file menu and then type in the web page you'd

like to get. Once you've typed it in, just click "Start" and that's it. Web Devil will

download the page, scan it for any links, and download them. If you don't want certain

files to be downloaded (e.g. you don't want certain types of images), simply uncheck

one or more of the options within the Options panel.

Incremental Downloader - This tool is handy for downloading sequential URLs

on the same site. For example, if you had URLs on a remote server which were all the

same except for a single number, you can use this tool to get them all in one easy stroke.

Download Options - You can customize the behavior of Web Devil use the

options sheet available for each Web Devil Document. Click the "Download Options"

button in the main window to access it.

APPENDIX C

DERIVED CLASSIFICATION SCHEMA,
TEXT WITH DESCRIPTIVE CODES, USA PATRIOT ACT
DESCRIPTIVE CODES

Derived Classification Schema

Coding procedures for Web-based discourse

about the USA Patriot Act Section 214 and Section 215.

These were the steps followed by the researcher to develop codes and apply them to the discourse.

1.   Look for points of views expressed about the section in question (for the particular study sample).

2.   Seek out key phrases, words or certain types of arguments.

a.   When the words or phrases appeared to hold meaning, code using them.

b.   When the comments appeared to be addressing certain types of arguments, such as remarks, phrased variously, that Section 214 allows the government to spy on citizens, apply a broad umbrella code of "surveillance of citizens."

3.   At end of coding process, review the codes and consolidate some based on similarities.

4.   Use the capabilities of WordStat to tabulate the number of code occurrences and contrast them based on variables established in the study, such as overall point of view concerning the section and act: against, for, or mixed.
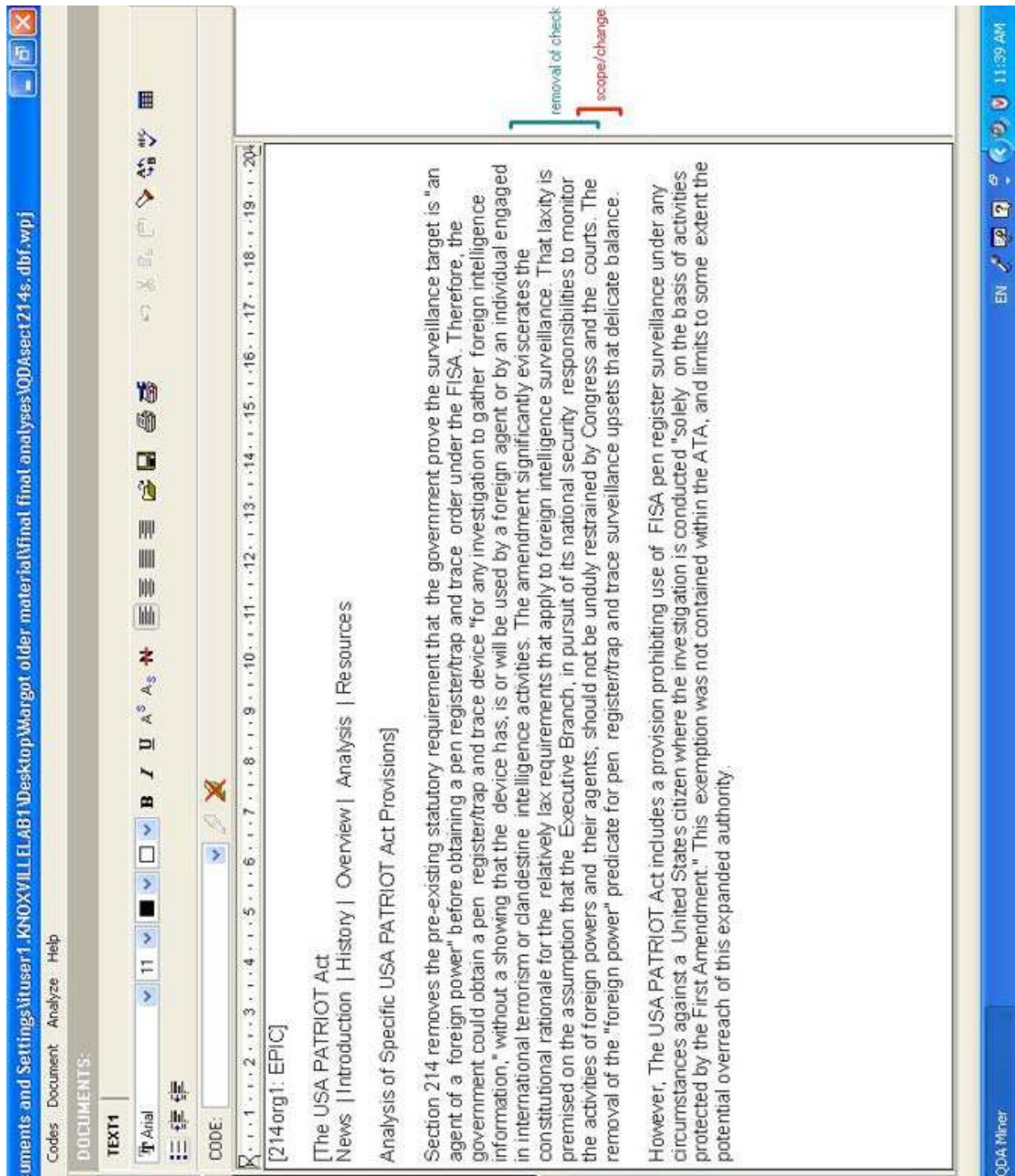
Figure A-1. Coding example of a Section 214 Web page.
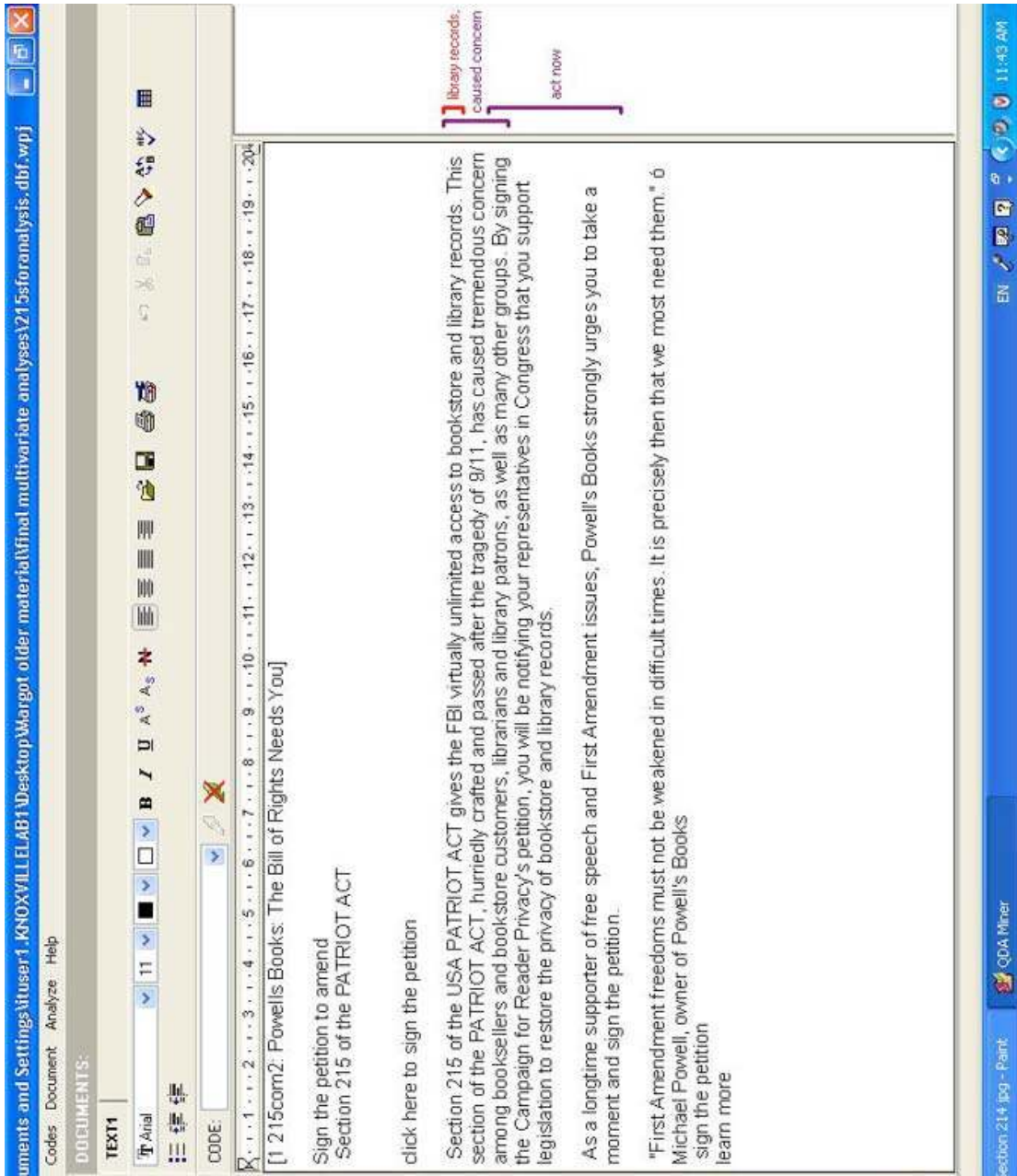
Figure A-2. Coding example of a Section 215 Web page.

Table A-2. Frames derived from the descriptive study applied to the overall USA Patriot Act by Web pages commenting on Section 214.

Code	Additional information	Against, n=30	For, n=11	Mixed, n=21
Harms our democracy	Imperils	36 (18)	0 (0)	5 (5)
Problems in clarity		6 (6)	0 (0)	5 (5)
Removes checks and balances	Or diminishes them	12 (8)	0 (0)	14 (9)
Secrecy		10 (6)	0 (0)	12 (8)
Surveillance		11 (10)	0 (0)	9 (8)
Take action	Contact legislators, sign petition, take back your rights	2 (2)	0 (0)	1 (1)
Unconstitutional		14 (12)	0 (0)	2 (2)
Erodes civil rights		0 (0)	0 (0)	10 (3)
Against USA Patriot Act		0 (0)	0 (0)	3 (1)
Failure of intelligence agencies		0 (0)	0 (0)	3 (3)
Valuable but needs reform		0 (0)	2 (1)	6 (3)
Vital tool in war on terror		0 (0)	11 (7)	0 (0)
Not needed		0 (0)	0 (0)	1 (1)
Protects		0 (0)	8 (5)	0 (0)
Doesn't have problems	Has sufficient oversight	0 (0)	19 (8)	0 (0)

Note. Numerical cell values reflect frame occurrence followed by Web page occurrence. In this way 36 (18) indicates 36 occurrences of the frame across 18 Web pages.

Table A-3. Frames derived from the descriptive study applied to the overall USA Patriot Act by Web pages commenting on Section 215.

Code	Additional information	Against, n=45	For, n=22	Mixed, n=57
Secrecy		27 (17)	0 (0)	19 (17)
Surveillance	Invasion of privacy	24 (18)	0 (0)	6 (6)
Activism in opposition	To the act	13 (10)	0 (0)	15 (10)
Harms civil liberties		12 (10)	0 (0)	7 (7)
Unconstitutional	Infringes on rights	11 (11)	1 (1)	4 (4)
Puts us at risk		8 (7)	0 (0)	3 (3)
Problems in clarity	Uncertainty	7 (7)	0 (0)	7 (5)
Balancing gov. needs v. individual privacy		5 (5)	0 (0)	34 (25)
Important but flawed	Reforms needed, problems exist	5 (5)	0 (0)	26 (21)
Refocus, debate, compromise	Reform, retire, review, change	5 (5)	1 (1)	21 (16)
Removes checks and balances	Removes or diminishes	4 (4)	0 (0)	5 (4)
Harms our democracy	Or threatens, violates it	4 (4)	1 (1)	1 (1)
Seems unnecessary		4 (3)	0 (0)	0 (0)
Deceptive	In purpose and intent	4 (2)	0 (0)	2 (2)
Ineffective intelligence agencies		2 (2)	0 (0)	0 (0)
Abuse of power		1 (1)	0 (0)	1 (1)
Protects		0 (0)	14 (11)	1 (1)
Aids counterterrorism		0 (0)	22 (13)	2 (2)
Threats overstated		0 (0)	8 (5)	0 (0)
Accepted by citizens		0 (0)	3 (1)	0 (0)
Has sufficient oversight	Or balance	0 (0)	10 (9)	1 (1)

Note. Numerical cell values reflect frame occurrence followed by Web page occurrence. In this way 27 (17) indicates 27 occurrences of the frame across 17 Web pages.

APPENDIX D

INFORMATION ABOUT QDA MINER SOFTWARE

QDA Miner is an easy-to-use qualitative data analysis software package for

coding textual data, annotating, retrieving and reviewing coded data and documents. The

program can manage complex projects involving large numbers of documents combined

with numerical and categorical information. QDA Miner also provides a wide range of

exploratory tools to identify patterns in codings and relationships between assigned codes

and other numerical or categorical properties. Documents are stored in Rich-Text Format

and support font and paragraph formatting, graphics and tables. Documents may be

edited at any time without affecting the existing coding.

