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The Networked Political Blogosphere and Mass Media: Understanding How Agendas are Formed, Framed, and Transferred in the Emerging New Media Environment

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by

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Dedication

This dissertation is dedicated to my husband, César Rene Meraz, and daughter, Nora Tamar Meraz, for their love, patience, and support through the writing of this work.

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This dissertation applied mass communication theory and the interdisciplinary theory of social network analysis to the networked political blogosphere and its relationship to mass media. Utilizing such mass communication theories as agenda setting, the two-step flow, and gatekeeping, this study examined eighteen political blogs across the political spectrum (left-leaning, right-leaning, and moderate blogs), two elite mass media outlets (the *New York Times* and the *Washington Post)*, and two elite mass media blogs (political blogs from the *New York Times* and the *Washington Post*), using both hyperlink analysis as well as textual content analysis. Hyperlinking provided information on gatekeeping and the social network connections between blogs and mass media and among the different ideological political blog networks. Content analysis conducted at the issue and the issue attribute level provided a second layer of evidence to analyze how agendas are formed, framed, and transferred in the emerging new media environment.

All the both levels of textual content analysis and hyperlink analysis, this dissertation found solid support for the operation of both mass media agenda setting and social network influence at both the issue and the attribute level. Though the agenda setting function of the press is still a tenable assumption, blogs from all ideological spectrums were able to set the mass media's agenda. The issue agendas of blogs of shared partisan perspective, particularly the agenda of the left-leaning blogosphere, provided strong evidence of homogenous issue adoption by blogs of the same partisan network neighborhood or social network. At the attribute level, strong correlations between the agendas of blogs and media, and among the agendas of blogs that share ideological perspectives, highlight the need for deeper analysis at causation to determine whether the media or blogs set each other's agenda.

This dissertation contributes to mass communication studies and political communication through its identification of political social networks as a complementary and competitive agenda setting force in the context of the US political blogosphere. These findings call for a revision of the relationship between agenda setting and the two-step flow theory towards an acknowledgement of how they work in both complementary and competitive ways to redefine the role of the press and social influence in networked political environments. These findings also highlight the significance of social network analysis as a methodology to explain how agendas are formed and framed in the emerging new media environment.

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Chapter 1: Networked Politics and Mass Media

As the Web continues to move from a unidirectional, read-only environment to one which supports greater interactivity, global public participation, and more diverse forms of content creation and distribution (O'Reilly, 1999, 2004, 2005), it is debatable whether these new technologies can inspire greater democracy and heightened civic participation. Scholars point to a changing business model of news content production where mass media entities no longer control the tools of news production, and where the long tail of abundant niche media fragment and divide news audiences into issue publics joined together by shared interests (Anderson, 2006; Bowman & Willis, 2003; Gillmor, 2004; Sunstein, 2002, 2001, 2000). Web enthusiasts champion the potential of these new technologies to create a more distributed and decentralized form of control, allowing a bottom-up resurgence of citizen participation as opposed to a top-down form of media control (Crumlish, 2004; Levine, Locke, Searls, & Weinberger, 2000; Scoble & Israel, 2006; Suroweicki, 2005; Weinberger, 2002, 2007). This inversion of social control, moving power from the elites to the masses, or from the top of the hierarchy to the ends of the network, is the utopian ethic that excites Internet theorists who study the democratic potential of these emergent Web technologies.

Yet, it is often questioned whether these new technologies are impacting traditional media's way of doing business. More importantly, as citizen journalism or journalism by the public becomes more of an accepted practice both within the traditional newsroom and through independent publications, it is important to assess the role that these alternative outlets are playing in our democracy. This study turns attention to the political blogosphere, a genre specific content category of the blogosphere that has gained the most attention from the traditional mass media newsroom.

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POLITICAL BLOGS VS TRADITIONAL MEDIA

Two recent and related news events in 2007 provide perfect examples of the growing power of the political blogosphere within US politics. These examples also provide a glimpse into the tenuous relationship between traditional media and political blogs. On July 16, 2007, Bill O'Reilly of *Fox News'* The O"Reilly Factor launched an attack on the popular progressive political blog *The Daily Kos* two weeks before their annual convention, YearlyKos. Presenting a commentary titled, "JetBlue and the Radical Left," on the Talking Points Memo segment of his show, O'Reilly was reacting to a variety of reader comments carefully culled from the thousands of daily comments left on reader forums at *The Daily Kos* blog. In reference to the recurrence of Tony Snow's cancer, O'Reilly cited one reader who wrotes on *The Daily Kos* that "the world would be better off without him," He quoted another reader who said, "the pope is a primate" and another who said, "evangelicals are nutcases." O'Reilly went on to call *The Daily Kos* a "vicious far left Web site," and "one of the worst examples of hatred America has to offer." The television segment progressed to O'Reilly's attack on JetBlue, a corporate sponsor of the 2007 YearlyKos convention in Chicago. He showed a *FOX News* reporter accusing David Barger, JetBlue CEO, of subscribing to and legitimatizing reader commentary, a conclusion the reporter reached based on JetBlue's corporate sponsorship of the YearlyKos convention. O'Reilly goes on to observe that *The Daily Kos* site, a sponsor of "hatemongering," should be held accountable, and that the readers' comments on that site are akin to the "Klu Klux Klan" and the "Nazi Party".

The blogosphere and the Democratic political establishment were quick to respond to what was perceived as vitriolic commentary by O'Reilly. Markos Moulitsas Zuniga, founder and chief blogger for *The Daily Kos,* then vacationing in Greece, posted

some of the hate mail he received from O'Reilly's fan base on the blog. Moulitsas Zuniga quoted one person as telling him, "I hope you choke on the smog & drown in the global warming waters caused by cows. You people are so stupid." Another hate mail he received said: "Why can't you people make a living, instead of hating everyone else? Are you all Muslims?" In retort to O'Reilly's accusations, Moulitsas, taking aim at *FOX News*, replied that O'Reilly runs the most hate-filled television show in cableland, on the Republican Party's premier propaganda outlet (Moulitsas Zuniga, 2007).

Democratic candidates were also keen to distance themselves from O'Reilly's viewpoints and to defend their planned attendance at the 2007 YearlyKos convention. Citing several extreme views offered by guests on the O'Reilly show towards Democrats, Howard Wolfson, communications director for Hillary Clinton's campaign, stated that it would be unreasonable to attribute views posted by readers to the attendees at the YearlyKos convention (Daou, 2007). Using O'Reilly's prior comments about a rape and murder victim that "wearing a miniskirt and a halter top. ... [E]very predator in the world is gonna pick that up at 2 in the morning," Hari Sevugan, communications director for Chris Dodd, critiqued O'Reilly for his handpicking of extreme comments as representative of *The Daily Kos'* online community (Ttagaris, 2007).

This incident bears the hallmark characteristics of the skeptical relationship between the political blogosphere and mass media circles. The freewheeling conversation, characteristic of the tone and personal voice of blog writing, was rampant between Democratic bloggers and the *FOX News* outlet—a newsroom publicly perceived as a champion of Republican value systems by the progressive blogosphere. The Democratic political establishment, eager to maintain a close connection to the liberal political blogosphere, were swift to defend the right of individuals to free speech on the

Internet as well as to highlight O'Reilly's misunderstanding of the role of Web forums in the modern American democracy.

This media-blogosphere clash occurred a couple of weeks before a more friendly and open display of affection between traditional media and the political blogosphere at the August 1, 2007, YearlyKos convention held at McCormick Place Convention Center in Chicago. Present at the convention were seven of the eight Democratic presidential hopefuls and 200 traditional media journalists. Howard Dean, Chairman of the Democratic National Committee and the first presidential candidate to use a candidate blog in his 2004 run for the Democratic presidential nomination, gave an address detailing the changing dynamics of power in the political arena. Building on his populist platform established in his earlier run for the 2004 US presidency, Dean noted that the Internet shares balance of power between political establishments and "networks of committed citizens" such that "community-built networks will have a more dramatic effect in bringing democracy to both America and to creating democracy where it doesn't exist now." (Sifry, 2007).

Traditional media were in full attendance at 2007 YearlyKos, focusing on different aspects of the event in their reports to their affiliated media companies. Live-blogging the entire convention, Kate Phillips of the *New York Times* focused one of her blog posts on the panel event in which 2008 Democratic contenders for the party's nomination gave their stance on accepting financial contributions from lobbyists (Philips, 2007). Interestingly, the event was moderated by Mat Bai of the *New York Times Magazine,* a journalist who has a reputation for reporting on issues in the political blogosphere. Jose Antonio Vargas (2007a) of the *Washington Post* noted the turning of tables between who is defined as an insider and an outsider at this convention, recalling an incident where Steven Thomma, veteran political reporter for McClatchy Newspapers,

turned to another reporter during Senator Hillary Clinton's breakout session to ask: "Are politicians trying to reach the bloggers? Or are they trying to reach us" -- journalists -- "through the bloggers?" In another article, Vargas (2007b), assessing the role of the political blogosphere in current US politics, referred to blogs as, "powerful backroom players in Democratic circles." Byron York (2007) of the *National Review,* noted that the YearlyKos convention showed that "activist websites have taken their place as the newest wing of the establishment in Democratic-party politics." Jonathan Kaplan (2007) of *The Hill* noted that YearlyKos strengthens, "the bond between the blogosphere and the Democratic Party", with the three-day convention allowing the blogosphere to "flaunt their power in front of the mainstream media."

These two related examples provide an excellent catalyst for a discussion of the growing power of networked politics in the blogosphere as it relates to existing US politics and traditional media. This love-hate relationship between traditional media and the networked political blogosphere, characterized by periods of close association and estrangement, has been a feature of the new mass media landscape since political blogs arose as a force in US politics in the aftermath of the 9/11 US terrorist attacks. Blogs matured in 2003 with the War in Iraq and during the 2004 presidential elections when political bloggers served an influential role as supporters and fundraisers for their candidates of like-minds. In 2004, presidential candidates readily utilized candidate blogs on their Web sites and sought advice and financial support from political bloggers in the hopes of tapping the grassroots for small-dollar contributions. For the first time in US political history, bloggers were treated like journalists by having press passes to live-blog the 2004 Democratic and Republican national conventions (Meraz, 2005). Independent political bloggers sat side by side with traditional media journalist bloggers, a symbolic

gesture that would point the way towards a future shared media ecosystem between alternative and mainstream media.

This symbolic connection would supercede presidential politics in other election contexts. On November 8, 2006, CNN invited 28 political bloggers from across the ideological spectrum to attend its E-lection Blog Party at the Tryst coffeehouse in Washington DC. These influential bloggers were invited to spend the night live-blogging their opinions about the 2006 Senate and the House election results as they poured in state by state. CNN political reporters Anderson Cooper, John King, Candy Crowley and Wolf Blitzer discussed the new influential role that blogs are playing in the political process, while the audience were invited to form its own opinions by following the bloggers' experience through CNN live reports and through the bloggers' personal blogs.

The political blogosphere is just one genre of blogs in an ever-expanding network of blogs and blog genres. The blogosphere supports such blog genres as entertainment, hobby blogging, mommyblogging, and technology blogging, to name a few content categories. To date, blogging as a Web activity continues to grow. Technorati, which began the tracking of the blogosphere in 2004 with its *State of the Blogosphere* reports (Sifry, 2007), altered its first 2007 report to the *State of the Live Web,* a semantic change meant to capture the growth of social media, of which one facet is the blogosphere. As of April 2007, Technorati tracked over 70 million Weblogs with 120,000 new blogs being created each day and 1.4 million blog posts created every second (Sifry, 2007).

Blogs have matured to support different issue publics, a recognition that the blogging audience is diverse both in blog creation and blog readership (Blogads, 2006). A 2006 Pew report found that 39% and 8% of the Internet audience read and create blog content respectively (Lenhart & Fox, 2006). Though this report found that the primary usage of blogs was as a vehicle for personal chronicling, the usage of blogs for political

activism remains highly publicized in the media. The line between journalism and blogging is further blurred by the fact that 34% of bloggers consider their blogs to be a form of journalism, and of those that engage in journalistic acts, 56% of them verify facts contained in their citizen journalism blog postings (Lenhart & Fox, 2006).

The growth of political blogs is taking place against the backdrop of an altered media landscape that has blurred the lines of distinction between amateur or citizen journalists and their more elite counterparts in the traditional media industries. Web technologies now afford a greater level of participation from the public (Anderson, 2006; Christensen, 2003a, 2003b; Reynolds, 2006). Traditional media industries no longer hold monopoly power over the tools of news creation and distribution, and the public is now able to leverage their Web-based social networks to create, share, and distribute information through Internet applications that now afford a much higher level of participation and creativity than the previous era of Web-based tools (Barabasi, 2002, 2003; Gladwell, 2002; Leadbeater & Miller, 2005; Scoble & Israel, 2005; Weinberger, 2002).

The most popular political blogs command a readership that rivals that of traditional media outlets. For example, the popular liberal blog *The DailyKos* draws in over 600,000 unique visitors a day (Armstrong & Moutlisas, 2006), a figure in league with the largest newspapers in the US. Political blogs have played a role in the resignations of former CNN Chief News Executive Eason Jordon and journalist Dan Rather and in the resignation of Trent Lott from his position as Senate Minority Leader; however, the exact influence of the blogs on media reports about these stories remain open to debate. The influence of political blogs became more apparent in the latter half of 2006. Liberal blogs banded together in an online clearinghouse called ActBlue to provide grassroots financial support to Democratic candidates for the 2006 Senate and House

races. Candidates such as Ned Lamont of Connecticut, James Webb of Virginia, and Jon Tester of Montana were dubbed 'netroots' or people-powered candidates—terms that actively capture the increasing role of blogs as grassroots vehicles for citizen engagement in the US political process.

This dissertation proposes to examine the relationship between polticial blogs and traditional media as well as the relationships among political blogs across an ideological spectrum. Using pre-existing communication theories such as agenda setting, gatekeeping, and the two-step flow, in tandem with the interdisciplinary focus of social network analysis, this dissertation proposes to examine how political agendas are formed, framed, and transferred through social networks and power relations between mass media and the blogosphere. In this emerging media environment, this dissertation seeks to establish the role of online social networks in the transference and interpretation of both media and blog agendas. Furthermore, this dissertation argues for the importance of social network analysis as a methodological tool in assessing structural relations among interpersonal political communities in the networked Internet environment. To date, social network analysis remains an underutilized methodological tool in political communication research.

INTERPLAY OF AGENDA SETTING AND TWO-STEP FLOW THEORY

New media scholars often question the relevancy of existing mass communication theories in the networked environment of the Internet. To date, very little work has been done in assessing the relevancy of prior communication theories to the flow of information in the political blogosphere. This dissertation seeks to test the competing influences of media agenda setting and the two-step flow theory in a networked political environment. Assessing how these two theories compete and coexist in the spread of the

information both within the blogosphere and between the blogosphere and traditional mass media can aid in understanding the role of political bloggers in political communication.

Agenda setting is a theory of mass media power that predicts the media can transfer the saliency of issues and issue attributes from its agenda to the public agenda (McCombs, 2004; McCombs & Shaw, 1972). Explicating this central hypothesis as it relates to the mass media and the blogosphere, the agenda setting theory woiuld predict that for the majority of blogs, traditional media would transfer its issue and attribute agendas to their blog agenda. Though the extent of agenda setting effects may not be uniform due to the psychological component of the agenda setting theory—which qualifies media's agenda setting power based on an individual's need for orientation—the dominant flow of information remains from mass media to the public. Figure 1 (Appendix B) provides a model of media agenda setting influence as it could pertain to the relationship between the mass media and the blogosphere.