QDA Miner can import and export documents, data and results in numerous file

formats (MS Word, WordPerfect, RTF, HTML, MS Access, Excel, Paradox, dBase, etc.).

It also provides unique integration with advanced quantitative content analysis, text-

mining (WordStat) and statistical analysis (Simstat) tools, providing easy combination

and integration of qualitative and quantitative methods.

SYSTEM REQUIREMENTS

Microsoft Windows 98 or later

48Mb RAM memory

8Mb disk space

WordStat is a text analysis module specifically designed to study textual

information such as responses to open-ended questions, interviews, titles, journal articles,

public speeches, electronic communications, etc. WordStat may be used for automatic categorization of text using a dictionary approach or various text mining as well as for manual coding. WordStat can apply existing categorization dictionaries to a new text corpus. It also may be used in the development and validation of new categorization dictionaries or taxonomies. When used in conjunction with manual coding, this module can provide assistance for a more systematic application of coding rules, help uncover differences in word usage between subgroups of individuals, assist in the revision of existing coding using KWIC (Keyword-In-Context) tables, and assess the reliability of coding by the computation of inter-raters agreement statistics.

WordStat includes numerous exploratory data analysis and graphical tools that may be used to explore the relationships between the content of documents and information stored in categorical or numeric variables such as the gender or the age of the respondent, year of publication, etc. Relationships among words or categories as well as document similarity may be identified using hierarchical clustering and multidimensional scaling analysis. Correspondence analysis and heatmap plots may be used to explore relationships between key words and different groups of individuals.

Simstat goes beyond mere statistical analysis. It offers output management features not found in any other program as well as its own scripting language to automate statistical analysis and to write small applications, interactive tutorials with multimedia capabilities, as well as computer assisted interviewing systems.

Simstat data file supports not only numerical and categorical data, dates and short alpha-numeric variable but also memos and documents variables allowing one to store in the same project file responses to open-ended questions, interview transcripts, full

reports, etc. Since all Provalis Research tools share the same file format, one can easily

perform statistical analysis on numerical and categorical data using Simstat, perform

qualitative coding on stored documents using QDA Miner or apply the powerful content

analysis and text mining features of WordStat on those same documents. Moreover, the

coexistence of numerical, categorical and textual data in the same data file gives a unique

ability to explore relationships between numerical and textual variables or to compare

qualitative codings or content categories between subgroups of individuals.

APPENDIX E

INFORMATION ABOUT NCSS SOFTWARE

Source: NCSS 2004: Number Cruncher Statistical Software – Data Analysis Statistical

Analysis, Statistical Graphics, Hypothesis Testing. (n.d.). Retrieved November 5,

2005, from http://www.ncss.com/ncsswin.html. Reprinted with permission.

Summary

Since 1981 NCSS has specialized in providing statistical analysis software to the
occassional user of statistics. Our current release, NCSS 2004, is comprehensive, easy to
use, and runs under Windows 95/98/ME/NT/2000/XP.

Procedure Window

Once your data are entered, you select a statistical (or graphical) procedure from
the menus and the corresponding Procedure Window appears. This window lets you
quickly and easily specify the analysis (or graphic) that you want. The immediate help
window on the right gives you a brief explanation of each option as the mouse passes
over it. You can save the settings in a template file for future use.

System Requirements

Runs under Windows 95, 98, ME, 2000, NT 4 , or XP compatible Pentium-class
computers with 32 megs of RAM. Requires 30 megs of hard disk space.

APPENDIX F

INFORMATION ABOUT ISSUE CRAWLER SOFTWARE

Source: Govcom.org. Issuecrawler.net. (n.d.). Retrieved November 5, 2005, from

     http://www.govcom.org/Issuecrawler_instructions.htm. Reprinted with

     permission.

Issuecrawler.net

Instructions of Use

1. Introduction

Welcome to the Issue Crawler, the network mapping software by the Govcom.org Foundation, Amsterdam. This is the online documentation. (Auto-request an account at issuecrawler.net.) Issuecrawler.net also has a FAQ, and a list of features currently not working.

1.1 Before you begin

Download the svg viewer plug-in at http://www.adobe.com/svg. For SVG info, see: http://www.w3.org/Graphics/SVG/SVG-Implementations. SVG is native in latest Firefox/Mozilla browsers.

1.2 Quick start

Enter at least two related URLs in the Issue Crawler, harvest, name your crawl and launch your crawl. Crawls complete in 10 minutes to 8 hours, depending upon quantity of starting points. View map in Network Manager. Clicking node names opens URLs. Save from map options. Print map from saved file, such as pdf. (For printing from pdf, page set up should be landscape, and use 'actual size,' not fit to page.)

1.3 Description of the Issue Crawler

The IssueCrawler is web network location software. It consists of a crawler, a co-link analysis engine and two visualisation modules. It is server-side software that crawls specified sites, captures the outlinks from the specified sites, performs co-link analysis on the outlinks, returns densely interlinked networks, and visualises them in circle and cluster maps. For user tips, see also scenarios of use, available at http://www.govcom.org/scenarios_use.htm. For a list of articles resulting from the use of the Issue Crawler, see http://www.govcom.org/publications.html.

The following is a step by step guide to software use.

2. Log in

Enter Username and Password

Remember me? Checking the box has the software remember your username and password for future use. (A cookie is used.) Your browser also is able to remember your log-in's.

Forgot password? Type username or email address into username field, press login. A new password is sent to your email address, if you are a valid user.

Request account? Fill in as many fields as you feel comfortable with. Note how a user's privacy concerns have been built into the archive search, whilst still enabling an open archive.

3. The Lobby

The Lobby is so named for the area where one waits for crawls to complete. Crawl completion time varies between 10 minutes and 8 hours, depending on the number of servers from which the crawler requests pages. The Crawler also may crash should the

machine on which it is hosted run out of memory. Care is taken to use machines with specifications that result in the fewest crashes.

Whilst waiting users may read news about the software and the results people have generated. (News is posted by the administrators of the software.) Users also may view maps in the archive as well as launch additional crawls.

To the right is the listing of current crawls. Crawls are either crawling or queued (i.e., 'waiting to be launched'). Crawls run sequentially. You may view the author, email address, and settings of the current crawl, as well as a live view of the crawl. You also may view the progress of the current crawl, including an estimated completion time, based on current crawl conditions. Estimated completion time may change significantly should net congestion increase or decrease.

The User Manager is below the listing of current crawls. Users may change their username, password and email address.

4. Issue Crawler

The Issue Crawler is the crawler itself. There are two steps before launching a crawl.

4.1 The Harvester. (Step one)

The Harvester is so named for it strips URLs from text dumped into the space. For example, one may copy and paste a page of search engine returns into the Harvester. The Harvester strips away the text, leaving only URLs. It is a generally useful tool in itself.

Type or paste at least two different URLs into the harvester, and press harvest. These harvested URLs will be crawled.

Tip:

If you find a list of URLs on the Web with only pointer text and without URLs, view page source, copy the code containing the URLs, paste into the Harvester and press Harvest. The Harvester will strip out the code leaving only URLs.

4.2 The Crawler Settings. (Step two)

Your harvested URLs appear in the box. You may edit and remove URLs. You may save your harvested results. This is also the stage where you provide the Crawler with instructions (the crawler settings), and where you name and launch your crawl.

Tips:

Once you have harvested:

Remove double entries by clicking on a URL, and pressing remove.

View starting points to ensure they are correct by clicking on a URL, and pressing view.

Should the URL be incorrect, edit the starting point by clicking the URL and pressing edit. Once edited, press update.

You may save your harvested results by pressing save results. A text file is created.

Should you wish to add URLs, save your results, return to the Harvester, and paste your saved results into the Harvester. Add URLs. Press Harvest.

4.3 Explanation of General Crawler Operation.

The Issue Crawler crawls the specified starting points, captures the starting points' outlinks, and performs co-link analysis to determine which outlinks at least two starting points have in common. The Issue Crawler performs these two steps (crawling and co-link analysis) once, twice or three times. Each performance of these two steps is

called an iteration. Each iteration has the same crawl depth. The crawler respects robot exclusion files. Note: if you desire to see a site's robots exclusion policy, you may wish to consult http://tools.issuecrawler.net/.

Tip:

1. Avoid crawling big media sites, blogs, search engines, pdf files, image files and pages, more generally, without specific outgoing links.

More specific crawler operation information is available in the FAQ by the system administrators.

4.4 Crawler Settings in Detail

There are 4 settings. The default settings suffice to ensure a crawl. You must name your crawl before launching the crawler.

Privilege Starting Points: This setting keeps your starting points in the results after the first iteration. Privileging starting points (and using one iteration of method) are suggested for social network mapping. The software understands a social network as the starting points plus those organizations receiving at least two links from the starting points.

Perform co-link analysis by page or by site. Performing co-link analysis by page analyses deep pages, and returns networks consisting of pages. Performing co-link analysis by site returns networks consisting of sites or homepages only. Analysis by page is suggested, for the results are more specific, and the clickable nodes on the map are often 'deep pages' as opposed to homepages.

Set iterations. One may set the number of iterations of method (crawling and co-link analysis) to one, two or three iterations. One iteration is suggested for social network

mapping, two for issue network mapping and three for establishment network mapping. For a longer description of the distinction between networks, see also scenarios of use, http://www.govcom.org/scenarios_use.htm.

Crawl depth. One may crawl sites one, two or three layers deep.

Here is a strict definition of how depth is calculated.

The pages fetched from the starting point URLs are considered to be

depth 0. The pages fetched from URL links from those pages are considered to be depth 1. In general, the pages found from URL links on a page of depth N are considered to be depth N+1. If you set a depth of 2, then no pages of depth 2 will be fetched. Only pages of depth 0 and 1 will be fetched (ie. two levels of depth). {Text by David Heath at Oneworld.}

Tips:

1. Use links pages as starting points. Links pages are the URLs where hyperlinks are listed, e.g.,

http://www.freeburmacoalition.org/educational_resources/links/fbc_links.htm. Occasionally sites, using frames or other structures, are so designed that visitors may have the impression that they are always on the homepage. If, on the homepage, you notice a hyperlink to 'links' or 'resources', right-mouse click the 'links', copy location to clipboard, and paste into the harvester. Use as many links pages as possible for your starting points.

2. Give the crawler the least amount of work to do. Using a few links pages as starting points, with one iteration of method and one layer deep will provide the quickest crawl completion.

3. Before launching a crawl, name the crawl clearly. Name the crawl so that others viewing the archive will understand what it is. Viewing the archive will provide you with an understanding of crawls that have been named well or less so.

Ceilings (advanced). The crawled URL ceiling (per host) is the maximum quantity of URLs crawled on each host. The crawled URL ceiling (overall) is the total quantity of URLs crawled (max 60000). The co-link ceiling by page (pages per host per iteration) is the maximum quantity of co-linked pages returned per iteration (max 1000). The co-link ceiling by site (hosts per iteration) is the maximum quantity of co-linked sites returned per iteration (max 1000).

Exclusion list. There is a list of URLs to be excluded from crawling and thereby excluded from the results, e.g., software download pages, site stats counters, search engines and others. It is suggested that you keep your own list. You may edit the existing list. Please note the list format, and edit the list using the same format, i.e., www.google.com ; news.google.com.

Name and Launch crawl.

Name crawl before launch. Use a name that clearly identifies the network you seek. Once you have launched a crawl, your crawl details will appear. These include the name of your crawl, and the time and date launched.

5. Network Manager and Archive

5.1 Purpose of the Network Manager and Archive

The principle purpose of the Network Manager as well as the Archive is to allow you to generate, view, edit, save and print maps.

The Network Manager provides a list of your completed crawls. The Archive provides a list of all users' completed crawls. The archive may be searched.

5.2 Features of the Network Manager and Archive

The Network Manager and the Archive have a number of features.

List of completed crawls. Listed are the network names and top five organizations in each network. Each network lists the top 5 URLs beneath the title of the network, with an inlink count in parentheses. The inlink count is the total number of links the organization or site has received from the network. It is a page count. Clicking on an organization (in the form of a shortened URL) places it in the archive search, and allows you to find all maps in the archive containing that organization (according to the homepage URL, without the www, such as greenpeace.org). It seems that worldbank.org currently appears in the most networks in the archive.

Network Selection - The Scheduler. You may schedule the network to repeat the crawl at specified intervals using either your original starting points or the network results. This allows you to watch the evolution of the network over time, either on your terms (scheduling a crawl using your starting points) or on the network's terms (scheduling a crawl using last available network results).

Network Selection – View Map. You may view a depiction of your network as a circle or cluster map.

Network Selection – Edit Map Name and Add Legend Text. You may change the name of the map and add a legend text by pressing the + sign below, editing and pressing save changes. The legend text will appear on the map.