In contrast to the agenda setting theory, which predicts various degrees of direct influence on blogs, the two-step flow theory predicts that media influence will flow to opinion leaders who then disseminate mass media messages to those less elite and influential members of the public. Translating such a theory to the networked blogosphere would suggest that mass media messages flow to the more central hubs or elite blog authorities. These elite blog authorities then filter mass media messages to the less popular or elite blogs. Figure 2 (Appendix B) presents a model of the two-step flow theory as it would relate to the blogosphere if opinion leaders were elite blogs that transferred mass media messages to less elite blogs.

Researchers have pointed out modifications to the two-step flow theory to take account of alternative structural positions in a network, such as opinion sharing among

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elites (Robinson, 1976; Troldahl, 1966-67; Troldahl & Van Dam, 1965-66), and opinion transfer from marginal network members to central network members (Weimann, 1982, 1983). This dissertation focuses on the influence of elite blogs across the political spectrum. Studies show that mass media tend to focus on more elite blogs, using these blogs as a cognitive shortcut to understanding the media messages and stories that gain buzz in the blogosphere (Adamic & Glance, 2005; Drezner & Farrell, 2004). Using the two-step flow, this dissertation seeks to understand the influence that elite bloggers have on each other across ideological spectrums. As opposed to the traditional interpretation of the two-step flow model, this dissertation focuses on the role that opinion sharing among elite actors plays in the setting of agendas, both at the issue and the attribute level.

Finally, in examining the interplay of influence between traditional agenda setting theory and the competing theory of the two-step flow, this dissertation seeks to parse how both theories work together in the networked environment of the blogosphere by focusing on the relative strength of each effect pertaining to the study of select public affairs issues through 2007. As opposed to treating these two theories as competing, this study examines how both effects work together to spread information across the networked blogosphere.

This dissertation also seeks to establish the importance of social network analysis to the study of political communication contexts. Social network analysis is an interdisciplinary theory that has been used in the study of networked environments across sociology, physics, and World Wide Web networks (Newman, 2003). This study will examine how structural relationships among blogs and between traditional media and blogs impact the flow of information in the networked political blogosphere.

As Figure 3 (Appendix B) highlights, social network analysis can uncover the richness of relationships that exists under the surface of interpersonal relationships. These

relationships provide the glue to how information diffuses in a networked Web environment. For example, it is possible that some bloggers do behave like opinion leaders based on their centrality and elite reputation in the blogosphere. Blogs of different political ideologies may choose not to link to each other, or may share information in an effort to debunk each other's perspectives. Some blogs act like bridges, connecting disparate communities of influence through the act of hyperlinking. Elite blogs in one context may serve as marginal blogs in another context based on partisan leaning. It is also possible that different issues result in varying network models of social connections.

In uncovering the patterns of connections between the blogosphere and the mass media, as well as within the blogosphere, it is hoped that through this academic study, more can be learnt about how information and news are diffused and shared among diverse blog communities and media entities in networked political environments.

This dissertation consists of eleven chapters, including this introductory chapter. Chapter 2 traces the impact of the Web on US politics, giving background into the historical take off of the political blogosphere, a history that has yet to be fully documented. Chapter 3 outlines agenda-setting theory, the two-step flow theory and gatekeeping, assessing their relevancy to the study of networked political environments. Chapter 4 turns attention to the theory of social networks, and makes the case for the importance of using social network analysis as a complementary theory to previously mentioned mass communication theories of influence between mass media and the public and in interpersonal communication environments. Chapter 5 outlines the hypotheses and research questions that are being posed in this study, while Chapter 6 provides an explanation of the methodology, including blog sample, issue selection, and data coding decisions for this study. Chapters 7 through 10 present the study's results and Chapter 11

provides further analysis of the results as they relate to the democratic potential of the networked blogosphere.

It is felt that this study will significantly contribute to the political communication field. As Graber (2005) noted, political communication can benefit from greater attention to the study of social networks as they impact the flow of information. Few communication scholars apply this theory to the study of mass communications (Tremayne, 2004, 2006). Little published work has yet been conducted on the feasibility of preexisting communication theories to the flow of information in the networked political blogosphere. And, to date, no work has been published on the interplay of influence between existing communication theories and related interdisciplinary theories that can extend understanding of the relative strengths of mass media and interpersonal networks in the flow of both mass media messages and alternative news agendas.

This dissertation seeks to fill the current lacuna in political communication by focusing on one of the newest forms of social influence: the networked political blogosphere. Understanding how media and social networks work together to spread information will enhance our knowledge of political communication.

Chapter 2: Tracing the History of the Networked Political Blogosphere

This chapter traces the growth of the US political blogosphere to its current power and force. Knowledge of its growth makes it difficult to dismiss the political blogosphere as a passing fad. Tracing its history can show that political blogs have been gaining power in an incremental fashion from the latter part of the 1990s to the current period. Understanding the history of the US blogosphere and its current place in US politics can also provide a solid justification for the significance of research on the political blogosphere in political communication. Finally, detailing the increasing connection between the US political blogosphere and traditional media can provide more perspective on the role that popular political bloggers play in influencing mass media content and each other. Through providing this background on the history of the political blogosphere, it is hoped to provide solid justification for scholarly attention to its networked phenomena.

However, before tracing the growth of the US political blogosphere, it is important to understand how the Web moved from a relatively static, unidirectional medium to one capable of supporting this participatory democracy. The growth of the Web to a medium capable of supporting two-way conversation forms the technological foundation for the growth of the blogosphere. Yet, technological sophistication is not enough to excite scholarly activity in the Web as a communications medium. It is also important to place this technological advancement of the Web's application framework within the discourse of bottom-up democracy. The prior hope in the ability of the Web to create a more participatory democracy goes hand in hand with the development of the Web as a more conversational medium.

This utopian ideal of an emergent democracy fuels the excitement in the ability of blogs to support a great American conversation. This dissertation seeks to question the nature of that conversation, as well as how that conversation impacts the existing function of traditional mass media in its role as chief agenda setter of public opinion.

THE PROMISE OF PARTICIPATORY DEMOCRACY

Similar to prior technologies such as the radio and television, the Internet was seized upon by technological enthusiasts as the savior of democracy and freedom. The enthusiasm that surrounded the hope in the Internet was based on the Internet's unique qualities in contrast to prior information technologies. It was thought that these unique characteristics could fuel greater interactivity and two-way communication, thus improving the waning civic engagement that some believe was brought on by excessive use of television (Putnam, 1995, 1996, 2000). Hacker and Dijk (2000) defined digital democracy as "a collection of attempts to practice democracy without the limits of time, space, and other physical conditions, using ICT's [information and communication technologies] or CMC [computer-mediated communication] instead, as an addition, not a replacement for traditional 'analogue' political practices." These authors believe the Internet could increase the scale and speed of providing information, make political participation easier, allow new political communities to emerge free from governmental intervention, enable citizens to gain political power and voice, and enable representative government to scale more effectively.

Other authors place similar hope in the Internet. Hagen (2000) noted that digital democracy could solve the crisis in political participation and the dysfunctional role of traditional media in the political process. According to Kling, Lee, Teich, and Frankel (1999), the Internet provides a more effective democratic tool when compared to prior

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information technologies because it is affordable, provides many-to-many forms of communication, has low barriers to entry, and is capable of supporting decentralized organizing because it frees communication from the barriers of time and space. Some scholars advocate direct democracy as a viable alternative to governance as opposed to representative government (Barber, 1984; Budge, 1996; Grossman, 1995).

There was no automatic guarantee that the Internet would return power to the masses. The Internet was first developed under a command-and-control communications architecture (Edwards, 1996). Before 1991, the lack of a friendly graphical user interface left the Internet in the hands of experts—engineers, programmers, scientists, and academics—who dictated its development. It was during the 1980s, before the development of the World Wide Web, that Richard Stallman, MIT researcher, advocated for the free software revolution, protesting against the black boxing of computer software code. Opposing the capitalist and commercial impulse that drove entrepreneurs to see financial gain through limiting software development from the amateur, Stallman's notion of offering free software through public release of the software's source code under the General Public License was part and parcel of his stance on the natural rights to which individuals are entitled. His opinion was popularized by the slogan, "free as in speech, not as in beer."

In the late 1990s after the development of the World Wide Web and HTML by Tim Berners Lee, an alternative movement, the open source movement, would gain legs. The open source movement was similar to the free software movement; its chief difference was the coining of language to make its philosophy friendlier to corporate entities in order to achieve buy-in (DiBona, Ockman, & Stone, 1999). Through the open source movement, the involvement of amateurs in the software process was more openly encouraged (Raymond, 2001). The open source movement's chief contribution to the

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growth of the blogosphere was the active espousing of a post 1990s market principle of software development that was designed to be less monolithic and more bottom-up as opposed to top-down and hierarchical (Benkler, 2004; Saveri, Rheingold, & Vian, 2005).

The result of this ethic was evident in the development of blogging tools and technologies that would allow the release of its source code, permitting amateurs to tinker and extend the tool's functionality to allow usages of the tool beyond that intended by the developer. These software principles form the foundation for the growth of blogging technologies. Many of these blogging technologies are powered by the open source language base LAMP: Linux (operating system), Apache (Web server), MySQL (database language), and Perl/PHP/Python (software languages that power the blogging applications). Blogging is just one of the many participatory applications that are powered by this new ethic in software development (Benkler, 2004, 2006).

Blogging software would also free personal publishing from the domain of the technically sophisticated, allowing the masses to contribute content to the Web without knowing programming languages. The trend of amateur Web publishing, facilitated by blogging, has become so aligned with the open source revolution that this particular form of journalism has been tagged "open source" journalism. This disassociation of the term open source from strictly code to stand for transparency and collaboration through community has enabled the spreading of the 'open source' term to systems and processes that encourage amateur contributions.

As a result of blogging, there is a new wave of excitement surrounding the Internet's democratic potential due to participatory technologies like blogs. Ito (2003) believes these participatory tools can further democracy by allowing for the growth of a "functional, more direct democratic system which can effectively manage complex issues." Using a concept called 'emergence' to describe the growth of a complex system

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through the collective actions of simple parts of the system, Ito sees the promise of technology in its ability to enable citizens to develop a more grassroots democracy through their ability to better "self organize to deliberate on, and to address complex issues democratically without one citizen required to comprehend and know the whole." Similar to this emergent democracy concept, Moore (1993) related the Internet and technologies that create global web-enabled initiatives to a second superpower, where deliberation "is done by each individual—making sense of events, communicating with others, and deciding whether and how to join in community actions." The second superpower is distributed and bottom-up in organization, flexible and agile in response to outside events and responsive to the individual wisdom of each person. Lebowsky and Ratcliffe (2005) refer to this new era of people-powered democracy by the label, "extreme democracy."

It is clear that the rhetoric surrounding the ability of blogs to inspire a more bottom-up democracy is saturated with utopian promise. Yet, to understand the excitement surrounding blogging technologies, one must connect blogging to the wider technological sophistication in the Web as a communications platform. This sophistication has created the fuel for this new trend in social media.

WEB 2.0, SOCIAL MEDIA, AND THE GROWTH OF BLOGGING

Social media is an umbrella term to describe such interactive and participatory technologies as blogs, podcasts, vlogs, wikis, social news aggregators, and social bookmarking services (Spannerworks, 2007). Though there has been widespread confusion on the meaning of the term, there are several agreed-upon characteristics that make media decidedly more social. Media is becoming more decentralized and distributed, enabling end-to-end networking or edge competencies (Umair, 2006) thereby

allowing those at the fringes and bottom of the network to participate in the creation and distribution of news. Content can now be syndicated through Web feeds or Really Simple Syndication (RSS), social bookmarking (sharing Web bookmarks or over Web), or through linking to content (Scoble, 2007). According to Hinchclife (2007), the power hierarchy is inverted as ordinary people now power social media systems as opposed to organizations. The result is a more decentralized network that puts power in the hands of many as opposed to few (Crumlish, 2004; Leadbeater & Miller, 2004; Surowiecki, 2005). This more open media system builds value by network effects through the increased connection and community afforded by a more interactive and responsive media (Benkler, 2006; Levine et al. 2000; Weinberger, 2002).

Social media is intimately connected to the idea that the Web and the applications that power it, are changing. Dubbed Web 2.0 by Tim O'Reilly (2004, 2005), Web 2.0 signals a shift in both the technologies that power Web applications and the Web, which has become a platform for participation in media, culture, and society. Web 2.0 embodies both a technological and a social shift in relation to the Internet. In relation to technology, Web 2.0 refers to both a style of software programming and a grab bag of design patterns and styles that enable more rapid and efficient Web application development. These patterns enable Web content to be syndicated, hacked, and remixed by the user. In relation to the social shift, Web 2.0 signals the use of the Internet to harness the collective intelligence of the masses through Web application design patterns that support the empowerment of the user (Hinchcliffe, 2005, 2006). The result of this new approach is the growth of applications that amass their value through the networked actions of the active public who create content for these sites.

Blogging as a Web activity continues to grow at an incremental pace. As of 2007, Sifry (2007a) noted that there were over 70 million blogs worldwide with 120,000 being

created worldwide each day. This growth has continued since Sifry, owner of *Technorati,* began aggregating blogs in his signature *State of the Blogosphere* reports (Sifry, 2007b). The growth in the blogosphere has continued both in terms of the public creating blogs and reading blogs. As it relates to readership, a 2006 Blogads blog readership survey found that the overall audience for blogs remains primarily males with high socioeconomic background. Lenhart and Fox (2006) noted that in 2006, approximately 39% of American adults claimed to have read a blog while 8% kept a blog.

The use of blogs by the American public is related to the increased adoption of the Internet as a political information source. Rainie and Horrigan (2007) noted that the usage of the Internet for political information has doubled since the 2002 US midterm elections. This growth follows a steady increase in the Internet as a political platform. The percentage of citizens who cited the Internet as one of their main sources of campaign news rose from 3% in 1996 to 11% in 2000 and to 21% in 2004, while the number of people who say they received any election news during the 2004 campaign election rose from 10% in 1996 to 30% in 2004 (Rainie, Horrigan & Cornfield, 2004). The usage of the Internet for political information grew from the 2004 presidential election: it was found that 37% of adults in the United States and 61% of online Americans used the Internet to get political news about the candidates (Rainie, Horrigan & Cornfield, 2004). Internet users also get information from political blogs: according to Rainie and Horrigan (2007), 20% of surveyed users in 2006 got their news and information about the campaigns from blogs. As of 2006, these authors estimate that about 6% of the nation's adult population or 13-14 million people use the political blogosphere for campaign information.

The political blogosphere is just one of the many content genres within the blogosphere. Interestingly, the political blogosphere has gained the most attention in

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traditional media circles in spite of the fact that it is not the most popular usage of the blog. Lenhart and Fox (2006) found that 37% of bloggers use the blog form for personal chronicling while only 11% use it for political blogging. Political blogs also tend to dominate attention in the blogosphere. Aggregators that rank popular blogs based on Web traffic and incoming Web links continue to cite political blogs as amongst the most popular in the blogosphere.

Little is known about the audience for political blogs. Graf (2006) found that political blog readers were primarily men in the 25-to-34 demographic of high socioeconomic and educational status. Graf (2006) also found that blog readers used the blog as an alternative news source to traditional media. In a separate study based on self-selection, Blogads (2006) found that Democratic and Republican blog readers shared similar demographic characteristics. Partisan blog spheres were most visited by males, of high socioeconomic and educational status, and in the age group 41-to-50. Readers of Democratic blogs were slightly more educated, with the majority possessing graduate education as opposed to the readers of Republican blogs who were primarily recipients of an undergraduate degree.

UNDERSTANDING THE HISTORY OF THE PARTISAN BLOGOSPHERE

The growth of the US political blogosphere is firmly connected to specific events in US political history. These events buttressed the growth of political blogging, providing a political platform for blogs to discuss public issues. These events, in tandem with the widespread development of free blogging software tools before 2000, helped to enable political blogging to find a US audience while propelling partisan political blogging into traditional media's gambit. Understanding how the political blogosphere has emerged and tracing its development to the current US political climate can help

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explain its growing connection to US political candidates, the traditional mass media, and to public opinion. Establishing the political blogosphere's role in online political activism can also help to explain how the political blogosphere has gained force as a significant player in modern US politics.

9/11 AND WARBLOGGING

Blogging became a more visible and widely adopted public platform in the US in the wake of the 9/11 attacks when the public sought political voice to express their growing concern with terrorism on home soil. This form of blogging in response to terrorism and war became known as war blogging (Cavanaugh, 2002). The growth of the US political blogosphere in response to terrorism was further deepened with the ensuing 2001 War in Afghanistan and the 2003 War in Iraq (Tremayne et al. 2006). Both wars extended the genre of war blogging to a debate on the pros and the cons of war on terrorism.

These two wars, in such close proximity, provide a clue as to why the political blogosphere is so stratified along red and blue lines. Interestingly, these wars provided a different motivation in fueling the growth of the conservative and progressive blogosphere. Bowers and Stoller (2005) note that in 2003, the conservative blogosphere was two to three times the size of the progressive blogosphere, with Instapundit, the conservative/libertarian blog run by Glenn Reynolds, then garnering a total number of traffic hits that exceeded the sum total of the five top progressive sites. The majority of these conservative blogs used the blog tool to express their support for the War in Iraq. On the liberal and progressive front, Chaudhry (2006) noted that early left-leaning bloggers used the blog form to critique both traditional media and the Democratic

establishment for their failure to critique US president George Bush in his case for the War in Iraq.

This difference in interpretation of political events would form the foundation for the punditry that would later be so closely associated with partisan political blogs. Blogs would continue to develop as platforms for interpreting real-world events as well as mass media news reports. Different interpretations to the same news event would continue to fuel the partisan blogosphere, providing the impetus for the fragmentation of the blogosphere into segmented issue publics joined together by shared political ideologies.

THE 2004 PRESIDENTIAL ELECTION

The growth of the political blogosphere is directly connected to presidential politics and the candidate Web site. Understanding the growth of the candidate Web site from a top-down, managed system to a more citizen-controlled vehicle provides one clue into the take off of the US political blogosphere. Additionally, understanding the fundamental connection between the usage of blogs and the growth of citizen interaction on candidate Web sites provides further evidence of the growing power of political blogs.

Before the 2004 presidential election, there was little serious attempt by US political candidates to actively engage citizens in interpersonal conversation online. Many trace the more mainstream adoption of the candidate Web site to the 1996 presidential election (D'Allessio, 2000; Klinenberg & Perrin, 2000); yet the interactivity offered by these Web sites was largely superficial (Stromer-Galley, 2000). Using the Internet for little more than "television on a computer screen" (Browning, 2002), presidential candidates used the medium as a vehicle for repurposing press releases, or 'shovelware.' Interactivity such as edited message discussion among online supporters (Klinenberg & Perrin, 2000) and trivia quiz interactivity was the norm. Stromer-Galley

(2000) suggested that candidates avoided interactivity because of the fear that it was burdensome, ambiguous, and unwieldy. This lack of citizen-candidate interactivity followed through to the 2000 US Senate election: though 88% of the 2000 senatorial candidates utilized a candidate Web site for political activity, engaging citizens was confined to such fund raising activities as campaigning/mobilizing, downloading candidate posters, buying candidate products, and volunteering (Browning, 2002).

Two notable exceptions to ineffective use of the candidate Web site for citizen interaction before 2003 are Jesse Ventura and John McCain. In the 1998 US mid-term elections, Jesse Ventura, a former professional wrestler who sought the governorship of Minnesota, was able to raise $50,000 of the $174,000 he gained in campaign contributions from the Web. In the next example, the 2000 presidential election saw John McCain raise in excess of $6.4 million in total online contributions, with an average contribution of $113 while only spending $300,000 on his Internet operations (Browning, 2002; Kamarch, 2002). However, as the two prior examples illustrate, before the 2004 presidential election, the primary success that political candidates gained from the Web was financial.

Howard Dean became the first presidential candidate to host a candidate blog on his candidate Web site. Among the many accolades awarded to the Dean campaign, Phil Noble of PoliticsOnline (2004) cited deanforamerica.com and Dean's first campaign manager Joe Trippi as among the top 10 individuals and organizations to be transforming politics. News reports highlight what many perceived to be Dean's legacy to online campaigning and the Internet political process. Dean was regarded as an agent of change through his use of the candidate Web site to campaign, organize, and fundraise (Alberts, 2004; Feldmann and Marlantes, 2003). Dean's campaign was also highly regarded for its ability to reinvigorate a disenchanted and youthful population while building powerful

grassroots support through net activism (Adair, 2004; Anderson, 2003; Franke-Ruta, 2003; Palser, 2003; San Antonio Express, 2003; Sharpiro, 2003; Smith, 2004; Webber, 2003).

Dean's direct connection to the liberal and progressive political blogosphere was established at the top ranks of his political campaign. Dean hired top political bloggers and Internet activists to take charge of his campaign. Noted Internet theorists and scholars such as David Weinberger and Howard Rheingold joined the ranks as advisors to Dean's campaign, as did social software and networking theorist Clay Shirky and copyright/intellectual property expert and Professor of Law at Stanford Lawrence Lessig. Popular political blogger Markos Moutlisas Zuniga from the left leaning liberal blog *The Daily Kos* was also active in Dean's campaign. Most popular among Dean's Internet experts was his first campaign manager Joe Trippi, who had prior experience working in Silicon Valley for open source technology start-ups. Trippi had also worked for the presidential campaigns of Edward Kennedy, Walter Mondale, Gary Hart, and Richard Gephardt. Trippi is currently working for the John Edwards, prior presidential contender and current presidential candidate for the 2004 and 2008 US presidency respectively.

Dean hired popular bloggers and top grassroots activists to take charge of other aspects of his campaign. Another innovation that would have a ripple effect in the 2004 presidential election was the usage of the candidate blog. Again, Dean's connection to the liberal political blogosphere would provide impetus for the latter's growth. Dean's deanforamerica.com blog was born on March 15, 2003, the brainchild of Matthew Gross, prior contributor for MyDD.com, a popular collaborative liberal political blog. The strength and success of Dean's blog was evident in its ripple effect as other Democratic presidential hopefuls recognized the importance of tapping the grassroots for viral message marketing. Former 2004 Democratic presidential candidate John Kerry and 2004

Democratic presidential contender John Edwards launched candidate blogs in October 2003. Wesley Clark, another 2004 Democratic presidential contender, hired Cameron Barrett. Barrett was one of the first US bloggers to establish a blog in 1997. George Bush, then US president, also developed a campaign blog in his reelection effort. Unlike the Democratic presidential candidates, Bush's blog did not allow citizens to comment on blog posts, leading Gross (Dean's blogger-in-chief) to declare, "Mr. President, I am a blogger. I know blogs. Bloggers are friends of mine. And your site, sir, is not a blog (Blog for America, 2003). This joke captures the relative popularity in 2004 of opening the candidate blog to citizen comments.

Dean also hired several political activists in a nod to citizen media and political blogs. Zack Rosen, nephew of noted mass communication scholar and public journalism intellectual Jay Rosen, was hired to build DeanSpace, an open source content management system. This system enabled open collaboration among all supporter Web sites and Dean's main candidate site, as well as facilitated shared calendars for group members, an online photo gallery, discussion forums, and blogs. Rosen, then a 20-year old lead developer, together with other young college students, formed the site hack4dean before deciding to get together and create a toolset for Dean as a "gift from the grassroots to itself."

The popularity of the candidate blog is evidenced by its ubiquitous usage in 2008 presidential politics. Currently, all Democratic and Republican contenders for their party's nomination host a blog on their candidate Web site.

WATCHDOGGING TRADITIONAL MEDIA

Political blogs pummeled into the US media spotlight as a direct result of their watchdogging of the press. This watchdogging has been very publicized, and there are

several examples of bloggers holding media responsible for inaccuracies, inconsistencies, and oversights in news reports. The slogan "we can fact check your ass," was popularized by conservative blogger Ken Layne to describe the active role that blogs play in holding mass media accountable for its stories. Similarly, the picking apart of mass media's news reports for inaccuracies was termed "fisking," popularized by once conservative-turned-moderate blogger Andrew Sullivan's line-by-line critique of Robert Fisk's (British journalist) dispatch from Pakistan where he describes being beaten by an Afghan refugee (Wikipedia, n.d.).

The strong resemblance between blogging and journalism, particularly opinion journalism, led to early debates pitting blogging against journalism. The differences between these two forms of writing are marked: unlike traditional journalism organizations with formalized ethics codes, bloggers resist any formal ethics code beyond personal boundaries (Dube, 2003; Kuhn, 2005). Many blogs lack a formalized structure for editing content, relying instead on readers to collectively edit after the blog content is posted (Rosen, 2003). Because of this lack of formal process in editing content, many blogs are able to rapidly respond to breaking news, synthesizing news reports and providing commentary in a manner faster than traditional media (Drezner & Farrell, 2004). Many bloggers possess no formal ambitions to be journalists (Blood, 2004; Lenhart and Fox, 2006); some become accidental journalists through recording first-hand news accounts of spontaneous events like natural disasters or terrorist acts because of being in the right place at the right time (Gahran, 2005; Meraz, 2006).

This active critique of mainstream news reports is one layer of glue cementing the strong relationship between the political blogosphere and traditional media. It is also one of the reasons that blogs are popularly viewed as alternative news outlets or citizen

journalism. Many of these active critiques of media reports are drawn along partisan lines.

POLITICAL BLOGGING AND MASS MEDIA

Political blogs have gained their reputation as avid critiques of the traditional mass media. Several watchdogging victories are attributed to the right-leaning blogosphere. The conservative political blog *FreeRepublic* provided the Web-based forum for a discussion of four memos that Dan Rather presented over the CBS News program *60 Minutes* in September 2005. These memos alleged to provide proof of President George Bush's preferential treatment in the National Guard (Humphries, 2004; Pein, 2005).

Conservative bloggers Hugh Hewitt and Charles Johnson of blog *Little Green Footballs* are credited with creating a 'blogstom' surrounding CNN chief news executive Eason Jordon's comments at the World Economic Forum that US troops were allegedly targeting journalists in Iraq (Abovitz, 2005; MacKinnon, 2005b). Conservative bloggers have also been credited with setting the media's agenda by forcing journalists' attention to John Kerry's record during and after his service in Vietnam (Media Matters for America, 2004). These bloggers worked hand-in-hand with the political pressure group, The Swift Boat Veterans For Truth (SBVT), to create strong attention in the traditional mass media over Kerry's disenchantment with Vietnam.

Many left-leaning blogs have also held the mass media accountable for its news reports. Political bloggers Joshua Micah Marshall of *Talking Points Memo,* and Duncan Black of *Atrios* are widely considered to be responsible for drawing mass media's attention to Senator Trent Lott's controversial statements at Strom Thurmond's birthday party. Lott said that the US would have been better off if Thurmond, a prior

segregationist candidate for the breakaway Dixiecrat Party, won the 1948 presidential election against Harry Truman (Edsell & Faler, 2002; Mercurio, 2002). The role that blogger Marshall played in the eventual resignation of Lott led Paul Krugman of the *New York Times* to declare that Marshall's blog, "is must reading for the politically curious, and who, more than anyone else, is responsible for making Trent Lott's offensive remarks the issue they should be" (Kennedy School of Government, 2004).

Left-leaning political bloggers also drove mass media's attention to the alleged secret identity of Jeff Gannon, a former *Talon News* reporter, who was given a press pass to attend White House press conferences (Kennedy, 2005). *Americablog* exposed this White House reporter to be a male prostitute. It is said that left-leaning bloggers at *FireDogLake* ran circles around the big media dogs during the trial of Scooter Libby while Josh Micah Marshall of *Talking Points Memo* directed the blogosphere's attention to former Attorney General Alberto Gonzales until his resignation in August 2007 (Harnsberger, 2007). Liberal blogs are also said to be responsible for Virginia Senator George Allen's reelection loss due to their widespread circulation of a video in which he called a man of Indian descent 'macaca' (Bacon, 2006).

A complicating layer in the relationship between the political blogosphere and traditional mass media is the fact that several political bloggers were once journalists. For example, political blogger Sullivan, conservative blogger turned moderate, was editor at *The New Republic.* Blogger Marshall once worked for *The American Prospect,* and blogger Mikey Kaus wrote for *The New Republic* and *Newsweek.* Ironically, many bloggers have traded outside status as amateur journalists (a point of pride) for the professional newsroom, joining the institutions they once actively criticized as independent bloggers. Andrew Sullivan affiliated his *The Daily Dish* blog first with *Time Magazine* and as of 2007 with *The Atlantic Monthly.* Ann Marie Cox, prior blogger for

Wonkette, now works for *Time.com.* Kevin Drum, once known as Calpundit, now blogs for *Washington Monthly.* Glenn Reynolds, conservative blogger for the popular blog *Instapundit,* blogs for *MSNBC* and *Tech Central Station.* In March 2006, *The Washington Post* hired 24-year old Ben Domenech, conservative blogger for *RedState.org*, to blog under a new blog titled *RedAmerica.* His hire was short lived as left-leaning bloggers exposed Domenech's past plagiarism proclivities. In the end, the *Washington Post* fired Domenech after repeated calls for his resignation from the left-leaning blogosphere.

The once tenuous relationship between journalism and blogging has slowly developed to a partial embrace and many traditional mass media newsrooms now host blogs on their online sites. Before 2004, it was common for professional journalists to be fired for owning a personal blog. In 2002, Stephen Olafson, ex-reporter of the *Houston Chronicle*, was fired for critiquing his newspaper under a pseudoname through his personal blog. In 2003, Dennis Horgan of *The Hartford Courant* was ordered to desist from having a personal blog, but was allowed seven months later to blog under the newspaper brand name. Eleven days after he set up his blog on March 9, 2003, CNN employee Kevin Sites was forced to suspend his blogging entries from Iraq. However, as of 2006, the majority of US newsrooms experiment with blogging in one form or another (Chang et al. 2006), though it is not uncommon to see reporters still being fired for inappropriate usage of a personal blog (Maschitti, 2006).