Network Selection – Other Data Views. Available are: the xml source file;

the raw data (comma separated); an actor list with interlinkings (core network) and its equivalent non-matrix version; actor list with interlinkings (core network and periphery) and its equivalent non-matrix version; and the

page list with their interlinkings (core and periphery).

5.3 Map Viewing and Interactivity

Map Viewing

Pressing View Depiction for a cluster map or a circle map generates a map. The map is generated as a scalable vector graphic (svg). The browser may require a plug-in to view an svg file. An svg viewer plug-in is available at http://www.adobe.com/svg.

The map shows its name, author, crawl start and completion dates, as well as the crawler settings. It also loads statistics of the largest node on the map, by default. The largest node is the node that has received the most inlinks from the network actors.

Legend text may be added on the network details page.

The legend shows the top- and second-level domains ("node types") represented on the map.

For the cluster map, the placement of the nodes on the map is significant. Placement is relative to significance of the node to other nodes, according to the ReseauLu approach.

Map Interactivity

Clickable Node Names. Each node name on the map is clickable. Clicking a node name will open a pop-up window and retrieve the URL associated with the node name. Should you have run your crawl with the co-link analysis mode set to 'by page', often the nodes are 'deep pages'.

Clickable Nodes

Selecting a node shows the destination URL, the node's crawl inlink count, as well as its links to and from other network actors, in the statistics.

Clickable Node Types (domains and sub-domains)

You may turn on and off links to and from domains and sub-domains listed in the legend. You also may turn on and off links, using the drop-down menu.

Zooming and Panning. To zoom in, out and return to original view, ctl-mouse. To pan, press alt and drag.

5.4 Saving and Printing Maps

Saving Map.

Use the save and export option on the map.

Save the interactive .svg file for uploading to a site or for file transfer.

In order for the .svg file to load on your site, put a line in the mime-types configuration for your webserver that recognizes svg and outputs the correct content type to the web browser. It is standard with Apache.

Save the .jpg or .png file as flat image for pasting into a document or into html. Save the .tiff flat image for higher print quality. Save the .pdf file as document.

Printing Map.

Print from imported or saved file. Landscape orientation is advised. Printing from the browser also works but is not optimal.

5.5 Advanced Options - Map Generation and Editing

Circle Map - Advanced Options

Map Generation

Retaining the default setting will generate a map with a node count of approximately 25 or fewer nodes. You may raise or lower the node count. A node count reduction is equivalent to an authority threshold. You show nodes with increasingly higher or lower inlink counts.

Map Editing

You may edit the nodes on your map. You may edit the names of the nodes as well as the colors of the nodes, either by typing in the hex numbers for the colors or by using the color picker. The table allows you to sort the nodes on your map by name, domain and page datestamp.

Cluster Map - Advanced Options

Map Generation

The cluster map advanced options provides data about your network.

Choose nodes to be mapped allows you to choose the number of nodes to be mapped according to a significance measure, that is, the 'top' nodes according to inlink count per node.

Selection of ties by specificity is the qualitative strength of ties. The network clusters actors with strongest ties to one another.

Selection of ties by frequency is the quantitative force of ties. The network clusters actors with the greatest quantity of ties between them.

Color scheme by type indicates domain type, e.g., .gov, .co.uk, .gv.at. Color scheme by structural position indicates type of linking behavior, e.g., only gives links, only receives links, give and receives links.

Size of nodes by inlinks indicates that the size of the node is relative to the number of links received by the site or organization during the crawl.

Size of nodes by centrality indicates the size of the node is relative to number of of links given and received per cluster.

Map Editing

The advanced options for the cluster map allow you to change the colors as well as the names of the nodes.

APPENDIX G

QUANTITATIVE ANALYSIS OF SECTION 214 AND 215 SAMPLES

Quantitative analysis of the Section 214 sample

In the first step of the analysis, NCSS was used to select a sample size of key words contained within the Section 214 sample. The selection was conducted through a cluster analysis using K-means on the 6,092 unique words present in the sample. An analysis of the words' frequency of usage and percentage of occurrence in all Web pages in the sample served as variables for the process. The analysis identified three clusters within the data. The set of 79 words contained within Cluster Three was chosen for subsequent analysis because they were higher usage words. Comparison of means of the three clusters is show in Table A-4.

Next, a principal components analysis (PCA) was conducted on the raw frequencies of the 79 key words in Cluster 3 across the 62 Web pages in the sample. The PCA was conducted using the correlation matrix and no rotation. Results are reported in Table A-5. Using the method of eigenvalue cutoff based on the value of 1.0, 11 principal components were selected for the analysis.

The factor loadings were inspected to determine which words had high correlation in each component. Interpretation of the principal components results individually is difficult with so many words. More insight on value content of specific words will be gained in the study's fuzzy clustering analysis.

In preparation for fuzzy cluster analysis, the eigenvalues calculated in the PCA were used to transform the principal components. The transformation consisted of multiplying the values of each principal component with the square root of its eigenvalue.

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Table A-4. Results of K-means clustering analysis on the 6,092 words in the Section 214 sample.

Variables	Cluster Means		
	Cluster1	**Cluster2**	**Cluster3**
C2	32.95911	3.220457	160.3797
C3	0.2253141	3.303178E-02	0.5436709
Count	538	5475	79

Table A-5. Results of principal components analysis.

Eigenvalues No.	Eigenvalue	Individual Percent	Cumulative Percent	Scree Plot
1	37.265912	47.17	47.17	|||||||||||
2	11.984917	15.17	62.34	||||
3	5.686528	7.20	69.54	||
4	4.000287	5.06	74.60	||
5	3.317850	4.20	78.80	|
6	2.450982	3.10	81.91	|
7	2.160154	2.73	84.64	|
8	1.714097	2.17	86.81	|
9	1.301032	1.65	88.46	|
10	1.211661	1.53	89.99	|
11	1.104379	1.40	91.39	|

Fuzzy clustering analysis was conducted to determine the optimal number of clusters within the data. The analysis was conducted using a 1.5 fuzzifier constant. A two-cluster solution for the data was judged best, based on highest average silhouette value, highest Dunn's partition, $Fc(U)$, and lowest Kaufman's index, $Dc(U)$. Table A-6 shows the value of the indices for solutions that range from two to seven clusters.

Next a sensitivity analysis was conducted to determine the optimal degree of fuzziness that should be accepted for the data. As reported in Table A-7, fuzzy cluster analysis was conducted using fuzzifier constants that ranged from 1.05 through 2.0. Results using a fuzzifier constant of 1.2 were accepted as best based on high average silhouette value, high Dunn's partition and low Kaufman's index values.

The fuzzy clustering using at 1.2 fuzzification resulted in a much larger set of Web sites associated with Cluster One. Forty-three sites showed strong association in the cluster reflected by membership values of .98 and higher. A smaller number of sites were associated with Cluster Two, with 12 Web sites holding membership values of .62 and higher. The range of Web sites and also degree of prominence of the sites to the cluster were both lower for Cluster Two. These differences indicate that Cluster One has low usage of key words and Cluster Two has heavy usage on key words. Table A-8 and Table A-9 report the most dominant Web sites associated with each cluster.

A three-dimensional scatter plot was used to probe differences in how the 79 key words selected for the analysis were used among the 62 Web sites that comprise the Section 214 sample. The first three principal components served as variables for this step in the analysis.

Table A-6. Results of fuzzy cluster analysis using a 1.5 fuzzifier constant.

Number Clusters	Average Distance	Average Silhouette	F(U)	Fc(U)	D(U)	Dc(U)
2	53.759448	0.557249	0.8031	0.6062	0.0731	0.1463
3	43.607673	0.284456	0.6010	0.4016	0.1913	0.2870
4	37.673305	0.182273	0.4970	0.3293	0.2677	0.3570
5	33.603056	0.089086	0.4080	0.2600	0.3660	0.4575
6	30.021979	0.069673	0.3813	0.2575	0.4075	0.4890
7	28.070904	0.069161	0.3361	0.2255	0.4534	0.5289

Table A-7. Fuzzy cluster analysis conducted at different levels of fuzzification.

Fuzzifier Constant	Average Silhouette	Fc(U)	Dc(U)
1.0	--	--	--
1.05	0.574	0.992	0.000
1.1	0.604	0.965	0.005
1.15	0.604	0.923	0.023
1.2	0.604	0.882	0.041
1.25	0.604	0.841	0.058
1.3	0.574	0.799	0.072
1.4	0.574	0.708	0.105
1.5	0.557	0.606	0.146
1.6	0.524	0.498	0.200
1.7	0.524	0.393	0.256
1.75	0.506	0.344	0.290
1.8	0.506	0.299	0.325
1.9	0.484	0.220	0.400
2.0	0.484	0.152	0.480

Table A-8. Web sites determined by fuzzy cluster analysis to be most dominant in Cluster One.

Web Site	Row	Sum of Squared Membership
American Library Association newsletter	41	1.0000
Jury Fury blog	10	1.0000
Engatiki blog	43	1.0000
U.S. Rep. Jan Schakowsky	59	1.0000
Mick's Place Forums	53	1.0000
Vanderbilt University Library	60	1.0000
University System of Georgia	61	1.0000
Tompkins County Public Library	26	1.0000
Strike the Root blog	7	1.0000
Foto Amigos blog	8	1.0000
Wealth International, Limited	17	1.0000
Political Forum	51	1.0000
Bill of Rights Defense Committee	28	1.0000
PEN American Center	25	1.0000
U.S. Representative Devin Nunes	58	1.0000
Yellowworld Forums	37	1.0000
Winning Argument blog	3	1.0000
U.S. Sen. Patrick Leahy	57	0.9999
Talk Left forum	6	0.9999
Center for Democracy and Technology	23	0.9999
American Muslim Voice	29	0.9999
Patriot Act and Boaters forum	52	0.9999
Michigan Independent Media Center	35	0.9999
Electronic Privacy Information Center	20	0.9999
Common Dreams News and Views	31	0.9998
The Communitarian Network	62	0.9998
Old Right Pundits	9	0.9998
American Civil Liberties Union	22	0.9997
All American Patriots	14	0.9997
People for the American Way	27	0.9997
Anti-Collective blog	19	0.9993
U.S. Sen. Dianne Feinstein	55	0.9993
Hanover Public Library	36	0.9992
Bill of Rights.net	48	0.9989
Ratville times blog	39	0.9983
Institute for Global Engagement	42	0.9970
D'Anconia Online blog	11	0.9962
American Muslim Perspective	44	0.9937

Table A-8. Continued.

Web Site	Row	Sum of Squared Membership
Electronic Frontier Foundation	21	0.9910
SpamCop forum	47	0.9898
Sonoran Sunsets	16	0.9877
Bill Roggio blog	2	0.9843

Table A-9. Web sites determined by fuzzy cluster analysis to be most dominant in Cluster Two.

Word	Row	Sum of Squared Membership
Motorcycle Forum	50	0.9382
Association Admiration Aggregation blog	46	0.9324
New York City Bill of Rights Defense Campaign	32	0.9306
Jay's Net blog	12	0.9097
Debate Politics forum	15	0.9087
MagicBox forum	18	0.9069
Manhattan Institute for Policy Research	24	0.9033
Toledo Talk forum	13	0.8717
Santa Barbara Bill of Rights Defense Committee	33	0.8661
Third World Traveler	1	0.8383
Virtue Magazine	34	0.7670
Federal Bureau of Investigation	56	0.6215

The scatter plot, provided in Figure A-3, revealed that most of the 62 Web sites were similar in how they used the 79 key words in discussion of Section 214 of the USA Patriot Act, as evidenced by a tight pattern of clustering. A smaller number of sites plotted farther away from the core. Only five sites were strong outliers and these were all members of Cluster Two, as were the sites that were more dispersed, which plotted somewhat away from the central core. Table A-10 reports plotting values, cluster identification, and scatter plot location for a subsample of the Web sites.

Web sites in the core concentration include a newsletter article providing background on the USA Patriot Act posted online by the American Library Association, a position statement by the PEN American Center, an article by an investment firm, and discussion in two online forums.

Content from online forums also appeared among Web sites more dispersed from the core on the scatter plot and among the outlier Web sites. Articles and congressional testimony were also among the content at dispersed and outlier Web sites.

While no clear forms of content appear to be tied to clustering location (core, dispersed, outlier) based on analysis of word usage, inspection of the outlier sites finds content at them to be far more lengthy in nature than that of Web sites that plotted at the core. How these sites discussed Section 214—their frequency of word usage—led them to be classified as outliers.