There is a growing body of evidence to support the theory that traditional media routinely depend on the most popular blogs for information, interpretative frames. The 11th Annual Euro RSCG Magnet Survey of Media (Euro RSCG Magnet, 2005), conducted with the participation of Columbia University, found that though less than 1% of journalists trust blogs, over 50% of them depend on blogs for free and unacknowledged source material in news reports, and over 28% use blogs on a day-to-

day basis. Drezner and Farrell (2005) surveyed 140 editors, reporters, and columnists, finding that newsrooms made routine use of elite blogs in their news reports. Herring, Kouper, Scheidt and Wright (2004) found that traditional media depended on primarily elite bloggers for all topical categories of news articles in their reportage. Analyzing various news reports, Meraz (2008) found occasional use of blogs for source material in mass media news stories: in surveying blogers' reaction to the Samuel Alito Supreme Court Justice confirmation hearings, Meraz (2008) found that the *New York Times* quoted 29 bloggers (New York Times, 2006a). Twenty-two bloggers' opinions were published in the *New York Times* in reference to the blogosphere's response to the jailing and testimony of *New York Times* reporter Judith Miller.

Few actual studies have been conducted on blogs' dependence on mass media. Reese, Rutigliano, Hyun, and Jeong (2007) found through hyperlink analysis that bloggers linked primarily to traditional media: over 40% of links were directed to the newsrooms that bloggers call so affectionately 'mainstream media.' Most bloggers, lacking the professional status of a traditional media journalist, do not possess a press pass and as such, cannot gain access to many bureaucratic sources. Yet, as will be outlined in the following section, the growth of the progressive blogosphere and the changing dynamics of the blog form necessitate a reassessment of the central premise that blogs are primarily opinion makers and not first-hand reporting tools.

NETROOTS AND THE RISE OF THE PROGRESSIVE BLOGOSPHERE

Many trace the growth of the new progressive blogosphere to the emergence of Moveon.org, an organization formed when two Silicon Valley entrepreneurs circulated an online petition demanding that Congress censure President Clinton and 'move on" as opposed to impeaching him (Bacon, 2006; Stoller, 2007). In 2000, such sites as *Media*

Whores Online, Bartcop, and *Talking Points Memo* provided a jumpstart to the progressive blogosphere. In 2000, the failure of Democratic elites saw Howard Dean rise with his emphasis on anti-war rhetoric. Alongside Dean's rise was the parallel creation of the progressive activist blogosphere with such blogs as *The Daily Kos* and *Atrios.* It has been noted that one of the key trigger events for the new progressive movement in the blogosphere was when traditional media failed to cover the egging of George W. Bush's limo by throngs of protestors during his 2004 presidential coronation, preferring instead to provide coverage of him walking the parade route on a 'safe to disembark' side street (Harnsberger, 2007).

Current traffic statistics suggest that the progressive blogosphere is leading the conservative blogosphere. This growth is currently measured by comparing the most popular liberal blog, *The Daily Kos,* with the once very popular conservative blog, *Instapundit. DailyKos*—a site in existence for 3.5 years—now has 3.7 million readers each week, a figure in excess of the top 10 opinion magazines (Wallace-Wells, 2006). *The Daily Kos* is said to outrank *Instapundit* by a factor of four to one (Siegal, 2006). Bowers (2007) notes that the progressive blogosphere began to gain attention in 2002 when it exposed the racist remarks of Trent Lott at Strom Thurmond's 100th birthday party. In the final four months of 2002, *The Daily Kos* garnered 425 front-page Web hits in comparison to 2327 in the final four months of 2006. In fact, more than two-thirds of the Web sites in the Liberal Blog Advertising Network, a network formed to sell advertising on heavily-trafficked liberal blogs, were yet to be founded in 2002.

The growth of this new fringe of the liberal blogosphere, termed the new progressive movement, is often referred to by the term 'netroots.' Markos Moulitsas Zuniga and Jerome Armstrong are popularly conceived as the coiners of the term netroots during the time when they both worked for the liberal political blog *MyDD.com.* The

term is now synonymous with the rise of progressive politics and the organizing of grassroots activisim through such avenues as email, bulletin boards, RSS feeds, and blogs.

In terms of demographics, the progressive netroots are considered to be older, high consumers of news media, extremely well educated, and extremely politically active (Blogads, 2006; Bowers, 2006a; Bowers, 2006b; The Pew Research Center for the People and the Press, 2005). Acccording to Moulitsas Zuniga and Armstrong (Chaudhry, 2006), netroots signals the beginning of "comprehensive reformation of the Democratic Party" fueled by "online activism on a nationwide level" coupled with "offline activists at the local level."

Blogs are one of the vehicles for netroots activism. Some see netroots as generational politics (Bowers, 2007; Golis, 2007; Stoller, 2006, 2007). MrLiberal (2007), the handle (name) for a contributing writer to the left-leaning blog *The Daily Kos*, named July 19, 2004, as Blogosphere Day, a day marked for the role that progressives played in fundraising for Democratic candidates. Bacon (2006), who refers to the netroots as the "equivalent of a punk garage band—edgy, loud, and antiauthoritarian," noted their influence in the primary defeat of Joe Lieberman in Connecticut to Ned Lamont, a defeat that led to Lieberman registering as an independent.

Blogs like *The Daily Kos* and *MyDD.com* have been successful in helping such candidates as Ben Chandler, Stephanie Herseth, and Virginia Schrader raise money over the Internet. Writing of *The Daily Kos's* involvement in Schrader's campaign, Farhad Manjoo (2004) of *Salon* magazine, noted "thanks to blogs and the Internet, we now live in an age when news can be translated into action—into money—in no more than the time that it takes to post a paragraph online." Progressive political bloggers at liberal blogs *The Daily Kos* and *MyDD.com* advertise on ActBlue, the online clearinghouse for

raising financial contributions for Democratic candidates. As of August 30, 2007, progressive blogs that sponsor Netroots candidates registered 14,443 donors raising a sum total of $1,544,089.15.

The power of Netroots is ultimately epitomized by the annual YearlyKos convention, a gathering of the new progressive base. As previously mentioned in Chapter 1, YearlyKos is an event that captures the attention of the blogosphere, traditional media, and the Democratic political establishment. The YearlyKos convention will change its title to 'Netroots Nation' in 2008 to reflect the inclusivity of progressive Web sites and organizations in the building of a more grassroots structure to political power (Yearly Kos Convention, n.d.). Moulitsas Zuniga, founder of *The Daily Kos,* who has been dubbed "the new kingmaker" in US political circles, is considered the ultimate symbol of the netroots (Chaudhry, 2006). Moulitsas Zuniga's power in Democratic circles is evidenced by his standing phone calls with the Democratic establishment, and he is often used to recruit Democratic political candidates (Wallace-Wells, 2006).

The political blogosphere has been slowly changing with the growing power of political blogs in US politics and in traditional mass media circles. This change has been particularly marked in the progressive blogosphere. As Stoller (2007) has pointed out, the early progressive blogosphere was run by an individual blogger who was independent of established media and worked on his/her blog as a hobby. Community was limited in progressive blogs before 2002 and original reporting and research were a rarity.

Stoller (2007) points out that the new progressive blogosphere is defined by more mature characteristics. As opposed to individual blogging, group blogging is more popular as evidenced by such blogs *as Huffington Post, DailyKos, Crooks and Liars, TPM Café, Think Progress, FireDogLake, AmericaBlog and BooMan Tribune,* to name a few popular progressive blogs. Many blogs are now institutionally based through

connections to advocacy groups and partisan committees. As opposed to blogging on a part-time basis, many bloggers are now professionals, blogging on a full-time basis. Many blogs now employ open source technologies such as Scoop and Drupal to allow communities to create more content on the blogs.

Several of these group-based progressive blogs, fueled by more manpower, are now branching out to engage in many forms of professional journalism. Stoller (2007) notes that this new trend of progressive blogs engages in:

investigative reporting, live reports from major political events, on the ground reports from campaigns in all fifty states, professional-grade election analysis, heavy-duty fundraising, whip counts on major legislative campaigns, the commissioning of independent polls, interviews of prominent political figures, the lobbying of elected officials, comprehensive analysis of government documents, dishing out of inside gossip, running for public or party office, writing books, recruiting candidates, and many forms of non-financial direct activism.

These changes have led Stoller (2007) to claim that the progressive blogosphere has a "short head," with only a few blogs being responsible for the majority of Web site hits. This phenomenon, common to many published network studies of the blogosphere, has also been found in the conservative blogosphere and in other World Wide Web network communities. Attention to this characteristic "short head" of the political blogosphere will be given in Chapter 5 when the applicability of social network analysis will be explored in relation to this current study.

POLITICAL AFFILIATION IN THE BLOGOSPHERE

This dissertation focuses on the study of political blogs across the ideological spectrum. For this study, blogs are categorized into the broad political affiliation of left-leaning, right-leaning, and moderate blogs. It is important to point out that this categorization provides for a spectrum of ideological positions. For example, the blogs *Daily Kos* and *MyDD.com* are considered part of the new progressive movement. This movement is often characterized by being "far left," by those bloggers that identify more with right-leaning politics. Similarly, right-leaning blogs also adopt a variety of political stances. For example, *Instapundit* is run by Glenn Reynolds who is libertarian; yet, he identifies with conservative politics. The moderate blogger Andrew Sullivan of *Daily Dish* was once a highly conservative blogger; however, his stringent criticism of the current US president George Bush and his identification with many left-leaning causes has resulted in his status shift to more of a moderate blogger.

Though there is a spectrum of ideological positions, it is clear that this spectrum supports partisan divisions along left-leaning and right-leaning lines. It is common for the right-leaning blogosphere to call their left-leaning counterparts "nutroots" or "moonbats." Similarly, the left-leaning blogosphere has also coined derogatory names for blogs that identify with right-leaning politics; some of these names include "freepers" and "wingnuts." It is common to see this terminology utilized on a day to day basis in the discourse between left-leaning and right-leaning bloggers. These names suggest that cross-partisan dialogue is often characterized by strong negative overtones.

THE STATE OF BLOG RESEARCH

Though the academic field, particularly the mass communication field, was slow to respond to scholarly research on blogging, the past two to three years have yielded a prolific output on several facets of blogging. When this research is connected to related

interdisciplinary fields that also examine the impact of social networking on politics, culture, and society, it becomes clear that academia has recognized the significance of this new, peer-produced, and amateur production of information and news. The bottom-up, networked, and distributed nature of this content production, evidenced through such early applications as Epinions, Amazon, and Craigslist, and now burgeoning with blogs, wikis, and social networking software, points the way towards a new participatory culture that impacts all facets of society. As such, it behooves us as communication scholars to examine the relevancy of these new media forms as they continue to morph and grow into fuller, more mature dimensions.

A quick survey of related research on blogs across the communication field and related disciplines reveals noticeable trends in research. Some studies focus on the characteristic forms of blogging genres and their differences to traditional journalism (Blood, 2000, 2002a, 2002b; Cavanaugh,, 2002; Halavais, 2002; Herring, Scheidt, Wright & Bonus,. 2005; Krishnamurthy, 2002; Wall, 2005; MacDougal, 2005). Many of these studies define blogging through focusing on its practice as reflected in writing style, tone, and hyperlink features. Krishnamurthy (2002) proposed a classification of blogs based on whether it was personal or topical or individual or community-based. Blood (2002a) distinguished three main types of blogs: personal (about the blogger); filter (hyperlinked entries directing the reader to outside content); and notebook (longer, focused essays). These early studies by Krishnamurthy (2000) and Blood (2000, 2002a, 2002b) formed the basis for classifying blogs based on the blog style adopted by the author.

As the early forms of blogging became pitted against traditional journalism, momentum was garnered for research on blogging's impact on journalism. Some studies examine the impact of blogs on the traditional journalistic activity (Matheson, 2004; Lowrey (2006). Singer (2005) conducted a content analysis of 20 blogs in politics and

civic affairs, finding that journalists were more prone to link to traditional media outlets, leading Singer to declare that journalists were "normalizing" the blog form. Robinson (2006) conducted a textual analysis of journalism blogs, finding that when j-bloggers blog, they write as if attempting to recapture journalism authority online. Few studies have been conducted from the audience perspective: one notable study found that blog readers viewed blogs as more credible than traditional media (Johnson & Kaye, 2004).

A variety of studies focus on the role of blogging in US politics. Lawson-Borders & Kirk (2005) examine the general effects of changing campaign communication with the advent of more interactive-style Web politics, while Kahn and Keller (2004) provide a general articulation of blogging's impact on politics. Though not centrally concerned with blogs, Gronbeck and Weise (2005) note that the Internet has repersonalized politics, drawing candidates, parties and citizen into a tighter web of connections. Meraz (2006) examined the nature of political conversation on the Howard Dean candidate blog, finding that the blog served as a place for supporters to self organize, endorse their candidate, and discuss image attributes about the candidate as opposed to a place for diverse interpersonal opinion sharing and issue discussion. Trammell, Williams, Postelnica and Landreville (2006) assessed the Web sites and blogs of the 10 Democrats vying to be the Democratic candidate for the 2004 presidential election, finding a progression in technological capability and interactivity as it pertained to their online campaigning strategies. In another study, Trammell (2007) examined candidate campaign blogs and their relationship to youth voting.

Some studies are specifically concerned with the impact of the more elite or popular blogs. Scott (2006) examined the blog posts of the top four political blogs during the 2004 presidential election from the vantage point of the sociological news functions in an attempt to answer whether bloggers are journalists. Trammell and Keshelashvili

(2005) examine the elite "A-list" blogs (a phenomenon which will be explored more in chapter 5) for their impression management techniques, finding that elite bloggers are more prone to reveal information about themselves in a conscious attempt at impression management. Using six of the most popular news outlets and blogs, Reese et al. (2007) found that close to half of all links point to professional news organizations, while citizen media links totaled less than 35%.

Few studies examine the agenda setting dynamics of blogs. In one of the only studies to date, Cornfield, Carson, Karlis, and Simon (2005) found that the agenda setting relationships between media and blogs were reciprocal, but that media had a greater agenda setting impact on blog agendas than the opposite relationship. In related areas of mass communication theory, little published work to date exists on the influence of related mass communication theories such as the two-step flow as a relative complementary or competing theory to agenda setting.

A few studies position themselves as network analysis studies through an examination of the hyperlink structure of blogs. Many of these studies examine how the blogosphere stratifies into issue publics, often along political partisan lines, as a result of conscious hyperlinking decisions by bloggers. Many studies confirm that the political blogosphere is stratified along partisan lines (Welsh, 2005; Adamic & Glance, 2005; Meraz, 2005). However, several studies also point out that the political blogosphere is not entirely insular in its linking practices. Though Reese et al. (2007) found evidence of insularity, there were strong signs of non partisan linking. In a study of credentialed bloggers attending the 2004 Democratic and the Republican national conventions, Meraz (2004) found that elite bloggers of both right and left leaning perspectives found no difficulty in being linked to from bloggers of different ideological perspectives. This tendency for partisan political blogs to support a certain degree of diverse conversation,

as evidenced through hyperlinking, leads Tremayne et al. (2006) to conclude that "there is at least a place in the middle where ideas can be debated."

Few studies have combined traditional mass communication theory with the interdisciplinary theory of social networks. Furthermore, few studies have examined non elite blogs, particularly the impact of moderate, non-partisan blogs, on the networked dynamics of social influence and information dissemination.