Next a discriminant analysis was conducted to identify the most statistically significant words in differentiating between the two clusters. The method used a linear discriminant function with stepwise variable selection using a .20 probability enter and .15 probability remove. The sixteen words retained appear in Table A-11. Many of the

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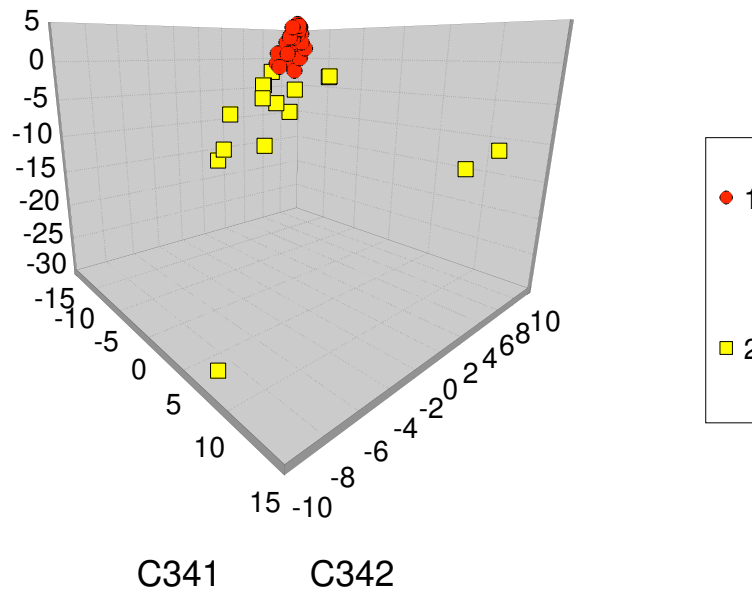
Scatter Plot

Figure A-3. Scatter plot of Web sites by cluster based on word usage.

Table A-10. A subset of Web sites plotted by principal component values.

Web Site, ID, Form of Content	PC1	PC2	PC3	Cluster	Location
American Library Association, 41, newsletter article	4.0289	0.3471	-0.1451	1	Core
Political Forum, 51, online forum	4.2555	1.0319	-0.3880	1	Core
Talk Left, 6, online forum	4.1988	0.7247	-0.1787	1	Core
Wealth International, Ltd., 17, article	4.2139	1.0057	-0.2637	1	Core
PEN American Center, 25, position statement	4.0554	-0.0104	-0.0043	1	Core
Motorcycle Forum, 50, online forum	-7.5733	-5.3248	3.0628	2	Dispersed
Manhattan Institute for Policy Research, 24, testimony	-5.5384	-2.8039	0.3505	2	Dispersed
Third World Traveler, 1, article	-4.6022	-2.2662	-1.0358	2	Dispersed
Federal Bureau of Investigation, 56, Congressional testimony	-3.0361	-2.5089	-0.8573	2	Dispersed
Virtue Magazine, 34, article	-3.9201	-3.3600	2.2694	2	Dispersed
Debate Politics, 15, online forum	-28.089	7.9384	-9.2666	2	Outlier
Toledo Talk, 13, online forum	-11.528	11.192	9.7777	2	Outlier
MagicBox Forum, 18, online forum	-13.504	10.167	7.2965	2	Outlier
New York City Bill of Rights Defense Committee, 32, position statement	-14.072	-10.480	3.8116	2	Outlier
Association Admiration Aggregation, 46, blog	-16.616	-13.906	1.1279	2	Outlier

Note. PC1, PC2, and PC3 indicate Principal Components One, Two, and Three

Table A-11. Linear discriminant functions of 16 key words.

Variable	Cluster One	Cluster Two
Constant	-0.7952088	-115.607
ACTIV(-ity, -ities)	0.1799192	**5.288706**
AGENT	-0.3273517	**-5.685617**
COMMUN(-ity, -ication)	-9.848496E-02	**-2.103747**
COUNTRI(country, -y's, -es)	0.1983582	**4.737189**
DEPART(-ment, -ments)	0.1840998	**3.507197**
DOE	0.3656881	**4.623786**
FBI	0.2014547	**2.389516**
HOUS(-e)	-0.2610947	**-4.373527**
LAW	-8.044951E-02	**-2.146882**
PASS	0.5587942	**8.096015**
POWER(-s)	-0.223925	**-3.15658**
PRIVACI (privacy)	1.015961	**17.28684**
READ	-0.3861262	**-8.653087**
SEARCH(-es)	0.2857148	**4.705173**
SURVEIL(-lance)	0.178135	**1.685545**
TERROR	0.3247364	**4.117959**

Note. Bold type indicates the cluster of association for each key word.

words were shortened to their canonical forms in WordStat through a process called

lemmatization. To aid in interpretation, the lemmatized words were inspected using

WordStat's keyword-in-context option and their endings are provided in parentheses

following the shortened word forms.

Classification based on resubstitution estimates using the 16 words resulted in a

zero error rate, with none of the 62 Web sites within the Section 214 sample misclassified

in either cluster. Classification based on more rigorous cross-validation estimates resulted

in four misclassified cases from Cluster One but none misclassified for Cluster Two.

Table A-12 reports the results.

The 16 words have a 94% success rate in discriminating between the two clusters.

While the data does not have equal variance-covariance matrices, the difference is so

strong based on the training sample, all the words are accepted as very significant.

Next cluster profiles were developed. Descriptive statistics were used to obtain

the means of significant key words identified through discriminant analysis as most

significant in discriminating between the two clusters. Inspection of means allows for the

contribution of each key word to the cluster profile to be explored. The value of the

means shows large positive or negative departures from the sample mean on key

discriminating values.

Table A-13 shows the word profiles for Clusters One and Two. The means of the

discriminating words are very low for Cluster One and high for Cluster Two, indicating

far more intensity in language at the Web sites classified into Cluster Two. While "Law"

was the most intense word in usage in each cluster, its usage in Web sites classified into

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Table A-12. Cross-validation estimate classification for Section 214 clusters.

Number of Observations and Percent Classified into Cluster

From Cluster	1	2	Total
1	46	4	50
	92.00	8.00	100.00
2	0	12	12
	0.00	100.00	100.00
Total	46	16	62
	74.19	25.81	100.00
Priors	0.5	0.5	

Table A-13. Word profiles for Clusters One and Two.

Word	Cluster 1	Cluster 2
ACTIV(-ity, -ities)	0.9	7.5
AGENT	1.0	4.5
COMMUN(-ity, -ication)	1.8	7.9
COUNTRI(country, -y's, -es)	0.5	8.3
DEPART(-ment, -ments)	0.5	8.0
DOE	0.9	5.7
FBI	1.3	8.8
HOUS(-e)	0.8	4.7
LAW	3.3	17.3
PASS	0.6	3.9
POWER(-s)	2.3	16.1
PRIVACI(privacy)	0.5	5.3
READ	0.8	6.3
SEARCH(-es)	2.0	16.3
SURVEIL(-lance)	2.2	10.7
TERROR	2.0	15.7

Cluster Two was more than five times as intense. Use of the words "Search" or "Searches" was eight times more intense in Cluster Two than Cluster One.

To analyze these differences in context, the Web sites were sorted by cluster using the membership value assigned during the fuzzy cluster analysis. Table A-14 and Table A-15 report cluster membership. Cluster One, the cluster of comparatively low intensity of discussion, contained a far larger number of Web sites, a total of 50 in number. In contrast Cluster Two, the cluster of high intensity of discussion, contained only 12 Web sites. The analysis focused on key differences in language use that drove membership in Cluster Two, differentiating the sites from those of Cluster One.

In comparing the two clusters, Web pages classified into Cluster Two generally represent individuals speaking out in blogs or forums, along with organizations providing lengthy discussion: Congressional testimony at the Web site of the Federal Bureau of Investigation and political comments at two Bill of Rights Defense Organization Web sites. Absent from this cluster are larger organizations and institutions, such as the American Library Association (ALA), the American Civil Liberties Union (ACLU), libraries, and universities. Publicly funded libraries and universities may be necessarily constrained in activism against federal legislation as organizations, and therefore it is not unexpected that content about the USA Patriot Act was limited at the Web sites of the universities and libraries that were selected to be part of this study's sample, although activism was evident at faculty senate Web pages. Reasons are less clear why the ACLU and ALA, as well as allied organizations such as the Electronic Frontier Foundation, have limited content about the USA Patriot Act at their Web sites, leading to classification in Cluster One.

Table A-14. Web sites comprising Cluster One.

Name of site	Domain	Page type	Viewpoint	Depth
Bill Roggio: The Fourth Rail	.com	blog	for	3
Winning Argument	.com	blog	against	3
Laugh at Liberals	.com	blog	against	3
Patriot Debates	.com	professional	for	3
Talk Left	.com	online forum	against	2
Strike the Root	.com	blog	against	2
Foto Amigos	.com	blog	against	2
Old Right Pundits	.com	blog	mixed	2
Jury Fury	.com	blog	against	1
d'Anconia Online	.com	blog	against	3
All American Patriots	.com	online entity	for	2
Sonoran Sunsets	.com	online entity	against	2
Wealth International, Ltd.	.com	online entity	against	2
Anti-Collective	.com	blog	for	1
EPIC	.org	political	mixed	3
Electronic Frontier Foundation	.org	political	against	2
ACLU: Reform the Patriot Act	.org	political	mixed	2
CDT: Patriot Act Overview	.org	political	mixed	1
PEN American Center	.org	professional	mixed	1
Tompkins County Public Library	.org	institutional	mixed	2
People for the American Way	.org	political	mixed	2
Bill of Rights Defense Committee	.org	political	against	2

Table A-14. Continued.

Name of site	Domain	Page type	Viewpoint	Depth
American Muslim Voice	.org	race/religious	against	2
Populist Party of America	.org	political	against	2
Common Dreams	.org	political	against	2
Michigan Independent Media Center	.org	political	against	1
Hanover Public Library	.org	institutional	mixed	1
Yellowworld Forums	.org	race/religious	mixed	2
Truthout	.org	political	against	2
Ratville Times	.org	blog	against	3
Marblehead Bill of Rights Defense Committee	.org	political	against	1
American Library Association	.org	professional	mixed	2
Institute for Global Engagement	.org	political	for	3
Engatiki	.org	blog	against	2
American Muslim Perspective	.net	race/religious	mixed	3
Spinning Globe	.net	blog	against	2
SpamCop	.net	online forum	against	3
Bill of Rights.net	.net	political	against	2
Armageddon Online	.net	online forum	mixed	2
Political Forum	.net	online forum	against	1
Patriot Act and Boaters	.net	online forum	mixed	1
Mick's Place Forums	.net	online forum	against	2

Table A-14. Continued.

Name of site	Domain	Page type	Viewpoint	Depth
Preserving Life & Liberty: Department of Justice	.gov	institutional	for	2
U.S. Sen.Dianne Feinstein	.gov	political	for	3
U.S. Sen.Patrick Leahy	.gov	political	mixed	2
U.S. Rep. Devin Nunes	.gov	political	for	3
U.S. Rep. Jan Schakowsky	.gov	political	mixed	2
Vanderbilt University Science and Engineering Library	.edu	institutional	mixed	2
Homeland Security Inform-ation: Creating a More Educated Georgia	.edu	institutional	mixed	3
The Communitarian Network	.edu	institutional	mixed	3

Note. In the column titled depth, coding signifies the following: 1 indicates text that represents only one point of view; 2 indicates an acknowledgment of other points of view in addition to the one being advocated; 3 indicates more detailed discussion of other points of view, including hypertext linking activity.

Table A-15. Web sites comprising Cluster Two.

Name of site	Domain	Page type	Viewpoint	Depth
Third World Traveler	.com	online entity	mixed	3
Jay's Net	.com	blog	against	3
Toledo Talk	.com	online forum	against	1
Debate Politics	.com	online forum	against	1
MagicBox Forum	.com	online forum	for	2
Manhattan Institute for Policy Research	.org	political	for	3
New York City Bill of Rights Defense Committee	.org	political	mixed	3
Santa Barbara Bill of Rights Defense Committee	.org	political (remarks by exec director)	mixed	3
Virtue Magazine-"The Unpatriotic Patriot Act"	.org	political (written comments)	against	3
Association Admiration Aggregation	.net	blog	mixed	3
Motorcycle Forum	.net	online forum	against	3
Federal Bureau of Investigation (Congressional testimony)	.gov	institutional	For	3

Note. In the column titled depth, coding signifies the following: 1 indicates text that represents only one point of view; 2 indicates an acknowledgment of other points of view in addition to the one being advocated; 3 indicates more detailed discussion of other points of view, including hypertext linking activity.

Cross tabulation was used to probe for potential patterns based on cluster membership. Table A-16 analyzes Web sites in Cluster One by point of view on Section 214 and domain. While cell counts are too low to support Chi-square tests, it is clear that the majority of viewpoints on Section 214 are negative (48%) and mixed (38%) contrasted to only 14% in favor of the act. The Internet domains of .org (42%), .com (28%), and .net (16%) are the most prevalent.

Given the low cell counts of Table A-16, a non-parametric test based on a hypergeometric distribution was used to determine whether differences of viewpoint are significant when the .com domain is compared to the other four domains. Fisher's Exact Test was performed. For purposes of obtaining the two-by-two table needed for the test, viewpoints for and mixed were collapsed together and tested against viewpoints against the section. The collapsed counts are reported in Table A-17. The difference was found to be statistically non-significant, returning a p-value of 0.210876. This indicated no statistically significant differences in frequency of opinion about Section 214 between the domains for Cluster One.