This dissertation concerns itself with the agenda setting dynamics of blogs and media, as well as the effect of social networks on the flow and transference of information among blogs as well as between blogs and the traditional mass media. This dissertation examines blogs across the ideological spectrum from left-leaning, to moderate, to right-leaning blogs. As the following chapters detail the theories of agenda setting, the two-step flow, gatekeeping, and social network analysis theory, this dissertation seeks to establish the importance of both current mass communication theory and related interdisciplinary theory to the study of networked politics.

Chapter 3: Mass Communication Theory and Networked Politics

With the unabated growth of participatory Web technologies, it has often been questioned whether existing mass communication theory is relevant to the study of online media. The idea that new theory must be framed to take account of the interactivity and two-way communicative potential of new media is not new. It is evident that communication and technology scholars make use of a large body of interdisciplinary theory to explain how the unique characteristics of online media impact politics, culture, and society (Walther, Gay, & Hancock, 2005). However, an important goal of the new media mass communication scholar must be to examine how preexisting mass communication theory applies to the new interactive Web environment. This dissertation seeks to make use of some of the existing mass communication theories in an effort to explicate their relevancy in the new media political environment. Moreover, this dissertation examines the usefulness of these theories and the constraints on their applicability in the networked political blogosphere.

AGENDA SETTING

McCombs (2004) summarizes the growth of agenda setting from a parsimonious hypothesis about the transfer of issue salience from the media's agenda to the public's agenda in presidential election settings (McCombs & Shaw, 1972; Shaw & McCombs, 1977; Weaver, Graber, McCombs & Eyal, 1981) to one that now encompasses several broad traditions across geography, culture, and disciplines. Agenda setting was born in a mass communication climate dominated by the prevailing sentiment that the mass media had limited effects and that people were more prone to selectively pay attention to content based on their preferences (Klapper, 1960). The debunking of the minimal role of

media and selective perception was one of the most significant accomplishments of the early theorizing of agenda setting, which re-established the significance of the mass media in shaping public opinion at the cognitive level.

From its earliest beginnings, agenda setting has systematically sought to document the effects of mass media on public opinion. Its basis exists in the simple fact that, for most issues, the public lacks the ability to witness accounts firsthand and as such, must depend on the media for a second- hand reality (Lippmann, 1922). This second-hand reality is firmly based in a pseudo-environment that is created by media attention to specific issues that may or may not have a basis in real-world dynamics. By virtue of creating a shared, national pseudo-environment, mass media fulfill the important function of building a public consensus on the important issues of the day (McCombs, 1997).

McCombs (2004) provides a representative sample of strands of agenda setting research across the geographical and cultural map, providing ample evidence of the mass media's ability to set the public agenda in various countries and scenarios outside public opinion research. According to McCombs (2004), there are over 400 empirical investigations worldwide of agenda setting, a figure that has noticeably increased from earlier figures that put the tally of agenda setting studies at 300 (Dearing & Rogers, 1992; Graber, 2000; Lang & Lang, 1983). To date, agenda setting remains one of the most enduring and most researched theories in mass communication and political communication when compared to other theories such as framing, cultivation theory, and diffusion research (Bryant & Miron, 2004). Since its first appearance in 1972, agenda setting has now matured as a theory to include a second-level agenda setting component (attribute agenda setting), a psychological component to explain individual-level agenda setting effects (need for orientation), an emphasis on how the media's agenda is shaped, and an explanation for the shared news agenda among different media (intermedia agenda

setting). The maturation of the agenda-setting theory could explain Weaver's (2007) findings on the leveling off of academic publications that use agenda setting as a theoretical device.

To understand the relevancy of agenda setting to this current study, it is necessary to examine the prevailing two-step flow counter-theory that was prevalent before McCombs and Shaws' initial 1968 Chapel Hill study. Both agenda setting and the competing theory of the two-step flow are significant when discussing the relationship between mainstream media and political blog networks, as well as the relationships that exist among blogs in the networked political blogosphere.

TWO-STEP FLOW

The two-step flow theory injected interpersonal communications into how information diffuses from mass media to the general public. The usefulness of this mass communication theory to the political blogosphere is captured by the hyperlink, which is a symbolic representation of an interpersonal connection between two blogs. When it was initially formulated, the two-step flow theory was not only concerned with media effects on information levels but on attitudes and behavior. The initial conceptualization of the model was based on traditional media and face-to-face communications, occurring before the revolution of online communications.

The Bureau of Applied Social Research (BASR) of Columbia University undertook the bulk of the initial studies that conceptualized the two-step flow process. Many of these studies were concerned with assessing the significance of interpersonal relationships in communication research, revising the idea that the public was a mass of atomized, disconnected individuals (Friedson, 1953). Alternatively, individuals were perceived as connected. In this new scenario, the social structure of relationships was

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significant to the process and formation of opinions (Riley & Flowerman, 1951; Riley & Riley, 1951) such that this underlying social structure could be seen as intervening or intercepting between mass media messages and the individual (Katz, 1960). The disconnection implied by seeing the audience as a mass was now reconceptualized into a vision of a society connected by those more knowledgeable, who were dubbed the "opinion leaders." These opinion leaders or influentials were responsible for shaping the opinions of those more susceptible to influence, called the 'followers.' This mediation of mass media messages by the opinion leader would be called the 'two-step flow of communication' and this theory would form the basis of the law of minimal consequences that relegated mass media effects to an inconsequential level (Klapper, 1960).

The two-step flow was first introduced by Lazarsfeld, Berelson, and Gaudet (1948) in the context of the 1940s voting choices in Erie County, Ohio. Using a random survey method and adopting a panel design, this study found that personal influence was more significant to voting decisions than mass media, notably for those individuals who changed their minds during the course of the campaign. Katz (1957) noted that this initial study had three major findings. Personal influence was strongest among politically homogenous groups and had the greatest impact on those individuals who made up their minds late in the campaign or on those who changed their minds during the course of the campaign. The flow of personal influence was from the opinion leader to the follower, and the opinion leader was found at all social strata levels. A final set of findings concerned the usage of mass media by the opinion leader, with the opinion leader being more exposed to all mass media, particularly radio, newspapers, and magazines.

This study suffered from the fact that opinion leaders were identified by self designation. Little to no empirical evidence was presented to prove that information

actually flowed from opinion leaders to followers. The study did not tackle the competing idea that information flowed among opinion leaders. Finally, this study did not dispute the relevance of the media in informing the public on a cognitive level. It is within this hazy empirical climate that the two-step flow theory of communication was born, a theory that held sway for several years such that the influence of mass media on public opinion was considered marginal.

The power of the two-step flow of communication was cemented by the publication of several related studies from the BASR at Columbia University These studies later documented the added significance of a more knowledgeable and influential public persona called the opinion leader (Berelson, Lazarsfeld, & McPhee, 1954; Katz, & Lazarsfeld, 1955; Merton, 1949). Merton (1949) conducted a study in Rovere, New Jersey, improving on the earlier Erie County, Ohio study, through identifying opinion leaders based on the testimony of four different individuals. Unlike the former study by Lazarsfeld and colleagues, interviews were also conducted with the opinion leader. Yet, this study had its own failings: it neglected the role of the follower or advisee, thus divorcing the study of opinion leadership from its dyadic social structure.

The Elmira study was based on the 1948 election campaign (Berelson, Lazarsfeld, & McPhee, 1954). Revealing more about the characteristics of opinion leaders, the Elmira study found that opinion leaders were found at every socio-economic and occupational level, with interpersonal conversation occurring between individuals of homogenous demographic and social levels. Opinion leaders belonged to more external organizations, making them more cosmopolitan and worldly in knowledge, and as it related to demographics, opinion leaders were generally men.

One year later, Katz and Lazarsfeld (1955) published their findings on face-to-face communication in Decatur, Illionis, revealing that public affairs opinion leaders had

a higher competency in public affairs information, higher social status, and were more gregarious (Troldahl & Van Dam, 1965-1966.). Opinion leadership was examined through such consumer realms as marketing, movie-going, and the fashion industry, as well as in public affairs. The authors noted that opinion leadership in one sphere did not determine leadership in another. Similar to the previous studies, the Decatur study found personal influence to be more significant than mass media in the changing of decisions. The Decatur study improved on Merton's (1949) study by conducting interviews with both individuals in the dyadic relationship. This study also indicated chains of influence longer than that of the dyad, and emphasized the importance of social structure and time in the examination of influence between opinion leaders and followers.

Tracing the relationship of the two-step flow of influence to the diffusion of innovations, Coleman, Katz, and Mendel (1957, 1966) traced the diffusion of drug innovations among the entire medical community of a particular area. These studies established the significance of social relations in the adoption of new drugs using both the doctor's testimony about social influences as well as the audit of the doctor's prescriptions on file at the local pharmacies of the cities studied.

These five studies formed the basis for discrediting the impact of media effects on the general public (Lang & Lang, 2006). The two-step flow theory of communications would also exert influence in the diffusion research field. Diffusion of innovations refers to how ideas and practices spread both within and between communities (Rogers, 1995). From the initial diffusion publication in 1942 by Ryan and Gross that identified social contacts, social interaction, and interpersonal communication as influences in the adoption of new behavior, hundreds of studies on diffusion have since ensued (Valente & Davis, 1999). As Rogers (2003) has noted, opinion leaders are responsible for the diffusion of an innovation, tending not to be the early adopters but the ones who steer the

innovation through the network. Yet, there is disagreement as to whether the opinion leader is an early adopter or a later convert to a new innovation (Burt, 1999)

This dissertation focuses on popular political blogs, and the political bloggers that write for these sites can be viewed as opinion leaders. But, what are the characteristics of opinion leaders? Katz (1957) identified opinion leaders based on three attributes,: 1. the personification of values (who one is), 2. competence (what one knows), and 3. strategic social location (whom one knows). Weimann (1991) utilized the Strength of Personality Scale developed by the Allensbach Survey Center in Germany to identify opinion leaders as influentials who hold unique characteristics due to strong personal traits and advantageous network positioning. Developing a typology of leadership based on a national sample from the 1966 election study conducted by the Survey Research Centre at the University of Michigan, Kingdon (1970) found that opinion leaders in the electorate had higher formal levels of education, were white and male, ranked higher in levels of political efficacy, had greater interest in the campaign, higher concern about the outcome of the election, and were better informed than non-leaders in the same occupational and educational strata. Opinion leaders also appear more cosmopolitan than followers, possessing more contacts and social capital than other group members; as such, opinion leaders have access to better quality information than other group members (Roch, 2005). They are able to broker information both within and between groups by virtue of their social capital, which allows them to fill the gaps in information and connection between people, bridging what Burt calls 'structural holes' (Burt, 1999). Shah and Scheufele (2006) found a strong positive relationship between opinion leadership and civic participation after parsing out the effects of demographic and dispositional variables. These authors also found that "cosmopolitan dispositions, self assured dispositions, and innovation dispositions all made individuals more likely to be

deemed opinion leaders," providing a guiding light to the social roots of opinion leadership.

This dissertation is also concerned with the relationship between popular political bloggers and traditional media. Since opinion leaders are said to broker information, a large body of literature has been concerned with the attention that opinion leaders pay to mass media. Most findings highlight that opinion leaders pay more attention to news and a have greater connection to the outside world than followers. However, several studies have found that opinion leaders concentrate their exposure on the printed word as opposed to television news (Levy, 1978; Lin, 1973; Robinson, 1976). Levy (1978) found that if television news was used by opinion leaders, it was used for cognitive orientation. In examining the spheres of influence for opinion leaders, Trodahl (1966-67) suggests that opinion leaders might seek information from professional intermediaries who are more knowledgeable than themselves as opposed to the mass media and that followers seek advice from opinion leaders. Robinson (1976) found that opinion leaders paid more attention to specialized media and were more inclined to attend a political rally or be involved in political activities. Shah and Schufele (2006) found that opinion leadership was positively related to television hard news use, but they failed to find a positive correlation with newspaper hard news use.

This dissertation focuses on the varied interrelationships between political bloggers of diverse political orientations. The usefulness of the two-step flow to this study has been enhanced by the revision of this theory to sustain multiple flow relationships. Several researchers have suggested modifications to the two-step flow of communication to take account of different structural positions of members within the network. These modifications create many more paths to the flow of information aside from just the advisor and the advisee.

Weimann (1982, 1983) addresses the issue of marginal network positioning and of its importance to the two-step flow of communication. According to Weimann (1982), marginal or less elite individuals in a network serve a bridging function, passing information among intergroups through connecting to other marginally connected individuals within different groups. Due to intransitivity of marginals, a notion that if an individual A is connected to individual B and B to C, then A is not connected to C, marginals are structurally positioned to introduce new information to a group. In sharp contrast, centrals, or those elite members of a network, are more efficient within intragroups, exerting influence on how information diffuses within the group as opposed to being paramount in the flow of new information from outside the group. Marginals are depended upon by centrals to speedily import information within a group, while marginals depend on centrals to spread that information to the group once it is imported by them. Marginals also have low multiplexity or less dense relations with others, resulting in a more expansive set of intergroup relations and less segmentation (Weimann, 1983). Due to the lack of intensity in the tie strength, marginals function as information carriers since marginals do not share other forms of interaction.

Research also suggests that the idea of opinion leadership implied by the two-step flow might be less effective in understanding the flow of information when compared to opinion sharing among elites or opinion leaders. As opposed to opinion seeking, evidence has been found to suggest that opinion giving is more of a reciprocal behavior and that opinion leaders compare opinions on major news topics with those who are just as active or knowledgeable as themselves (Troldahl & Van Dam, 1965-66). In a study of the 1968 election database by the Center for Political Studies at the University of Michigan, Robinson (1976) found that that 68% of opinion givers also received opinions in comparison to a 26% receiving rate among those who had not given opinions.

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This dissertation seeks to uncover the relative roles of interpersonal communication and mass media agenda setting influence as it relates to information flow within the political blogosphere. Interestingly, scholars have revised the two-step flow to take account of both mass media influence and interpersonal conversation influence. These two influences are non-competitive through creating a separation between an informational effect and a behavioral effect. Troldahl (1966-1967) suggests that opinion leaders may initiate the second-step flow, influencing attitudes and behaviors as opposed to the learning information, which is more of a one-step flow from the media to the public. In other words, media effects is more of a one-step flow at the cognitive level while opinion leaders provide the two-step flow through influencing beliefs, attitudes and behavior.

The idea for this second step flow arises from Balance Theory (Heider, 1946; 1958; Newcomb, 1953), a theory that explains opinion change based on the psychological stress of confronting opposing beliefs and opinions. If an individual is exposed to inconsistent messaging from the mass media, it is possible that he or she may wear the hat of the follower and seek information from an opinion leader in an effort to reduce the imbalance condition. He or she may achieve balance either through the changing of his or her present dispositions or through the active rejection of media content (Lin, 1973; Troldahl, 1966-67). Put another way, it is possible that the mass media's influence is more pertinent in the early informational phases while personal influences are significant and more effective in the later phases of deliberation and decision making (Katz, 1960). Adopting this two-tiered view of media effects and interpersonal communication effects can lead to less of a competition and more of a complementary view of both interpersonal relations influence and mass media influence. In a similar vein, Lang and Lang (2006) noted that the media can create the symbolic environment for interpersonal conversation

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to arise. Mass media messages provide the first step such that without them, there may never be a second step.