Table A-18 analyses Web sites in Cluster One by viewpoint on Section 214 and the form of Web page where the content was sampled. Political Web sites (34%) are most prevalent, followed by blogs (24%), with negative views on the act (48%), and mixed (36%) more dominant than those in favor of it (16%).

Cluster Two is analyzed by domain and viewpoint in Table A-19. As with Cluster One, cell counts are too low to support Chi-square tests. In contrast to the Web sites in Cluster One, domain counts are more evenly distributed as are viewpoints concerning the act.

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Table A-16. Cluster One domain by viewpoint on Section 214.

Domain	Viewpoint			Sum
	For	**Against**	**Mixed**	
.org	1	10	10	21 (42.0%)
.net	0	5	3	8 (16.0%)
.com	4	9	1	14 (28.0%)
.gov	2	0	2	4 (8.00%)
.edu	0	0	3	3 (6.00%)
Sum	7 (14.0%)	24 (48.0%)	19 (38.0%)	n=50

Table A-17. Collapsed categories used for Fisher's exact test.

Domain	For/Mixed	Against	Total
.com	5	9	14
.others	21	15	36
Total	26	24	50

Table A-18. Cluster One page type by viewpoint on Section 214.

Page Type	Viewpoint			*n*
	For	**Against**	**Mixed**	
Political	3	8	6	17 (34.0%)
Institutional	1	0	4	6 (12.0%)
Blog	2	9	1	12 (24.0%)
Religious/Race	0	1	2	3 (6.00%)
Online Forum	0	4	2	6 (12.0%)
Online Entity	1	2	0	3 (6.00%)
Professional	1	0	2	3 (6.00%)
n	8 (16.0%)	24 (48.0%)	18 (36.0%)	n=50

Table A-19. Cluster Two domain by viewpoint on Section 214.

Domain	Viewpoint			*n*
	For	Against	Mixed	
.org	1	1	2	4 (33.3%)
.net	0	1	1	2 (16.7%)
.com	1	3	1	5 (41.7%)
.gov	1	0	0	1 (8.33%)
.edu	0	0	0	0 (0.00%)
n	3 (25.0%)	5 (41.7%)	4 (33.3%)	n=12

Fisher's exact test is performed to determine whether differences in counts between the .com domain and those of the other domains are significant. For the two-by-two test, counts for .com domain are contrasted against all other domains combined, and viewpoints of for and mixed are contrasted against those against Section 214. Table A-20 reports the collapsed counts used for the test. The test returns a p-value of 0.558081 thus the difference in frequency of discourse and opinion between the .com domains and those of other domains is accepted as statistically non-significant.

Table A-21 examines Cluster Two Web sites by viewpoint on Section 214 and the form of Web page where the content was sampled. A more even distribution of page types is evident; however, the spread of opinion echoes that of the Web sites in Cluster One, with against (50%) and mixed (33%) more dominant than for (17%).

A final step of the analysis was to determine whether viewpoint and domain was statistically significant between the two clusters using Fisher's Exact Test. Table A-22 reports the cell counts used for the test. The results returned an alpha of 1.000000, indicating the differences were not statistically significant.

Table A-20. Collapsed counts used for Fisher's exact test.

Domain	For/Mixed	Against	n
.com	2	3	5
.others	5	2	7
n	7	5	12

Table A-21. Cluster Two page type by viewpoint on Section 214.

Page Type	Viewpoint			*n*
	For	**Against**	**Mixed**	
Political	0	2	2	4 (33.3%)
Institutional	1	0	0	1 (8.33%)
Blog	0	1	1	2 (16.7%)
Religious/Race	0	0	0	0 (0.00%)
Online Forum	1	3	0	4 (33.3%)
Online Entity	0	0	1	1 (8.33%)
Professional	0	0	0	0 (0.00%)
n	2 (16.7%)	6 (50.0%)	4 (33.3%)	*n*=12

Table A-22. Aggregate counts used to test differences between Clusters One and Two.

Domain	For/Mixed	Against	*n*
.com	3	6	9
.others	16	13	29
n	19	19	38

Quantitative analysis of the Section 215 sample

The initial step of the analysis consisted of using the NCSS statistical software package to select a sample of key words contained within the Section 215 sample. The selection was conducted using cluster analysis using K-means on the 4,493 unique words present in the discourse of extracted text from Web pages in the Section 215 sample. The two variables that served as input for this process were a count of the words' raw frequency of usage in the sample of 124 Web pages and a percentage value of each word's occurrence in all Web pages of the sample. The analysis identified three clusters within the data. The set of 32 words contained in Cluster Three was chosen for subsequent analysis because they were high usage words. Comparison of means of the three clusters is shown in Table A-23.

Next, a principal components analysis (PCA) was conducted on the raw frequencies of the 32 key words in Cluster 3 across the 124 Web pages in the sample. The PCA was conducted using the correlation matrix and no rotation. Using the method of eigenvalue cutoff based on the value of 1.0, eight principal components were selected for the analysis. Results of the PCA are reported in Table A-24.

The factor loadings were inspected to determine which words had high correlation in each component. Interpretation of the principal components results individually is difficult with a large sample of words. More insight on value content of specific words will be gained in the study's fuzzy clustering analysis.

Table A-23. Results of K-means clustering analysis on the 4,493 words in the Section 215 sample.

Cluster Means Variables	Cluster1	Cluster2	Cluster3
C2	47.07317	3.398814	210.0938
C3	0.2249228	2.207782E-02	0.5801563
Count	246	4215	32

Table A-24. Results of principal components analysis.

Eigenvalues		Individual	Cumulative	
No.	Eigenvalue	Percent	Percent	Scree Plot
1	11.326258	35.39	35.39	|||||||||
2	2.999260	9.37	44.77	||
3	2.278606	7.12	51.89	||
4	1.843231	5.76	57.65	||
5	1.510259	4.72	62.37		
6	1.285027	4.02	66.38		
7	1.257321	3.93	70.31		
8	1.050504	3.28	73.60		

In preparation for fuzzy cluster analysis, the eigenvalues calculated in the PCA were used to transform the principal components. The transformation consisted of multiplying the values of each principal component with the square root of its eigenvalue.

Fuzzy clustering analysis was first conducted to determine the optimal number of clusters within the data. The analysis was conducted using a 1.5 fuzzifier constant. A two-cluster solution for the data was judged best, based on highest average silhouette value, highest Dunn's partition, Fc(U), and lowest Kaufman's index, Dc(U). Table A-25 shows the value of the indices for cluster solutions that range from two to seven clusters.

Next a sensitivity analysis was conducted to determine the optimal degree of fuzziness that should be accepted for the data. Fuzzy cluster analysis was conducted using fuzzifier constants that ranged from 1.05 through 2.0, as reported in Table A-26. Results using a fuzzifier constant of 1.6 were accepted as best for the data based on high average silhouette value, high Dunn's partition and low Kaufman's index values.

The fuzzy clustering analysis at 1.6 fuzzification resulted in a far larger set of Web sites associated with Cluster Two than with Cluster One. Thirteen Web sites showed dominance in Cluster One with membership values of .76 and higher. In contrast, 33 sites held membership values of .93 or higher in association with Cluster Two. The range of Web sites and degree of prominence of the sites to the cluster were both higher for Cluster Two. These differences indicate that Cluster Two had low usage of key words and Cluster One had heavy usage on key words. Table A-27 and Table A-28 report the most dominant Web sites associated with each cluster.

A three-dimensional scatter plot was used to probe differences in how the 32 key words selected for the analysis were used among the 124 Web sites that comprise the

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Table A-25. Results of fuzzy cluster analysis using a 1.5 fuzzifier constant.

Number Clusters	Average Distance	Average Silhouette	F(U)	Fc(U)	D(U)	Dc(U)
2	163.560586	0.582153	0.8430	0.6860	0.0518	0.1035
3	122.996864	0.420836	0.7420	0.6130	0.0810	0.1214
4	102.311674	0.386381	0.6812	0.5750	0.1135	0.1513
5	88.384246	0.343668	0.6260	0.5325	0.1265	0.1582
6	79.998058	0.285815	0.5460	0.4552	0.1846	0.2215
7	73.060770	0.247697	0.4994	0.4159	0.2124	0.2478

Table A-26. Fuzzy cluster analysis conducted at different levels of fuzzification.

Fuzzifier Constant	Average Silhouette	Fc(U)	Dc(U)
1.05	0.612408	0.9848	0.0029
1.1	0.612408	0.9638	0.0164
1.15	0.612408	0.9482	0.0227
1.2	0.612408	0.9267	0.0273
1.25	0.612408	0.8988	0.0334
1.3	0.612408	0.8649	0.0423
1.4	0.605121	0.7815	0.0668
1.5	0.582153	0.6860	0.1035
1.6	0.566571	0.5899	0.1435
1.7	0.543054	0.5003	0.1880
1.75	0.528638	0.4590	0.2081
1.8	0.528638	0.4203	0.2287
1.9	0.514066	0.3511	0.2701
2.0	0.486962	0.2922	0.3106

Table A-27. Web sites determined by fuzzy cluster analysis to be most dominant in Cluster One.

Web Site	Row	Sum of Squared Membership
Harvard University Belfer Center	107	0.8700
Federal Bureau of Investigation	82	0.8565
Unknown News	57	0.8459
Third World Traveler	10	0.8361
Free Expression Policy Project	29	0.8051
The Open Society Paradox	24	0.8043
FindLaw's Legal Commentary	2	0.8014
The Political Arena	62	0.7903
American Civil Liberties Union	32	0.7886
Technology & Democracy Project	46	0.7844
Trust Makers	26	0.7832
Blatant Truth	52	0.7688
Friends Committee on National Legislation	28	0.7614

Table A-28. Web sites determined by fuzzy cluster analysis to be most dominant in Cluster Two.

Web Site	Row	Sum of Squared Membership
University of Arizona Tucson Faculty Senate	123	0.9607
California Psychological Association	51	0.9600
Common Sense Chronicles blog	72	0.9583
Patriots to Restore Checks and Balances	34	0.9537
U.S. Rep. Jo Bonner	89	0.9535
University of Missouri Freedom of Information Center	103	0.9533
Muhajabah's Islamic Blogs	21	0.9528
Lisa's Liturgies Independence Day	118	0.9520
Mark Earnest blog	69	0.9518
American Society of Journalists and Authors	43	0.9503
Linux Security.com	22	0.9502
Capital District Humanist Society	60	0.9486
Oh, That Liberal Media blog	23	0.9485
Counterpunch	19	0.9485
Societas blog	56	0.9476
Pennsylvania School Librarians Association	40	0.9475
U.S. Sen. Pat Roberts	99	0.9462
Alibris	14	0.9452
Hightower Lowdown.org	37	0.9450
Bear Pond Books	9	0.9445
Keene State College: IT Security	115	0.9445
U.S. Rep. Adam Schiff	870	0.9417
Harvard University Library	120	0.9416
Moby Lives blog	12	0.9407
Librarian.net	58	0.9404
GrepLaw discussion forum	124	0.9395
Landover Baptist.net forum	65	0.9369
FictionAddition.Net	63	0.9368
National Council of Teachers of English	30	0.9357
American Library Association	27	0.9334

Section 215 sample. The first three principal components served as variables for the analysis.

The scatter plot, provided in Figure A-4, shows that many of the Web sites were similar in how they used the 32 key words in discussion of Section 215 of the USA Patriot Act, as evidenced by a fairly tight pattern of clustering. The concentration of Web sites for Section 215 is slightly less dense than that of Section 214, with a greater number of sites dispersed from the core. Outliers are also more numerous than with the Section 214 sample. Table A-29 reports plotting values, cluster identification, and scatter plot location for a subsample of the Web sites.

Web sites in the core concentration include an online petition at Powells Books, discussion in an online forum at the Opera Community Open Forums, and position statements by a U.S. representative, and two organizations, the Bill of Rights Defense Committee and the Authors Guild.

Content from an online forum as well as political position statements also appear in Web sites that plotted slightly away from the core in the three-dimensional scatter plot. These more dispersed sites varied in their use of language about Section 215 from the core sites by using terms more frequently than those of the core sites.