But, how effective is this theory in explaining the connections within the networked political blogosphere? More current research on the two-step flow has attempted to refashion the theory to take account of the new technological environment. Bennett and Manheim (2006) noted that the two-step flow can be more effectively described as a one-step flow when discussing technologies that empower the audience to personalize the media message. According to Bennett and Manheim (2006), "the combination of social isolation, communication channel fragmentation, and message targeting technologies have produced a very different information recipient than the audience members of the Eisenhower era" (pp. 215). These authors noted that the communication process is now aimed at the individual member such that the group context functions as an affirming echo chamber as opposed to a social cueing system. He sees a decline in what he calls the "social membership society" giving way to the rise of a "lifestyle network society" which obviates the need for an authoritative opinion leader. Niche media enable individuals to be more in control of their own emotional and cognitive realities such that there is less need for the mediation of peer groups. In such a scenario, it is conceivable that individuals turn directly to the mass media for information using their social networks as a place to validate their media choices.

The two-step flow theory, along with many of the modifications as identified by researchers, provides a strong theoretical footing to test social relations in the political blogosphere. To date, no published research has been conducted in the communication field on the applicability of the two-step flow in the political blogosphere. The majority of work on social influence in the political blogosphere has occurred in the literature of social network analysis, a theory that has yet to be fully utilized by mass communication

scholars in the political communication arena (Graber, 2005). Chapter 4 explores how social network analysis has utilized the social relations among network actors to explain connectivity within the political blogosphere context.

ISSUE AGENDA SETTING

Though the two-step flow theory was born from the findings that interpersonal communication was more effective at changing decisions, many of these studies did not discount the relevancy of mass media at the cognitive level. The shift from focusing on media's ability to change attitudes and behavior to influencing the public's cognitions or knowledge created the fuel for the agenda-setting theory, a shift captured by Bernard Cohen's (1963) observation that the media are more successful at telling people what to think about as opposed to what to think.

At the issue level, the mass media has shown its muscle in setting the public's agenda, a robust finding since the initial 1968 Chapel Hill study (McCombs & Shaw, 1972). Further studies in presidential settings in the 1972 and 1976 presidential election provided early additional support for the media's ability to set the public's issue agenda (Shaw & McCombs, 1977; Weaver, Graber, McCombs & Eyal, 1981) Over the years, this finding has been demonstrated time and time again when the agenda of voters is compared to the agenda of traditional media (Brosius & Kepplinger, 1990; Eaton Jr. 1989; Smith, 1987; Winter & Eyal, 1981). That this agenda oftentimes does not correspond to any real-world realities is further proof that agenda setting is not based on both the media or the public's reaction to real-world environmental cues (Funkhouser, 1973; Ghanem, 1996; Kepplinger & Roth, 1979).

More relevant to this dissertation is the agenda setting power of online media. Do online media have the same effect on the voter's public agenda? Though there is a limited

body of research documenting issue agenda setting with online media, there is support for the original agenda setting hypotheses. Using an experiment, the salience of racism in an online newspaper correlated with its salience in the public agenda for those individuals exposed to the newspaper with racism as a prominent concern (Wang, 2000). In another experiment, Althaus and Tewksbury (2002) found that the readers of the paper version of the *New York Times* matched its agenda more closely, particularly as it related to international news, when compared to the readers of the online *New York Times.* The latter group had a more disparate agenda, leading the authors to conclude that format differences between the print and online mediums might lead to the creation of different issue publics that are fragmented, personalized, and idiosyncratic. Needless to say, both the print and online groups had an agenda that matched the *New York Times* more closely than the control group.

The political blogosphere is a popular example of the influence of citizen media, but limited research has been conducted utilizing agenda setting as a theory to explain the connections within the blogosphere and between the blogosphere and mass media. Yet, there is evidence that the media has the power to set the agenda in citizen-controlled online media. As it relates to citizen forums, Roberts, Wanta, and Dzwo (2002) found that online media were successfully able to set the agenda for electronic bulletin board users for three issues (immigration, health care, and taxes), with a time-lag influence varying between 1 to 7 days. Only for the issue abortion did individuals resist media's agenda setting power, leading the authors to conclude that it was possible that abortion was a highly obtrusive and personalized issue. Prior agenda setting research has indicated that obtrusive issues enable individuals to gain personalized, real-world experience, thus making those individuals less dependent on mass media to provide cognitive cues about

that issue (Einsiedel, Salomone, & Schneider, 1984; Weaver, Graber, McCombs, & Eyal, 1981; Winter, Eyal, & Rogers, 1982; Smith, 1987; Zucker, 1978).

Few studies have been conducted on traditional media's agenda setting power in the blogosphere. In one of the few published studies, Cornfield et al. (2005) examined the agenda-setting dynamics between 16 mass media outlets and 16 conservative, 16 liberal, and eight general political blogs for approximately one month. The authors found a correlation of .78 for media-to-blog influence as opposed to a .65 correlation for blog-to-media influence suggesting that influence was mutual between blogs and media. Cornfield et al. (2005) also examined the frequency of keyword mentions through the time period in the sample of political blogs, providing results on the popularity of certain issues in the blogosphere.

This dissertation seeks to fill this current gap in political communication research through focusing on the agenda setting ability of the mass media, at the issue level, in the citizen media realm of the political blogosphere. This dissertation also examines the competing hypothesis of individual blog influence, both in relationship to other blogs and to the mass media. Finally, this dissertation seeks to fill the gaps in current blog research through focusing on a series of issues through different time periods in an effort to produce findings that are more generalizable and reflective of the true relationship between the political blogosphere and mass media.

ATTRIBUTE AGENDA SETTING

Weaver, Graber, McCombs and Eyal (1981) informally introduced attribute agenda setting through a nine-wave panel study. This study revealed a high degree of correspondence between the agenda of attributes of the 1976 presidential candidates and the agenda of attributes as presented through voters' descriptions of the presidential

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candidates. McCombs (2004) explicated the definition of attribute agenda setting as the framing of public issues, people, and other objects in the news. This expansion and broadening of the agenda setting theory moved the study of this media effect from its initial focus on the transfer of issue salience or first-level agenda setting to an examination of the attribute salience or second-level agenda setting. This new emphasis meant that Cohen's dictum could be revised even further such that the mass media is also successful at telling us what to think as well as how to think about certain objects.

Agenda setting has been closely related to the mass communication theory of framing. Several popular definitions abound of framing. According to Entman (1993) to frame is to promote "a particular problem definition, causal interpretation, moral evaluation and/or treatment condition." In their oft-quoted definition of framing, Tankardn, Hendrickson, Silberman, Bliss, and Ghanem. (1991) define a frame as a "central organizing idea for news content that supplies a context and suggests what the issue is through selection, emphasis, exclusion and elaboration. Frames, according to Reese (2001) are "organizing principles that are socially shared and persistent over time, that work symbolically to meaningfully structure the social world." Gamson and Modigliani (1989) state that a frame is a "central organizing idea for making sense of relevant events and suggesting what is at issue."

Agenda setting's relationship to framing has often led to suggestions that the latter theory could be incorporated into agenda setting in the search for theoretical parsimony. In viewing framing as attributes that tend towards the macro end of the attribute continuum (subsuming other lower-level attributes or 'aspect' frames), McCombs (2004) notes that some object frames act as "compelling arguments" drawing greater salience to the object in the eyes of the public. McCombs and Ghanem (2001) positioned framing at the macro end of a continuum of attribute characteristics, with frames being described as

bundling devices for lower-order attributes. As Ghanem noted (1997), attributes are the "set of perspectives or frames that journalists or the public employ to think about each other." In a further explication of second-level agenda setting, McCombs (2005) noted that attribute agenda setting can be further articulated from the affective and substantive dimensions, with affective attributes relating to the emotional tone of messages, while the substantive dimension relates to the characteristics of the object that enable cognitive understanding of the said object.

Not all scholars agree that agenda setting and framing should be incorporated in the search for theoretical parsimony. Some scholars see framing as an entirely different concept to agenda setting and caution about its incorporation into the agenda setting theory for the sake of theoretical parsimony (Kim et al., 2002; Scheufele, 2000). Reese (2001) noted that the theory of framing addresses power relationships and institutional arrangements, and framing questions both manifest and latent content in an effort to ascertain the power interests behind the creation of content. Agenda setting is usually focused on the manifest content of text. Maher (2001) pointed out that framing often involves an analysis of the environment of news content both within a text and outside the text's message system. This analysis could be qualitative or quantitative, a departure from the strong quantitative focus of agenda setting. According to Scheufele (2000), framing is based on the invoking of interpretative schemas about the issue while agenda setting and priming is based on the notion of attitude accessibility towards primarily political actors. Other scholars have embraced the relatedness of agenda setting and framing, and welcome the simplicity of viewing both theories as complementary theories (Kiousis et al. 1999; McCombs, 1997; McCombs & Ghanem, 2001; Takeshita, 1997; Yioutas & Segvic, 2003).

As of 2007, the debate still continues. Entman (2007) uses the conceptual umbrella of 'bias' scholarship to explore the relatedness of agenda setting, priming, and framing as "critical tools in the exercise of political power. Reese (2007) highlights that agenda setting "does not account for the dynamic "organizing" ability of frames. Through charting the monumental surge in framing publications through the last three to four decades, Weaver (2007) noted that framing's resemblance to agenda setting is dependent on how framing is defined though, he writes, "there are similarities between second-level agenda setting and framing, even if they are not identical processes." Chong and Druckman (2007) highlight the significance of competitive framing as a process of the elite's desire to shape and capture public opinion. These authors perceive framing effects as dependent on the strength and prevalence of the frame, the knowledge and motivation of recipients of the frame, and the combination of frames present. These authors note that framing effects will be greater with more knowledgeable individuals who hold stronger prior attitudes and who frequently expose themselves to a given frame. Scheufele and Tewksbury (2007) continue to urge distinctions among the three related theories of agenda setting, priming, and framing through reference to a. how news messages are created, b. how they are processed, and c. how effects are produced.

This dissertation is concerned not only with the agenda setting abilities of the mass media and the political blogosphere at the issue level but also at the attribute level. To date, there is very strong support for the operation of an attribute agenda setting function of the press (Benton & Frazier, 1976; Lopez-Escobar, Llamas, McCombs, Llamas, Lopez-Escobar, & Rey, 1997; McCombs, & Lennon, 1998; Takeshita & Mikami, 1995). Several of these studies have been examined against a political context. Golan and Wanta (2001) found strong second-level agenda setting effects between three newspapers and the public perceptions of candidates during the New Hampshire 2000

presidential primary. Examining six attributes of media coverage of George Bush and John McCain, the authors found chi square significance for four of the six cognitive attribute frames. The authors found less support at the affective level with only three of the six tests statistically significant. Using an experiment with fictitious candidates, Kiousis, Rantimaroudis, and Ban (1999) found inconsistent support for the operation of a second-level agenda setting effect. In a more expansive study of the Democratic and Republican candidate nominees for the time period 1980 to 1996, Kiousis (2005) found mixed support for the media's attribute agenda setting effect as measured by the increased salience of the candidate based on the media's attribute emphasis (12 of 24 correlations statistically significant); however, the relationship between media attributes and public attitude strength was strong (17 of the 24 correlations statistically significant).

Though this dissertation focuses on testing second-level agenda setting by reference to several issues, most past studies have also been conducted through examining one issue. Craft and Wanta (2004) examine the issue of the terrorist attacks of September 11 at the attribute agenda setting level using both media coverage and a survey design. Defining attributes as consequences as opposed to characteristics of the issue, the authors found support for second-level agenda setting effects by removing one attribute from the list of eight attributes.

Few studies examine attribute agenda setting in the online environment, another dimension to this dissertation. Lee (2006) examined the online media's agenda setting effect on five different attributes of the global warming issue. Utilizing an experiment to examine the media's agenda setting effect, Lee found a statistically significant relationship between the subjects exposed to the online media's content in both High and Medium exposure groups (r=.900, p=.037, n=5). The author found no relationship for the No Exposure subjects (r=.500, p=.391, n=5).

Little to date has been published on attribute agenda setting with citizen's media. Using framing as the theoretical foundation, Zhou and Moy (2007) found that media coverage did not limit the frames utilized in the online discourse of 206 online posts culled from an online forum in China, the latter forum sponsored by the *People's Daily* (China's largest newspaper). Breaking the time period under analysis into three specific phases, the authors found a correlation between media frames on the issue of the "BMW case" and the netizen's frame agenda to be significantly correlation at Phase 2 ($r=.811$, $p<.05$) and Phase 3 ($r=.787$, $p<.05$). Yet, the authors are cautious to attribute the similarity in frames to media's agenda setting, and provide some evidence that netizen's frames were driving media frames in the first phase. Within the South Korean context, Lee, Lancendorfer, and Lee (2005) found a second-level agenda setting effect of bulletin boards on newspaper content. Even though there was a level of reciprocity in this second level agenda setting effect between the bulletin boards and the newspapers, the correlations between the bulletin board content in earlier time periods to the newspaper content in later time periods exceeded the opposite flow of influence leading the authors to conclude that "Internet bulletin boards may function as a channel that journalists are able to access in order to ascertain the climate of opinion in the shortest time."

Due to the dearth of scholarship on how attribute agenda setting functions in the US political blogosphere, this dissertation adopts a more exploratory approach to testing attribute agenda setting through the examining of how agendas are correlated between the media and the blogosphere. This dissertation also examines how agendas are correlated within networks of blogs of shared, partisan ideological perspectives. Unlike the Lee et al. (2005) study, this dissertation focuses on a range of issues in an effort to garner more generalizable results that accurately describe the relationship between the political blogosphere and traditional media.

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Though there is considerable dispute as to the wisdom of lumping together second level agenda setting and framing, the author of this dissertation takes the approach that attribute agenda setting can effectively answer the questions put forth by this study. This study utilizes the attribute as a characteristic of the said issue, examining primarily the manifest content of the selected issue. Additionally, the difficulty of locating common agreement on how frames are to be identified and measured aids this author in identifying attribute agenda setting as the more theoretically defined area. In the effort to replicate prior methodological basis for identifying attribute dimensions of an issue, this study resorts to using attribute agenda setting as the terminology to identify how an issue is substantively characterized in both blog postings and media reports.

THE NEED FOR ORIENTATION

As a theory of media power, agenda setting predicts that the media transfers the saliency of its issues and issue attributes to the public's agenda. But, as McCombs (2004) noted, individuals differ in their need for cognitive and orienting cues from the media. The need for orientation, often described as the psychological explanation of agenda setting effects, qualifies the media's agenda setting power based on two individual-level factors. A typology set out by McCombs and Weaver (1973) defines an individual's need for orientation as comprising two components: 1. relevance of the news media message, and 2. degree of uncertainty about the message subject within the individual. The level of relevance and uncertainty can result in different attention levels to media messages. Regardless of the level of uncertainty, low relevance results in a low need for orientation and hence less attention paid towards media. High relevance and low uncertainty results in a moderate need for orientation from media while high relevance and high uncertainty describes individuals who pay most attention to media messages. Authors McCombs and

Weaver (1973) also note that individuals who have a high need for orientation for political issues tend to be more susceptible to mass media agenda setting influence.

Several past studies have tested the need for orientation in relation to the media's agenda setting power, finding that the components of relevance and certainty help explain the difference in individual-level agenda setting effects. Many of these studies support the premise that individuals with high need for orientation pay attention to specific media messages in an effort to reduce uncertainty. The original Chapel Hill agenda setting study (McCombs & Shaw, 1972), provides evidence of need for orientation in the near perfect match between the media agenda and the agenda of undecided voters. These voters were registered to vote, making the presidential candidacy one of high relevancy for them. Their indecision could be captured by a high level of uncertainty, thus explaining the near .97 perfect correlation between the voters' agenda and mass media's agenda. As McCombs noted (2004), there is also substantial evidence for the applicability of need for orientation in such prior studies as the 1972 US presidential election study in Charlotte, North Carolina (Weaver et al., 1981) and in the Japanese mayoral election (Takeshita, 1993).

Some scholars question the applicability of need for orientation in light of the fragmentation of mass media due to the development of Internet and Web technologies. Scholars point to the burgeoning of media options, which creates the scenario of attention scarcity (DiMaggio, Hargittai, Neuman, & Robinson, 2001; Goldhaber, 1997). Wanta (1997) noted that the need for orientation predicates near universal exposure to a media agenda, an ageing phenomenon which has been further threatened since Wanta's publication by the growth of amateur and citizen media. The growth of Internet and Web-based independent media outlets has compounded the scenario of a long tail of media options (Anderson, 2006).

How do political bloggers relate to this psychological dimension of agenda setting theory? It can be postulated that political bloggers view political news, and ultimately hard news from traditional mass media outlets, with high relevancy. The political news of the day is often the raw material that bloggers use to critique, reframe, and reanalyze media messages to their issue publics. As such, it can be said that political bloggers have high political interest in the news agenda that emanates from traditional mass media. In this respect, it can be hypothesized that political bloggers pay strong attention to political news on a day-to-day basis.

The extent of attention paid to traditional mass media news reports can also be connected to the status of the political blogger. This status also has implications for the level of uncertainty surrounding the reporting of political news. The early political blogosphere was manned by political bloggers who blogged part-time, maintaining a day job for pay. As of 2007, most successful and elite political bloggers are blogging on a full-time basis. The usage of the blog as simply an opinion platform has also changed. Bowers (2007) has identified an increase in original reporting as a result of most individually authored blogs moving to group-authored blogs. The increase in advertising and the increased audience to these political blogs has also aided in revenue gains, another attraction for successful bloggers to blog full-time.

The political bloggers' level of uncertainty can be questioned. As of today, political bloggers are still not considered journalists, though the Federal Election Commission determined on September 4, 2007, that blogs like the progressive leaning *The Daily Kos* qualify as a media entity and as such are free from Commission regulation. Most political bloggers lack a formal press pass, except for those bloggers lucky enough to have gained the respect of traditional mass media due to their former status as journalists (for example, Josh Micah Marshall) or due to their current affiliation

with traditional newsrooms on a part-time basis (for example, Glenn Reynolds and Michelle Malkin). The lack of a formal press pass means that most political bloggers still depend on traditional mass media to gain access to bureaucratic officials and insider sources to break a news story. Though bloggers have been successful at breaking stories in the past, many of these incidents show traditional mass media working hand-in-hand with the political blogger. In this scenario, it can be argued that mass media is still the primary diffuser of breaking news stories of a political nature. Yet, events like the YearlyKos blogger convention (mentioned in Chapter 1 and Chapter 2) show the growing and heightened power of the political blogosphere to create news worthy of mass media attention.

This dissertation tests the continued influence of the traditional mass media as the chief disseminator of issues and news of the day. Particularly at the issue level, it can be argued that mass media will continue to maintain its influence. However, it is important to assess how the changes in the political blogosphere impact the political blogger's ability to conduct first-hand reporting through the increased ability to break news on a day-to-day basis.

FURTHER DIMENSIONS OF AGENDA SETTING

The Role of Interpersonal Variables

Similar to the work that researchers have conducted in assessing the role of media influence through the two-step flow theory, many agenda-setting researchers have attempted to comprehend the role that interpersonal communication plays in the ability of media to transfer news salience to the public. Primarily, the focus in this area of agenda-setting research has been on testing whether interpersonal communication strengthens or

weakens the agenda-setting effects. Oftentimes, this research has been connected to the two-step flow theory. This strand of research in agenda setting is significant to a study of how the theory of agenda setting functions in blog networks. Blogs are vehicles for interpersonal communication and for many political blogs, the significance of a blog posts hinges upon whether it can spark conversation and debate in the blogosphere. As such, bloggers thrive on selecting news capable of creating debate or buzz (Cornfield et al. 2005). In that respect, it is important to assess how agenda setting and interpersonal communication compete or complement each other.

Can mass media entities prime bloggers to discuss certain issues? Many studies have sought to examine what role the media plays in transferring issue saliency to the public's mindset when personal and interpersonal communication is a strong competitive factor. Since priming has been shown to have a positive effect in presidential electoral outcomes (Iyengar & Kinder, 1982, 1987) and in priming the public's assessment of political candidates' leadership (Graberm 1980; Keeter, 1983; Krosnick & Kinder, 1990; Marlier, 1989; Wattenberg, 1991) through cueing the audience to the important evaluative dimensions for candidates, the question becomes, to what extent does media power set the salience of issues in bloggers' minds, maintaining its influence through cueing bloggers to the relative importance of issues on a day-to-day basis? Bloggers have the option to select issues that have the most probability of igniting conversation relevant to their issue publics. Bloggers can decide to turn to the media or to their peer network of bloggers for the important issues of the day. As such, it is important to address what impact, if any, interpersonal conversation can have in diminishing or elevating media's agenda setting power.

In an extension of the agenda setting theory, Shaw, McCombs, Weaver and Hamm (1999) proposed the term "agenda melding" to explain the attachment that

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individuals have to social groups, which aids in combating the social dissonance of being alone or disconnected from community. The term "meld" explains the individual's attachment and conformity to the values and beliefs of that community. The above authors described this urge as force or inherent desire of the individual to belong to a wider community, and from this membership, the individual reaps the rewards of a sense of belonging. Agenda setting works through this social process as individuals come to adopt various agendas through their membership in larger communities.

When assessing the effects of interpersonal communication on adopting the media's saliency of issues, there have been varied results. Robinson and Levy (1986) found that quantity and quality of interpersonal discussions aid in understanding the news. Using a telephone survey of college students and content analysis of the first three pages of *The Wall Street Journal, USA Today,* and the *Chicago Tribune* in alternating weeks with *Time, Newsweek,* and *US News and World Report*, Yang and Stone (2003) found no difference in the public agendas for those individuals who relied on interpersonal communication in comparison to those who relied on the mass media for cueing about the important news of the day; in fact, those who relied on interpersonal communication matched the media agenda higher. This finding prompted the authors to call for a unification of the two-step flow and the agenda setting theories since both offer similar pathways to media influence.

Lasorsa and Wanta (1990) make a distinction between media experience, personal experience, and interpersonal experience in testing individual agendas with that of the media agenda. Taking account of these two non-mediated sources or cues, and postulating that personal and interpersonal experiences would interfere with the media agenda conformity, the authors used both a survey design and content analysis of front page stories over a four-week time period of the *New York Times*, the *Austin American*

Statesman, the *ABC Evening News,* and *Newsweek.* The authors found that personal experience did not interfere with media conformity but was a positive influence on media agenda conformity, and they call for an amendment to the agenda setting model to take account of the role that personal experience pays in news media attentiveness.

Wanta and Wu (1992) found that the frequency of interpersonal discussion predicted issue saliency more than the intensity of interpersonal discussion or the respondents' level of participation. Additionally, the frequency of interpersonal communication that individuals had on non-media issues (issues not covered by the media) correlated significantly with the non-media issue concern index, suggesting that interpersonal communication could interfere with media agenda-setting effects through increasing the saliency of non-media issues.

Popular bloggers have national audiences; as such, it is also important to make a distinction between an individual's personal concern and social concern as it relates to the effect of interpersonal communication on the media's agenda-setting capabilities. Mutz (1992) found that the mass media effect was one of sociotropic priming effect, such that it primed considerations of collective perceptions to political evaluations as opposed to raising the personal concerns of the audience who paid attention to the mass media economic messages. Using two surveys of residents in Indiana, individuals who paid attention to newspaper media were more likely to identify unemployment as a social problem, while those who were influenced by personal experiences saw unemployment as essentially a personal problem. Overall, Mutz's study provides support for the fact that paying attention to mass media messages results in adoption of the mass media agenda. In her study, individuals who did not have access to knowledge of the state of unemployment in the national context defaulted to their personal sense of knowledge to

fill the lacuna in information sources. These individuals did so because they lacked subjective knowledge of social conditions from a national standpoint.

Mutz's study has been replicated for the issue of drugs.Weaver, Zhu, and Willnat (1992) found that interpersonal communication played a 'bridging' function between personal and social perceptions of the salience of drug abuse. The authors examined an individual's personal experiences with their immediate families and experiences with their friends and acquaintances through survey data. The media agenda on the drug abuse issue was based on coverage in Indiana newspapers during 1989. The authors found strong support for the role of interpersonal communication as a bridging variable at both the personal and the societal level perceptions of drug abuse. Interestingly, the authors did not find any support for the significant direct links between personal experience and personal level concern or between media coverage and societal level concern of the drug issue. The authors also found that personal level concern for the drug issue created societal level concern about the issue in the individual's mindset.

Some studies have found support for a negative impact of interpersonal communication on the media's ability to transfer its agenda of issues to the public. Mendelsohn (1996) found that interpersonal communications could prime issues in voters' minds, acting as a buffer to the media's attempt to prime voters on candidates' personal qualities. Mendelsohn examined priming over a short period of time, an election campaign, using non-experimental data from both longitudinal and cross-sectional time frames. Using data from the 1998 Canadian Election Study (CES), Mendelsohn found that media messages and interpersonal communications pull in opposite directions. Interpersonal communications can enable voters to reappraise content, providing new evidence and information. In this case, voters who engaged in interpersonal

communication were more likely to view the campaign from an issue-based standpoint as opposed to judging the candidates by personal attributes.

This dissertation is centrally concerned with the role that interpersonal communication, as signified by the hyperlink network connection between bloggers, plays in enhancing or suppressing mass media's ability to indicate the important issues of the day. No research to date has examined whether the network of blog affiliations enhance or improve media's ability to extend its agenda. This dissertation aims to fill the lacuna in current political communication research by extending the analysis of the effects of interpersonal communication on agenda setting effects in the networked political blogosphere.

SOURCE INFLUENCE AND INTERMEDIA AGENDA SETTING

In assessing the mutual impact of mass media and political bloggers' on each other's agenda, it is helpful to examine prior mass communication theory on the shaping of the news media's agenda. The shaping of the news media's agenda by relevant political actors has been likened to the metaphor of peeling an onion, a suitable image which conjures up mental images of layers of influence (McCombs & Reynolds, 2002, McCombs, 2004). McCombs and Gilbert (1986) cited this phase of agenda setting as being concerned with not who sets the public agenda but who sets the media's agenda. In capturing the various factors that shape media content, McCombs and Reynolds (2002) define the layers of influence on the media's agenda in ascending order of importance as extramedia sources such as the President of the United States, the interactions and influence of other media on the said media or intermedia agenda setting, and the practices, news values, and organizational traditions that shape the practice of journalism. In a more extended analysis of the sociology of news, Shoemaker and Reese (1996)

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provide visual representation of these influences as concentric circles. From the outermost layer to the core, the influences on media content are ideological, extramedia, organization, media routines, and the individual level.

Most of the past work on source to mass media influence has been concerned with elite political actors as opposed to the influence of the ordinary citizen. There are several reasons for focusing on the role of elites in shaping media content. Elites are in suitable structural positions to influence media content. Before the advent of the participatory Web, the only individuals that could influence media content were either members of the public in a powerful, political position or professionals with a direct channel of communication to the media. Due to organizational constraints that journalists face, journalists must also cultivate relationships with credible sources, most sources being governmental or bureaucratic (Altheide & Johnson, 1980; Fishman, 1980; Lang & Lang, 1959; Perloff, 1998; Sigal, 1993). As Altheide and Johnson (1980) noted, these ready-made channels, viewed by the journalist as more credible and reliable, often provide an avenue for the mass media to legitimate the existing power structure through allowing these elite sources to publish self-serving information or bureaucratic propaganda. In the source-relationship 'tango' (Gans. 1979), it is evident that both sources and the journalists seek a mutually beneficial relationship in a connection shaped by active negotiation, contact, and struggle (Blumler & Gurevich. 1981; Gandy, 1982; Gans, 1979; Graber, 1981; Fishman, 1980; Jameison & Karlyn, 1982; McCombs, 1991; Neuman et al. 1992; Reeves, 1997; Semetko et al. 1999; West, 1997;)

There is an ample body of work that has documented the ability of the president of the United States to influence media content with varying degrees of success (Cassara, 1998; Gilbert et al., 1980; Iyengar & Kinder, 1987; Johnson et al., 1995; McCombs et al., 1982; Wanta et al., 1989). A further body of work has focused on the success of

'informational subsidies' (Gandy, 1982) from various professions on mass media agendas (Dearing, & Chang, 1993; Hale 1986; Sigal, 1973; Turk, 1986). Before the advent of the candidate Web site, political candidates have been successful at setting the media's agenda through press releases and brochures (Kaid, 1976; Vermeer, 1982).

A significant body of work has examined the influence of one medium on another, or intermedia agenda setting. Reese and Danielian (1989) found a strong agenda setting influence of the *New York Times* on less elite national and local media drug coverage. Newspaper coverage has often been found to influence television news broadcasts (Lopez-Escobar et al. 1998; Roberts & McCombs, 1994) A stream of research has concentrated on the impact of political campaigns. Political candidates have been shown to be successful at setting the mass media's agenda through political advertising (Boyle, 2001; Roberts & McCombs, 1994).

This dissertation focuses on intermedia agenda setting between blogs and mass media and within the blogosphere network; hence, emphasis on the operation of intermedia agenda setting within the online media environment bears importance to this current study. However, the majority of prior work in this area has continued to focus on the influence of elite political entities such as political candidates and newsrooms. The framing study by Miller, Andsager, and Riechert (1999) on the relationship between the 1996 Republican candidate press releases and the news media agenda was reanalyzed from an agenda setting perspective by McCombs (2004), who found a strong correspondences between the candidate press release agendas for the 1996 Republican presidential candidates and the media agenda: +.74 for Lamar Alexander, +.75 for Pat Buchanan, +.78 for Malcolm Forbes, and +.62 for Bob Dole. Ku, Kaid, and Pfau (2003) found during the 2000 presidential election that George Bush's candidate Web site had more of a statistically significant impact on the traditional media than Al Gore's efforts.

Examining the 2004 presidential election, Tedesco (2004) found unclear agenda setting relationships between the candidate-journalist issue agendas, though George Bush's candidate issue agendas more closely resembled the news media than John Kerry. Looking at a new area of research exploring the agenda setting impact of candidates on each other, Tedesco (2004) found moderate to high correlations ranging from .484 to .877 for the candidates' influence on each other.