Inspection of text at the Web sites that plotted as outliers found that discussion was lengthier than that of the core. How these sites discussed Section 215 in frequency of word usage led them to be classified as outliers. These sites include an Islamic blog, a Friends Committee Web page focused on national policies, proceedings of the academic senate at the University of California at Santa Cruz, an essay by sociologist Amitai

Scatter Plot

C341 C342
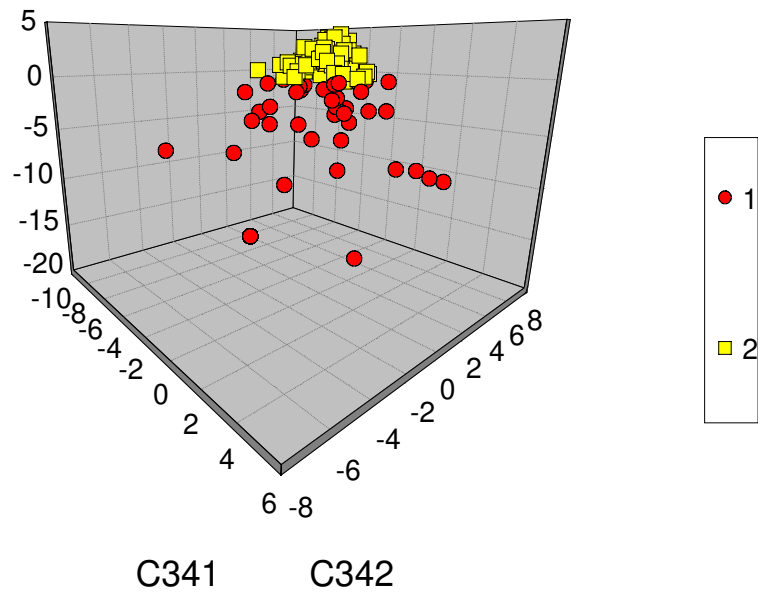
Figure A-4. Scatter plot showing Web sites by cluster for the Section 215 sample.

Table A-29. A subset of Web sites plotted by principal component values.

Web Site, ID, Form of Content	PC1	PC2	PC3	Cluster	Location
Powells Books, 1, commercial	3.2728	0.2022	-0.2941	2	Core
Opera Community, 13, online forum	3.2210	0.5436	0.7752	2	Core
U.S. Rep. Earl Blimenauer, 16, political	3.4617	-0.1828	0.2926	2	Core
Bill of Rights Defense Cmte., 39, political	3.3407	0.1475	0.1674	2	Core
Authors Guild, 49, professional	2.6770	0.5109	-0.6758	2	Core
Open Society Paradox, 24, political	-3.7326	-1.8716	2.8397	1	Dispersed
Armageddon Online, 73, online forum	-1.8442	3.1636	-1.1450	1	Dispersed
Third World Traveler, 10, commercial	-4.5168	1.5149	-0.5969	1	Dispersed
Free Expression Policy Project, 29, political	-5.0290	-0.3115	-0.3822	1	Dispersed
Technology & Democracy Project, 46, political	-2.6096	1.6520	2.0991	1	Dispersed
Muhajabah's Islamic Blogs, 20, blog	-6.4783	2.4237	-4.5455	1	Outlier
Friends Committee, 28, religious/race	-5.0744	5.1960	-2.2176	1	Outlier
U.S. Sen. Russ Feingold, 81, political	-8.3023	-9.2616	-2.5220	1	Outlier
UCSC Academic Senate, 110, institutional	-10.992	1.5636	7.6534	1	Outlier
Communitarian Network, 117, blog	-15.841	-3.7315	-1.0689	1	Outlier

Note. PC1, PC2, and PC3 indicate Principal Components One, Two, and Three.

Etzioni, and statement by U.S. Sen. Russ Feingold, one of the most visible political figures in opposition to the USA Patriot Act.

Next a discriminant analysis was conducted to identify the most statistically significant words in differentiating between the two clusters. The method used a linear discriminant function with stepwise variable selection using a .20 probability enter and .15 probability remove. The 16 words retained appear in Table A-30.

Many of the words were shortened to their canonical forms in WordStat through a process called lemmatization. To aid in interpretation, the lemmatized words were inspected using WordStat's keyword-in-context option and their endings are provided in parentheses following the shortened word forms.

Classification based on resubstitution estimates using the 16 words resulted in a 3.2% error rate, with four of the Web sites within the Section 215 sample misclassified in the clusters. Classification results using more rigorous cross-validation estimates found six Web sites belonging to Cluster Two misclassified into Cluster One. Figure A-5 reports the results.

The words were effective in correctly discriminating 95% of the 124 Web sites that comprise the sample. Based on their performance in the training sample, the set of 16 words is accepted as significant.

Next cluster profiles were developed. Descriptive statistics were used to obtain the means of significant key words identified through discriminant analysis as the most significant in discriminating between the two clusters. Inspection of means allows for the contribution of each key word to the cluster profile to be explored. The value of the means shows large positive or negative departures from the sample mean on key

Table A-30. Linear discriminant functions of 16 key words.

Variable	Cluster One	Cluster Two
Constant	-10.83607	-1.032535
ACTIV(-ity, -ities)	0.6032537	**2.546448E-02**
AMEND(-s, -ment, -ments)	**0.8918766**	0.4189503
AMERICAN(-s)	**-0.3438371**	7.763341E-02
AUTHOR(-s, -ity, ities)	**-1.528088**	-0.3694988
CIVIL	**1.646415**	0.4996582
CONGRESS	**0.8165358**	0.2509957
FEDER(-al)	**-0.9238272**	-0.1414874
GOVERN(-s, -ment, -ments)	**1.071841**	0.3685137
INFORM(-s)	**0.412559**	6.608371E-03
LAW	**0.9280429**	0.2115471
OBTAIN	**0.6861135**	0.0573327
PERSON	**0.4632331**	-5.102348E-02
POWER	**-0.9595204**	-0.4110938
PROVISION	**1.094022**	0.2871914
RECORD	**0.4839056**	0.2301963
SECUR(-e, -es, -ity)	**0.9139127**	0.2350343

Note. Bold type indicates the cluster of association for each key word.

Classification Count Table using Resubstition
Predicted

Actual	1	2	Total
1	42	3	45
2	1	78	79
Total	43	81	124

Note. Reduction in classification error due to X's = 93.5%

Misclassified Rows Section
Percent Chance of Each Group

Row	Actual	Predicted	Pcnt1	Pcnt2
55	1	2	13.8	86.2
67	1	2	34.4	65.6
90	1	2	17.1	82.9
105	2	1	95.0	5.0

Classification Count Table using Cross-Validation

From Cluster	1	2	Total
1	45	0	45
	100.00	0.00	100.00
2	6	73	79
	7.59	92.41	100.00
Total	51	73	124
	41.13	58.87	100.00
Priors	0.5	0.5	

Figure A-5. Cross-validation estimates for the Section 215 sample.

discriminating values.

Table A-31 shows the word profiles for Clusters One and Two. The means of the discriminating words are low for Cluster Two and high for Cluster One, indicating more intensity of language at the Web sites classified into Cluster One. The word "record" was among the most intensely used words in each cluster, and its usage in Cluster One was almost double that of Cluster Two. "Law" and "inform" are also far more dominant in Cluster One. Other words such as "activ" show more even usage patterns between the two clusters. Overall, however, most of the 16 key words were far stronger in usage in Cluster One than in Cluster Two, pointing to differences in intensity of language use between the two clusters with the greatest intensity occurring in Cluster One.

To analyze these differences in context, the Web sites were sorted by cluster using the membership value assigned during the fuzzy cluster analysis. Table A-32 and Table A-33 report memberships by cluster. Cluster One, the cluster of comparatively high intensity of discussion, contained 45 Web sites.

In contrast, 79 sites were classified into Cluster Two. The analysis focused on key differences in language use that drove membership in Cluster One, differentiating those sites from those of Cluster Two. Comparison finds the types of pages in each cluster fairly uniform. Blogs and political sites are contained in each cluster, as are other forms of content. Inspection of the Web sites classified into Cluster One using QDA Miner reveals that overall these Web pages tended to engage in lengthier discussion of Section 215 than those of Cluster Two, which led them to be classified into the Cluster One.

Cross tabulation was used to probe for potential patterns based on cluster membership. Table A-34 analyzes Web sites in Cluster One by point of view on Section

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Table A-31. Word profiles for Clusters One and Two.

Word	Cluster One	Cluster Two
ACTIV(-ity, -ities)	2.5	3.3
AMEND(-s, -ment, -ments)	2.3	1.1
AMERICAN(-s)	2.4	1.4
AUTHOR(-s, -ity, ities)	2.7	0.7
CIVIL	2.3	0.7
CONGRESS	1.8	0.7
FEDER(-al)	2.4	0.7
GOVERN(-s, -ment, -ments)	3.4	1.0
INFORM(-s)	4.9	0.9
LAW	5.3	1.2
OBTAIN	2.4	0.4
PERSON	2.5	0.4
POWER	2.3	0.7
PROVISION	3.1	0.9
RECORD	7.2	2.5
SECUR(-e, -es, -ity)	1.9	0.4

Table A-32. Web sites comprising Cluster One.

Name of Web Site	Domain	Page Type	Page Type	Depth
FindLaw	.com	Commercial	Against	2
Reason Online	.com	Commercial	Against	2
Town Hall.com	.com	Political	For	2
Third World Traveler	.com	Commercial	Against	2
Maud Newton	.com	Blog	Against	3
Muhajabah's Islamic Blogs	.com	Blog	Against	3
Open Society Paradox	.com	Political	For	3
Trust Makers	.com	Commercial	Mixed	3
Friends Committee	.org	Race/Religious	Against	3
Free Expression Policy Project	.org	Political	Against	3
Electronic Privacy Information Cen	.org	Political	Mixed	2
American Civil Liberties Union	.org	Political	Against	2
Manhattan Institute for Policy Rese	.org	Political	For	3
American Bar Association	.org	Professional	Against	3
Society of American Archivists	.org	Professional	Mixed	3
Technology & Democracy Project	.org	Political	For	3
Idaho Librarian	.org	Professional	Mixed	3
November Coalition	.org	Political	Against	2
Blatant Truth	.org	Political	Against	2
The 100 Year March	.org	Political	Against	2
Web Junction	.org	Online forum	Mixed	3
Unknown News	.net	Online entity	Against	2
AttaBoy	.net	Blog	For	2
The Political Arena	.net	Blog	For	3
Media Monitors Network	.net	Online entity	Against	1
This Republican.net	.net	Political	Mixed	2
Armageddon Online	.net	Online forum	Mixed	2
The USA Patriot Act	.net	Online entity	Mixed	2
Congressman Devin Nunes	.gov	Political	For	3
Life and Liberty.gov	.gov	Institutional	For	1
U.S. Department of Justice	.gov	Institutional	For	1
Ask the White House	.gov	Institutional	For	2
U.S. Sen. Russ Feingold	.gov	Political	Mixed	2
Federal Bureau of Investigation	.gov	Institutional	For	1
U.S. Rep. Jim Dunn	.gov	Political	For	2
U.S. Sen. Dianne Feinstein	.gov	Political	Mixed	2
U.S. Sen. Larry Craig	.gov	Political	Mixed	2
U.S. Rep. Nancy Pelosi	.gov	Political	Mixed	1
Univ. of Texas at Arlington	.edu	Institutional	Mixed	3

Table A-32. Continued.

Name of Web Site	Domain	Page Type	Page Type	Depth
Harvard University	.edu	Institutional	Mixed	1
Univ. of CA, Santa Cruz, Academic Senate	.edu	Institutional	Mixed	1
Librarians Assn. Of the Univ of CA	.edu	Professional	Mixed	1
Connecticut Library Association	.edu	Professional	Against	1
The Patriot Act	.edu	Blog	Mixed	3
The Communitarian Network	.edu	Blog	Mixed	1

Note. Values in the column titled depth signify the following: 1 indicates text that represents only one point of view; 2 indicates an acknowledgement of other points of view in addition to the one being advocated; and 3 indicates more detailed discussion of other points of view, including hypertext linking activity.

Table A-33. Web sites comprising Cluster Two.

Name of Web Site	Domain	Page Type	Viewpoint	Depth
Powells Books	.com	Commercial	Against	2
American Booksellers Foundation	.com	Professional	Against	1
Journal of Lurker	.com	Blog	Against	1
Tom Paine.common sense	.com	Political	Against	1
Pejmanesque	.com	Blog	For	2
Bear Pond Books	.com	Commercial	Against	1
Moby Lives	.com	Blog	Against	2
Patriot Debates	.com	Professional	For	3
Opera Community	.com	Online Forum	For	1
Alibris	.com	Commercial	Against	2
Comic Book Resources	.com	Commercial	Against	2
US Rep. Earl Blimenauer	.com	Political	Against	3
CounterPunch	.com	Political	Against	2
I Protest: Ashcroftian Lies	.com	Blog	Against	3
Linux Security.com	.com	Online Entity	Against	2
Oh, That Liberal Media	.com	Blog	For	2
Greg Parke	.com	Political	For	2
Holt Uncensored	.com	Blog	Against	2
American Library Association	.org	Professional	Against	2
National Council of Teachers of English	.org	Professional	Against	1
Pacific Northwest Booksellers Assoc	.org	Professional	Against	2
Patriots to Restore Checks and Balances	.org	Political	Mixed	3
Nevada Psychologists.org	.org	Professional	Mixed	3
Hightower Lowdown.org	.org	Political	Against	2
Bill of Rights Defense Committee	.org	Political	Against	1
PA School Librarians Assoc	.org	Professional	Mixed	2
Outragedmoderates.org	.org	Political	Against	2
American Society of Journalists and Authors	.org	Professional	Mixed	1
Michigan Peaceworkers	.org	Political	Against	2
Critical Art Ensemble Defense Fund	.org	Professional	Against	3
Muslim American Society	.org	Race/Religious	Against	2
Authors Guild	.org	Professional	Against	1
California Psychological Association	.org	Professional	Mixed	3
State Green Party (RI)	.org	Political	Against	2
Societas	.net	Blog	Against	2
Librarian.net	.net	Political	Against	3

Table A-33. Continued.

Name of Web Site	Domain	Page Type	Viewpoint	Depth
Civil Liberties Update	.net	Political	Against	2
Capital District Humanist Society	.net	Political	Against	2
FictionAddition.Net	.net	Online Entity	Against	2
Landover Baptist.net	.net	Race/Religious	For	1
Commentary of Jason Burkins	.net	Blog	For	2
USA Patriot Act	.net	Online Entity	Mixed	3
Mark Earnest	.net	Blog	Mixed	3
The Locust Fork	.net	Blog	Mixed	1
Utility Fog	.net	Blog	Mixed	2
Common Sense Chronicles	.net	Blog	For	2
Liberty Coalition	.net	Blog	Mixed	3
Belligerati	.net	Blog	Against	1
State of Michigan	.gov	Institutional	Mixed	1
U.S. Rep. Bernie Sanders	.gov	Political	Mixed	2
KY Dpt. For Libraries and Archives	.gov	Institutional	Mixed	1
U.S. Rep. Adam Schiff	.gov	Political	Mixed	1
U.S. Sen. Lisa Murkowski	.gov	Political	Mixed	1
U.S. Rep. Jo Bonner	.gov	Political	For	2
U.S. Rep. Tom Udall	.gov	Political	Mixed	2
U.S. Embassy, Tokyo	.gov	Political	Mixed	1
U.S. Rep. Joe Schwarz	.gov	Political	Mixed	2
U.S. Rep Jon Kyl	.gov	Political	For	1
Oregon State Library	.gov	Institutional	Mixed	1
U.S. Rep. Jim Moran	.gov	Political	Mixed	1
U.S. Rep. Anna Eshoo	.gov	Political	Mixed	1
U.S. Sen. Pat Roberts	.gov	Political	Mixed	1
U.S. Sen. Ron Wyden	.gov	Political	Mixed	1
U.S. Rep. Peter DeFazio	.gov	Political	Mixed	1
U.S. Embassy, Seoul	.gov	Institutional	For	1
Univ of MO Freedom of Information Center	.edu	Institutional	Mixed	1
Vanderbilt University Library	.edu	Institutional	Mixed	1
University of Illinois at Urbana-Champaign Library	.edu	Institutional	Mixed	1
College of New Jersey Library	.edu	Institutional	Mixed	3
Indiana University Libraries	.edu	Institutional	Mixed	1
Keene State College: IT Security	.edu	Institutional	Mixed	1
Stanford University	.edu	Blog	Mixed	2
Lisa's Liturgies	.edu	Blog	Mixed	1

Table A-33. Continued.

Name of Web Site	Domain	Page Type	Viewpoint	Depth
MayerBlog	.edu	Blog	Mixed	1
Harvard University Library	.edu	Institutional	Mixed	1
Pith, No Longer Windy	.edu	Blog	Mixed	2
j's scratchpad	.edu	Blog	Mixed	2
University of Arizona Tucson Faculty Senate	.edu	Institutional	Mixed	2
GrepLaw	.edu	Online Forum	Mixed	1

Note. Values in the column titled depth signify the following: 1 indicates text that represents only one point of view; 2 indicates an acknowledgement of other points of view in addition to the one being advocated; and 3 indicates more detailed discussion of other points of view, including hypertext linking activity.

Table A-34. Cluster One domain by viewpoint on Section 215.

Domain	Viewpoint			*n*
	For	**Against**	**Mixed**	
.org	2	7	4	15 (28.8%)
.net	2	2	3	7 (15.5%)
.com	2	5	1	8 (17.7%)
.gov	6	0	4	10 (22.2%)
.edu	0	1	6	7 (15.5%)
n	12 (26.6%)	15 (33.3%)	18 (40.0%)	*n*=45

215 and domain. Viewpoint is fairly evenly spread, ranging from 26.6% to 40%. Greater variance can be seen in the types of domains represented in the cluster, with .org and .gov being the most dominant.

To probe further for differences, Fisher's exact test was used to compare cell counts for the .gov domain against those for .org and .net, the latter combined due to the similarity they hold in types of organizations represented in those domains. Opinions for and mixed were combined and compared to viewpoints against the act. Table A-35 reports cell counts for the two-by-two test. The results return a p-value of 0.01, indicating a statistically significant difference does exists.

Table A-36 analyzes page type by point of view on Section 215. The most dominant page form is political in nature, close to two-and-a-half times greater the next highest category, which is institutional Web sites. Opinion concerning Section 215 is evenly spread across the political Web pages. The page type with the lowest cell counts is that of race/religous, containing only oneWeb page.

Table A-37 reports Cluster Two domain by point of view on Section 215. In a pattern similar to that of Cluster One, viewpoint concerning Section 215 in Cluster Two is highest in the mixed category (48%) and lowest in the for category (13.9%). While viewpoint ranges from 11 to 38%, domains represented show a far more even distribution, ranging between 17.7 to 22.8%.

Repeating the Fisher's exact test performed on Cluster One, cell counts for .org and .net domains were combined and analyzed against those of counts for the .gov domain. Table A-38 reports cell counts used for the test. The test returns an alpha of .00, indicating a statistically significant difference.

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Table A-35. Cell counts used for Fisher's exact test on Cluster One.

Domain	For/Mixed	Against	Total
.net/.org	11	9	20
.gov	10	0	10
Total	21	9	30

Table A-36. Cluster One page type by viewpoint on Section 215.

Page Type	Viewpoint			*n*
	For	**Against**	**Mixed**	
Political	6	5	6	17 (37.7%)
Institutional	4	0	0	7 (15.5%)
Blog	2	2	2	6 (13.3%)
Race/Religious	0	1	0	1 (2.22%)
Online Forum	0	0	2	2 (4.44%)
Online Entity	0	2	1	3 (6.66%)
Professional	0	2	3	5 (11.1%)
Commercial	0	3	1	4 (8.88%)
n	12 (26.6%)	15 (33.3%)	18 (40.0%)	*n*=45

Table A-37. Cluster Two domain by viewpoint on Section 215.

Domain	Viewpoint			n
	For	Against	Mixed	
.org	0	11	5	16 (20.3%)
.net	3	6	5	14 (17.7%)
.com	5	13	0	18 (22.8%)
.gov	3	0	14	17 (21.5%)
.edu	0	0	14	14 (17.7%)
n	11 (13.9%)	30 (37.9 %)	38 (48.1%)	n=79

Table A-38. Cell counts used for Fisher's exact test on Cluster Two

Domain	For/Mixed	Against	Total
.net/.org	13	17	30
.gov	17	0	17
Total	30	17	47

Table A-39 reports page type by point of view on Section 215. As with Cluster One, the highest proportion of Web sites were political in nature, 33% of the 79 sites in the cluster. However, unlike Cluster One, blogs (24%) and institutional sites (15%) were also frequent, as were professional sites (11%), showing a greater spread of coverage across page types than with Cluster One.

In the final step of the analysis, a Fisher's exact test was used to analyze whether there were statistically significant difference between the two clusters of the Section 215 sample. For purposes of the two-by-two test and due to their high cell counts, .net and .org Web sites were combined and compared against those of .gov sites. The test examined whether there was a statistically significant difference between Cluster Two and One. Table A-40 reports the cell counts used in the test. The test returned an alpha of .00, indicating a statistically significant difference exists. While statistically significant, the value of this finding is negligible given that few, if any, governmental Web sites are expected to express mixed or negative views on the legislation.

Other Fisher's tests, comparing .net and .org domains with all other domains proved statistically non-significant.

Table A-39. Cluster Two page type by viewpoint on Section 215.

Page Type	Viewpoint			*n*
	For	**Against**	**Mixed**	
Political	3	11	12	26 (32.9%)
Institutional	1	0	11	12 (15.1%)
Blog	4	6	9	19 (24.0%)
Race/Religious	1	1	0	2 (2.53%)
Online Forum	1	0	1	2 (2.53%)
Online Entity	0	2	1	3 (3.79%)
Professional	1	6	4	11 (13.9%)
Commercial	0	4	0	4 (5.06%)
n	11 (13.9%)	30 (37.9%)	38 (48.1%)	*n*=79

Table A-40. Cell counts used for Fisher's exact test comparing Clusters One and Two.

Domain	For/Mixed	Against	Total
.net/.org	2	8	10
.gov	7	0	7
Total	9	8	17

APPENDIX H

ISSUE NETWORK ANALYSIS ACTOR RANKINGS

**USA Patriot Act Section 214, 2005-11-13 06:44:38,
Actor Rankings (crawled population)**

1. washingtonpost.com - 26761
2. nytimes.com - 7615
3. latimes.com - 2782
4. whitehouse.gov - 2604
5. thomas.loc.gov - 1937
6. firstgov.gov - 1900
7. gawker.com - 1627
8. commondreams.org - 1617
9. movabletype.org - 1222
10. washingtonmonthly.com - 1177
11. juancole.com - 1105
12. dailykos.com - 1074
13. atrios.blogspot.com - 999
14. guardian.co.uk - 888
15. foxnews.com - 881
16. house.gov - 875
17. senate.gov - 870
18. aclu.org - 836
19. slate.com - 761
20. thenation.com - 700
21. alternet.org - 660
22. huffingtonpost.com - 646
23. wonkette.com - 595
24. talkingpointsmemo.com - 528
25. drudgereport.com - 513
26. prospect.org - 488
27. nationalreview.com - 481
28. fas.org - 459
29. instapundit.com - 405
30. tompaine.com - 391
31. indymedia.org - 359
32. slate.msn.com - 350
33. state.gov - 345
34. salon.com - 330
35. cato.org - 328
36. counterpunch.org - 326
37. antiwar.com - 310
38. mediamatters.org - 309
39. aei.org - 288
40. boingboing.net - 282
41. epic.org - 268
42. motherjones.com - 253

USA Patriot Act Section 214, Actor Rankings, Continued.

43. newamericancentury.org - 253
44. nato.int - 245
45. cursor.org - 212
46. cdt.org - 210
47. icasualties.org - 198
48. eff.org - 185
49. crooksandliars.com - 182
50. tomdispatch.com - 174
51. fair.org - 163
52. liberaloasis.com - 151
53. democrats.org - 151
54. ala.org - 144
55. inthesetimes.com - 144
56. democracynow.org - 138
57. villagevoice.com - 129
58. redcross.org - 121
59. prwatch.org - 112
60. freepress.net - 107
61. mydd.com - 100
62. progressive.org - 95
63. mediachannel.org - 92
64. democraticmedia.org - 91
65. freespeech.org - 90
66. commoncause.org - 86
67. afsc.org - 78
68. moveon.org - 77
69. globalexchange.org - 76
70. lifeandliberty.gov - 69
71. warandpiece.com - 67
72. powerlineblog.com - 66
73. ready.gov - 57
74. www4.law.cornell.edu - 55
75. bordc.org - 53
76. airamericaradio.com - 42
77. fcnl.org - 41
78. corpwatch.org - 41
79. cbpp.org - 34
80. sba.gov - 32
81. va.gov - 30
82. ntia.doc.gov - 26
83. mfso.org - 25
84. iraqbodycount.net - 25
85. veteransforpeace.org - 25

USA Patriot Act Section 214, Actor Rankings, Continued.

86. supremecourtus.gov - 20
87. blackboxvoting.org - 16
88. aaup.org - 15
89. fairvote.org - 13
90. adc.org - 13
91. uspto.gov - 13
92. back-to-iraq.com - 11
93. epic-usa.org - 10
94. rockthevote.org - 6
95. sunshineweek.org - 0
96. supremecourtus.gov - 0
97. talkingpointsmemo.com - 0
98. talkleft.com - 0
99. technorati.com - 0
100. theassociation.net - 0
101. thenation.com - 0
102. thirdworldtraveler.com - 0
103. tomdispatch.com - 0
104. tompaine.com - 0
105. trustprofessionals.com - 0
106. truthout.org - 0
107. uspto.gov - 0
108. va.gov - 0
109. veteransforpeace.org - 0
110. virtuemag.org - 0
111. warandpiece.com - 0
112. washingtonmonthly.com - 0
113. washingtonpost.com - 0
114. whitehouse.gov - 0
115. winningargument.blogspot.com - 0
116. wired.com - 0
117. wonkette.com - 0
118. zmag.org - 0
119. cato.org - 0
120. villagevoice.com - 0
121. aaup.org - 0
122. aclu.org - 0
123. action.aclu.org - 0
124. adc.org - 0
125. aei.org - 0
126. afsc.org - 0
127. airamericaradio.com - 0
128. ala.org - 0

USA Patriot Act Section 214, Actor Rankings, Continued.

129. allamericanpatriots.com - 0
130. alternet.org - 0
131. amuslimvoice.org - 0
132. anticollective.blogspot.com - 0
133. atrios.blogspot.com - 0
134. back-to-iraq.com - 0
135. billofrights.net - 0
136. billroggio.com - 0
137. bordc.org - 0
138. cbpp.org - 0
139. cdt.org - 0
140. civilrights.ghazali.net - 0
141. codepink4peace.org - 0
142. commoncause.org - 0
143. congress.org - 0
144. corpwatch.org - 0
145. counterpunch.org - 0
146. crooksandliars.com - 0
147. crypto.com - 0
148. d-anconia.com - 0
149. defenselink.mil - 0
150. democracynow.org - 0
151. democraticmedia.org - 0
152. democrats.org - 0
153. dhs.gov - 0
154. eff.org - 0
155. engatiki.org - 0
156. epic-usa.org - 0
157. epic.org - 0
158. fair.org - 0
159. fairvote.org - 0
160. fbi.gov - 0
161. fcnl.org - 0
162. feinstein.senate.gov - 0
163. firstgov.gov - 0
164. fotoamigo.com - 0
165. freeexpression.org - 0
166. freepress.net - 0
167. freespeech.org - 0
168. gawker.com - 0
169. globalexchange.org - 0
170. guardian.co.uk - 0
171. house.gov - 0

USA Patriot Act Section 214, Actor Rankings, Continued.

172. huffingtonpost.com - 0
173. icann.org - 0
174. inthesetimes.com - 0
175. iraqbodycount.net - 0
176. leahy.senate.gov - 0
177. library.vanderbilt.edu - 0
178. loc.gov - 0
179. manhattan-institute.org - 0
180. marblehead-bordc.org - 0
181. mediachannel.org - 0
182. mediamatters.org - 0
183. mfso.org - 0
184. michiganimc.org - 0
185. motherjones.com - 0
186. movabletype.org - 0
187. mydd.com - 0
188. nationalreview.com - 0
189. ncsl.org - 0
190. news.spamcop.net - 0
191. ntia.doc.gov - 0
192. nycbordc.org - 0
193. nytimes.com - 0
194. oldright.com - 0
195. pen.org - 0
196. politicalforums.net - 0
197. populistamerica.com - 0
198. powerlineblog.com - 0
199. progressive.org - 0
200. prospect.org - 0
201. prwatch.org - 0
202. quietpoly.com - 0
203. rand.org - 0
204. redcross.org - 0
205. salon.com - 0
206. sb-bordc.org - 0
207. sba.gov - 0
208. senate.gov - 0
209. slate.com - 0
210. slate.msn.com - 0
211. sonoran-sunsets.com - 0
212. state.gov - 0
213. strike-the-root.com - 0

**USA Patriot Act Section 215, 2005-11-14 08:03:59,
Actor Rankings (crawled population)**

1. washingtonpost.com - 7965
2. nytimes.com - 7023
3. technorati.com - 5844
4. creativecommons.org - 4261
5. findlaw.com - 4186
6. cnn.com - 2916
7. whitehouse.gov - 2899
8. thomas.loc.gov - 2621
9. latimes.com - 2263
10. foxnews.com - 1758
11. house.gov - 1528
12. movabletype.org - 1524
13. townhall.com - 1504
14. news.bbc.co.uk - 1475
15. commondreams.org - 1413
16. epic.org - 1256
17. firstgov.gov - 1245
18. atrios.blogspot.com - 1072
19. aclu.org - 1011
20. washingtonmonthly.com - 1004
21. dailykos.com - 959
22. juancole.com - 943
23. senate.gov - 939
24. eff.org - 929
25. boingboing.net - 896
26. powerlineblog.com - 893
27. nationalreview.com - 867
28. counterpunch.org - 827
29. instapundit.com - 766
30. salon.com - 752
31. slashdot.org - 733
32. bloglines.com - 689
33. heritage.org - 685
34. guardian.co.uk - 665
35. talkingpointsmemo.com - 662
36. hughhewitt.com - 658
37. andrewsullivan.com - 655
38. mediamatters.org - 644
39. jameswolcott.com - 596
40. alternet.org - 591
41. prospect.org - 572
42. npr.org - 547

USA Patriot Act Section 215, Actor Rankings, Continued.

43. reason.com - 515
44. drudgereport.com - 488
45. theonion.com - 422
46. cursor.org - 365
47. statcounter.com - 312
48. fair.org - 300
49. thenation.com - 280
50. wonkette.com - 270
51. cdt.org - 246
52. tompaine.com - 245
53. csmonitor.com - 227
54. prwatch.org - 216
55. weeklystandard.com - 208
56. mapquest.com - 201
57. cato.org - 196
58. freepress.net - 190
59. realclearpolitics.com - 169
60. chicagotribune.com - 166
61. state.gov - 154
62. democracynow.org - 152
63. defenselink.mil - 150
64. villagevoice.com - 149
65. bordc.org - 146
66. hrw.org - 143
67. michaelmoore.com - 131
68. motherjones.com - 128
69. ed.gov - 116
70. antiwar.com - 112
71. commoncause.org - 104
72. vote-smart.org - 104
73. thismodernworld.com - 90
74. democraticmedia.org - 86
75. moveon.org - 85
76. unitedforpeace.org - 84
77. mediachannel.org - 84
78. rawstory.com - 81
79. economist.com - 79
80. afsc.org - 74
81. va.gov - 72
82. opensecrets.org - 71
83. aei.org - 70
84. supremecourtus.gov - 68
85. lifeandliberty.gov - 64

USA Patriot Act Section 215, Actor Rankings, Continued.

86. progressive.org - 60
87. redcross.org - 44
88. veteransforpeace.org - 43
89. corpwatch.org - 42
90. indymedia.org - 38
91. yahoo.com - 36
92. uscourts.gov - 31
93. amnesty.org - 25
94. iraqbodycount.net - 25
95. fedstats.gov - 19
96. ranchero.com - 17
97. schwarz.house.gov - 0
98. senate.gov - 0
99. slate.msn.com - 0
100. state.gov - 0
101. suntimes.com - 0
102. supremecourtus.gov - 0
103. talkingpointsmemo.com - 0
104. tcnj.edu - 0
105. technorati.com - 0
106. thatliberalmedia.com - 0
107. thenation.com - 0
108. thirdworldtraveler.com - 0
109. thismodernworld.com - 0
110. thisrepublic.net - 0
111. tompaine.com - 0
112. tomudall.house.gov - 0
113. townhall.com - 0
114. tsujiru.net - 0
115. turing.plymouth.edu - 0
116. unitedforpeace.org - 0
117. unknownnews.net - 0
118. usa-patriot-act.iqnaut.net - 0
119. uscourts.gov - 0
120. users.adelphia.net - 0
121. users.law.capital.edu - 0
122. va.gov - 0
123. vanderbilt.edu - 0
124. veteransforpeace.org - 0
125. villagevoice.com - 0
126. vote-smart.org - 0
127. washingtonmonthly.com - 0
128. washingtonpost.com - 0

USA Patriot Act Section 215, Actor Rankings, Continued.

129. washingtontimes.com - 0
130. weeklystandard.com - 0
131. whitehouse.gov - 0
132. wonkette.com - 0
133. writ.news.findlaw.com - 0
134. www-eshoo.house.gov - 0
135. wyden.senate.gov - 0
136. yahoo.com - 0
137. aclu.org - 0
138. action.aclu.org - 0
139. aei.org - 0
140. afsc.org - 0
141. ala.org - 0
142. alternet.org - 0
143. archivists.org - 0
144. armageddononline.net - 0
145. asja.org - 0
146. atrios.blogspot.com - 0
147. attaboy.tommydoc.net - 0
148. authorsguild.org - 0
149. bcsia.ksg.harvard.edu - 0
150. belligerati.net - 0
151. bernie.house.gov - 0
152. blackshade.net - 0
153. blatanttruth.org - 0
154. bordc.org - 0
155. cato.org - 0
156. cdt.org - 0
157. chicagotribune.com - 0
158. cms.hhs.gov - 0
159. cnn.com - 0
160. commoncause.org - 0
161. commondreams.org - 0
162. conservative.org - 0
163. corpwatch.org - 0
164. counterpunch.com - 0
165. counterpunch.org - 0
166. creativecommons.org - 0
167. cryptome.org - 0
168. csmonitor.com - 0
169. cyberlaw.stanford.edu - 0
170. defazio.house.gov - 0
171. defenselink.mil - 0

172. democracynow.org - 0
173. democraticmedia.org - 0
174. dol.gov - 0
175. earlblumenauer.com - 0
176. ed.gov - 0
177. ee.iusb.edu - 0
178. eff.org - 0
179. en.wikipedia.org - 0
180. epic.org - 0
181. event.green-arrow.net - 0
182. fair.org - 0
183. fbi.gov - 0
184. fcnl.org - 0
185. fedstats.gov - 0
186. feinstein.senate.gov - 0
187. fema.gov - 0
188. fepproject.org - 0
189. fictionaddiction.net - 0
190. firstgov.gov - 0
191. freepress.net - 0
192. gort.ucsd.edu - 0
193. gp.org - 0
194. grep.law.harvard.edu - 0
195. guardian.co.uk - 0
196. heritage.org - 0
197. holtuncensored.com - 0
198. home.blarg.net - 0
199. house.gov - 0
200. iraqbodycount.net - 0
201. jameswolcott.com - 0
202. japan.usembassy.gov - 0
203. kdla.ky.gov - 0
204. keene.edu - 0
205. kyl.senate.gov - 0
206. laughatliberals.com - 0
207. leap-kids.net - 0
208. lessig.org - 0
209. libertycoalition.net - 0
210. librarian.net - 0
211. libraries.uta.edu - 0
212. library.uiuc.edu - 0
213. lii.org - 0
214. linuxsecurity.com - 0

USA Patriot Act Section 215, Actor Rankings, Continued.

215. locustfork.net - 0
216. manhattan-institute.org - 0
217. markearnest.net - 0
218. masnet.org - 0
219. maudnewton.com - 0
220. mediachannel.org - 0
221. mediamatters.org - 0
222. michaelmoore.com - 0
223. mobylives.com - 0
224. moran.house.gov - 0
225. motherjones.com - 0
226. movabletype.org - 0
227. mozilla.org - 0
228. muhajabah.com - 0
229. multiracial.com - 0
230. my.opera.com - 0
231. mysite.verizon.net - 0
232. nationalreview.com - 0
233. ncte.org - 0
234. news.bbc.co.uk - 0
235. november.org - 0
236. npr.org - 0
237. nytimes.com - 0
238. opensecrets.org - 0
239. opensocietyparadox.com - 0
240. openthegovernment.org - 0
241. oregon.gov - 0
242. owlnet.rice.edu - 0
243. pejmanesque.com - 0
244. pen.org - 0
245. powells.com - 0
246. powerlineblog.com - 0
247. privacy.org - 0
248. progressive.org - 0
249. prospect.org - 0
250. prwatch.org - 0
251. psla.org - 0
252. ranchero.com - 0
253. rawstory.com - 0
254. realclearpolitics.com - 0
255. reason.com - 0
256. redcross.org - 0
257. rightwingnews.com - 0

USA Patriot Act Section 215, Actor Rankings, Continued.

258. roberts.senate.gov - 0
259. salon.com - 0
260. schneier.com - 0

VITA

Memphis, Tennessee, native Margot Emery earned a bachelor's degree in communication arts at Southwestern at Memphis, now Rhodes College, in 1983, with minors in fine arts and political science. As an undergraduate, she worked extensively in college radio and gained skill through internships with community newspapers and in the news division of WMC-TV (NBC). She was guided by the late Raymond Hill, a distinguished broadcaster and educator.

Emery entered the master's program in the College of Communications at the University of Tennessee, Knoxville in 1983 with a Bickel Fellowship and progressed through coursework in journalism and political science on the college's then professional track. During this period she worked as a graduate assistant in the university's department of student publications and as an intern in corporate communications at the worldwide headquarters of Holiday Inns, Inc. She left Knoxville in 1986 to accept the position of news bureau manager at Tennessee Technological University in Cookeville. In 1993, while continuing with Tennessee Tech, she returned to the program, completed coursework requirements, and proceeded with a thesis, which examined Internet adoption and use by innovator and early adopter communicators in Tennessee.

Inspired by the research of mentors M. Mark Miller and Benjamin J. Bates and the potentials of studying new media, she entered the college's doctoral program, where she was the first student from a traditional communications background to pursue a concentration in information sciences. Her minor was in the university's Intercollegiate Graduate Statistics Program (IGSP). During this time, she transferred from Tennessee

Tech to work at the University of Tennessee's Institute of Agriculture, where she continues today as senior writer/producer.

Her plans for the future include additional research on new media developments and effects.