Two recent studies have looked at the agenda-setting influences of online media on each other's agenda; however, these studies focus on the newsroom. Conducting research in South Korea, Lim (2006) found support for the newspapers' influence on the wire services, and for the leading newspapers' influence on the less elite newspapers and on the wire services. Debashis and Yu (2006) examine the media agendas of the *New York Times, the Washington Post,* CNN, Yahoo News, MSNBC and Google news, finding that the issue agendas for all of these media were similar. All 21 potential 2-media correlations yielded a median value of .508 and a mean value of .748. However, the authors did find that the correlations between the portal news outlets Yahoo News and Google News and traditional media news agendas yielded a weaker correlation than traditional media's correlations with itself.

Little current research has been conducted on the ability of the citizen to set the mass media's agenda. Conducting research during the 2000 general election in South Korea, Lee et al. (2005) found higher correlations in support of newspaper influence on online bulletin board conversations.

Some studies have examined the relationship between political blogs and traditional media, but much of this work lacks the rigor of systematic and generalizable scientific analysis. With one notable exception, Cornfield et al.g (2005) found that blogs were able to impact the media agenda: the authors found a blog-to-media agenda

correlation of .68 in comparison to a media-to-blog agenda correlation of .78. Using an online survey to gauge blog readership, Drezner and Farrell (2004) found that 140 editors, publishers and columnists accessed a total of 125 unique blogs as identified by their top three blogs. Through a query of the Lexis Nexis database, Marlow (2004) found 310 blog URLs from a total of 4,728 newspaper articles.

This dissertation questions the flow of influences between mass media and blogs as well as the influences among the political networked blogosphere. Treating blogs as a form of citizen media, this study examines the intermedia agenda setting dynamics between mass media and bloggers and amongst the different partisan networks of political blogs. This study contributes to political communication through focusing on the role that the citizen influential plays in setting agendas, whether it be the mass media's or the agenda of other influentials.

GATEKEEPING

Gatekeeping is a theory that has been closely aligned with agenda setting theory. As McCombs (2004) noted, gatekeeping was incorporated into agenda setting theory in the 1980s when scholars began to address the question, "Who sets the media's agenda?" Since Lewin (1947) coined the term 'gatekeeper' in his study of group dynamics, the term has been used in mass communication theory to signify the news selection process by news organizations. According to Shoemaker et al. (2001), gatekeeping is "the process by which the vast array of potential news messages are winnowed, shaped, and prodded into these few that are actually transmitted by the news media." White's (1950) original study of the news selection decisions of wire editor Mr. Gates revealed that his news selection decisions were made based on highly subjective criteria such as value

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judgments, personal experiences, attitudes, and expectation. Seventeen years later, Snider (1967) replicated White's study, revealing that Gates made more extensive use of wire copy, increasing his usage from 11% in 1949 to 33%, with the top seven categories of AP news accounting for 87% of Gates's total output.

Though these above findings echo agenda-setting theory, this direct connection would take nine more years to be made (McCombs & Shaw, 1976). McCombs and Shaw (1976) found support for Gates's adoption of the wire services' agenda: a spearman's rho of .64 and .80 was found between the ranks of the news items supplied by the wire services and the ranks of stories by Gates in White's and Snider's studies respectively. Whitney and Becker (1982) did a larger scale study of 52 editors from print and broadcast media in Dayton, Ohio, finding no support for shared news values as the basis of similar news selection decisions between the local news editors and those wire editors at the regional, national, and international bureaus. Instead, the authors found that newspapers editors seemed to accept the categorical news decisions of the wire editors. Through assembling an 'unbalanced' deck of news in seven categories, the authors found a Pearson's correlation of .71 (p=.025, n=7) and a Spearman's rank order correlation of .62 (p=.025, n=7) between the items coming in from the wire services and the news published in categories by the local news organizations in Ohio.

The idea that gatekeeping is no longer a tenable theory in the new media environment has been actively considered since the growth of cable news and independent and alternative media. Katz's (1992) analysis of the 1991 Persian Gulf War lead him to crown Cable News Network (CNN) as the "unquestioned winner of the war." CNN, then the new kid on the block, imported the idea of an all-news channel from commercial radio to deliver "news like hot potatoes." This live-style of editing seemed to eliminate the traditional role of editor.

Kovach and Rosensteil (1999) suggested that the ideal of gatekeeping is under assault because of the twenty-four hour news cycle, the proliferation of news outlets on cable and the Internet, the professional political management of relations between reporters and political sources, and the ratings and audience-driven reorganization of the news industry, which creates a blockbuster mentality favoring big, sexy, dramatic, scandal stories. Writing much of this analysis before the explosion of citizen media, these authors did not anticipate the impact that a more engaged citizenry would have on the ability of news organizations to control the flow of news and information over the Web.

Some question whether the metaphor of a "gate" makes sense in the Web environment. Using the example of sex scandal between former US president William Clinton and White House intern Monica Lewinsky, Williams and Delli Carpini (2000a, 2000b) note that if there are no more gates, there cannot be an elite gatekeeper. Arguing that the fundamental changes in the new media system obliterates the notion of an elite media gatekeeper who controls news selection and dissemination over the Internet, the authors use the case study of the Clinton-Lewinsky scandal to highlight how quasi-alternative tabloid media, Internet media like the Drudge Report, and the "always-on" phenomenon of the 24/7 news cycle undermined the power of the traditional press in its coverage and details of the scandal. Though traditional media attempted to reframe the scandal as one of moral standards, the public rejected this interpretation by separating Clinton's public role as president from his private actions. With the growth of non-news genres such as entertainment, movies, television dramas, comedies, and music, the authors argue that the social responsibility basis of the press has been eroded. The authors conclude that the myriad gates now operating on the Internet, dubbed "multiaxiality," presents a direct attack on elitism as the public assumes more of an active role in the decision-making process of what constitutes news. Citizens can no longer be assumed to

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be "unsophisticated consumers of information." Though the suitability of using this sensationalized case study as an example of changes in gatekeeping has been critiqued (Bennett, 2004), it is evident that this scandal is a good catalyst to discuss the differences wrought by the Internet.

Some criticize gatekeeping as a elite model of traditional media's control over news, another assumption no longer tenable on the Internet due to the unabashed growth of citizen media. Writing back in 1996 about the changes occurring over the Internet, Lassica (1996) noted that "old Media's practice of top-down, father-knows best journalism is tired, clunky, and obsolete." In Lassica's (1996) article, Rheingold (1996) suggested that the era of the traditional media's dominance, symbolically defined as the reign of the *New York Times,* is nearing its end.

But, is mass media's role in instigating information flow really a thing of the past in the new realm of networked politics? The blogosphere's style of publishing is one that occurs instantaneously at the push of a submit button without the intervention of expert editors, and information flow is easily facilitated by the creation of a hyperlink. With their style of writing similar to live reporting, it can be asked, to what extent does live reporting really eliminate the gatekeeping function of the press? A recent study of traditional media by Livingstone and Bennett (2003) found that even in event-driven news contexts, official sources of information remain a staple feature of news stories. Assessing *CNN's* international desk stories during the period 1994 to 2001, the authors found that though event-driven news dramatically increased over the same time period, official sources remained heavily depended on to provide analysis of the events as they occurred. The authors concluded "when an unpredicted, nonscripted, spontaneous event is covered in the news, the one predictable component of the coverage is the presence of official sources."

It remains to be seen how gatekeeping applies to the blogosphere. Within the blogosphere, there is an accepted notion that mass media reports are overly filtered by the journalists' personal opinion, as opposed to their reporting of information from primary sources. The role that advertising plays in shaping the slick presentation of mass media news also adds to the citizen media fuel and to the push for seeking more primary sources of information.

Yet, the blogosphere does not have access to as much primary information as journalists. Bloggers, in many senses, must depend on mass media for cueing of significant stories. However, it is recognized that bloggers can also recreate narratives through piecing together source material which is often available on the Internet. Bloggers can also conduct their own reporting through interviewing and accessing primary sources. As such, this dissertation questions the blogosphere's dependence on the mass media as the gatekeeper to issues and issue attributes.

Many have sought to revise the gatekeeping model for a new media environment. Bennett (2004) proposed a multi-gated model of news flow for the new media environment that takes account of the reporter's personal and professional news judgments, organizational news gathering routines that establish working relations between reporters and sources, economic constraints on news production, and information and communication technologies that define the limits of time and space in news gathering. These four factors operate against such defining elements as decisions, information gathering and organizing, the journalist's role, the conception of the public, press-government relations, and the gatekeeping norm. As Bennett (2004) noted, though gatekeeping may change its shape, it is unlikely that mass media news organizations will lose importance as the chief filter for conventional hard news. Since publication of Bennett's model in 2004, the growth of participatory technologies has flourished to such

an extent that this change is often considered a serious threat to the traditional ideal of newsroom gatekeeping. Yet, Bennett's viewpoint may be accurate when he declares that the alarm about the end of gatekeeping might be the result more of "disruptions or 'punctuations' in the old equilibrium.

Scholars who study online media have actively reshaped the existing gatekeeping theory to take account of characteristics of the new media. Such scholars study the hyperlinking practices of Web sites, using the hyperlink as a symbolic representation of the act of gatekeeping. Dimitrova et al. (2003) identified the act of gatekeeping in the very function of selecting which hyperlinks to include in Web stories. Taking this a step further, the choice of hyperlinks in the Web environment can also signal which sources are trusted, valued, and included in the network that creates online news. According to Dimitrova et al. (2003), "gatekeeping may be as noticeable in its absence as in its presence." Trench and Quinn (2003) note that the role of a journalist may be less of a gatekeeper and more of an interpreter or guide helping people navigate the many informational choices that are now available on the Internet. In examining how technology is altering the practice of journalism, Pavlik (2000) noted that the Web is now a resource for story ideas and background material for traditional journalists. Pavlik points out that the growth of digital, networked technologies also suggest that journalists needed to engage in more of a dialogue with the public, seeing themselves as less of an elite gatekeeper and more of a vehicle for two-way communication. According to Pavlik, a failure to engage the public may result in the public turning to more primary sources of news as opposed to turning to the media as the gatekeeper.

Early research demonstrated the newsroom's hesitancy to use hyperlinks in the online environment. Deuze (2003) cautioned the tendency of news sites to avoid external linking in favor of exclusive on-site linking. Dimitrova et al. (2003) examined 473 stories

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from 15 Big Media newspapers concerning the execution of Timothy McVeigh, the American terrorist who was responsible for the April 19, 1995, Oklahoma City bombing, finding that 94.8 % of the stories took readers to related material within a newspaper's own Web site with over 80% of the hyperlinks being repeated or duplicate links. These authors suggested that the newspapers may be unwilling to relinquish their gatekeeping role.

Recent research suggests that the newsroom's hesitancy to utilize the strengths of the Internet medium may be changing. In a longitudinal analysis, Tremayne (2004) found that newsrooms used greater hyperlinks, a phenomenon predicted by network theory. This study will be explored more in Chapter 4. Singer (2005) examined the efforts of journalist bloggers, or j-bloggers during the Super Tuesday 2004 presidential election. Examining ten national and ten regional blogs by journalists for one constructed week between February 15 and March 15, Singer analyzed 1, 136 blog postings finding that of the 2,614 links, 2015 linked to mainstream media sites or themselves while 360 of those links were to their parent companies, leading Singer to conclude that journalists are "normalizing the blog format" to maintain control over the information they disseminate.

Singer (2006) suggested that the newsroom is taking baby steps towards creating a dialogue with the public. In a survey of 77 newspaper editors on their campaign coverage goals during the 2004 presidential election, Singer (2006) found that only two editors offered goals directly related to engaging users in a more discursive form of democracy while the majority saw their role as informing the public. Yet, many editors cited the newspaper's ability to offer personalized content as one of their most notable accomplishments. Approximately 18% and 21% of editors cited blogs first and second as the accomplishments they were most proud of at their newspaper. Many editors were keen to continue the movement towards a more interactive and participatory experience

at their newspaper's online Web site, leading Singer to conclude that newspaper editors are experiencing an evolution in their thinking about their role as information disseminators as it relates to the online news format.

This dissertation takes the approach that gatekeeping is a tenable theory in the new media environment, and uses the gatekeeping theory in reference to the hyperlinking practices of both the traditional media newsrooms and the networked political blogosphere. Using prior literature as a guidepost, this dissertation will conduct link analysis to ascertain to what extent mass media and the blogosphere depend on each other for news. Alternatively, it will be instructive to question to what extent the blogosphere bypasses traditional media as the primary source of information in an effort to connect more to citizen media experts in their social networks.

THE USEFULNESS OF MASS COMMUNICATION THEORY TO NETWORKS

Touching on the usefulness of agenda setting theory to the dynamics of blog networks, McCombs (2005) noted:

Regardless of whether the basic agenda setting effects of news media continue in much the same fashion as the previous decades or eventually disappear because of the changing media landscape, measuring these effects will remain high on the research agenda for at least the near term. (pp. 546)

Though it is recognized that existing mass communication theory cannot fully explain network dynamics among communities on the Internet, several preexisting mass communication theories can be applicable to the study of how agendas are formed, shaped, and distributed on the Internet. This dissertation seeks to test the tenability of

agenda setting at the first and second-level, the two-step flow as it relates to opinion sharing among popular bloggers and the role of multiple network positions in the flow of information within and between blog networks, and gatekeeping as it relates to hyperlink connections between bloggers and media. Through examining the usefulness of these theories, this dissertation hopes to make a significant contribution to the study of political communication as it relates to the emerging Web technologies that ground this new participatory culture.

Chapter 4: Social Network Analysis and Networked Politics

Social network analysis is a general theory of structural relations that focuses on the relationships and linkages between individuals. Social network analysis is an interdisciplinary theory, and its strength derives from its usage and extension within several disparate disciplines. This dissertation seeks to apply social network analysis to the flow of information and social influence within the networked political blogosphere. As a methodology that has yet to gain significant influence in the political communication field (Graber, 2005), it is important to review the definition, history, and applicability of social network analysis in an effort to establish its significance to the study of networked behavior in online contexts.

Several seminal publications and books define social network analysis in a similar fashion. Wasserman and Faust (1994) define social network analysis as the study of "relationships among social entities, and on the patterns and implications of these relationships." In sharp contrast to the study of individuals through survey design techniques, these authors distinguish social network analysis through its emphasis on the interdependence of actors and their actions, the relational ties between actors, the network structure of ties between and among individuals, and the conceptualization of network structure along such dimensions as social, economic, and political lines as it impacts lasting patterns of relations among actors.

This extensive definition by Wasserman and Faust (1994) is echoed by other scholars who are considered foundational to the theorizing of social network analysis. Scott (1991) defined social network analysis as the study of relational data where the relations are treated "as expressing linkages which run between agents." Contrasting the relational data of social networks with the attribute or variable analysis common in social

science data, Scott noted that social network analysis is principally concerned with the "structure of social action." Nooy, Mrvar and Batagelj (2005) defined social network analysis as the focusing on ties among people, groups of people, organizations and countries in an effort to detect and interpret "the pattern of social ties among actors." These social ties, modeled as a network of vertices (nodes or actors) and lines (connections between nodes or actors), can then be visualized through applications that provide visual representation to these patterns of ties.

Assessing the social structure of networks has often been done using matrix algebraic methods (Wasserman & Faust, 1994) and visualization through computer software programs (Freeman, 2000). This dissertation will use both methods to test the relationships between mass media and the blogosphere as well as the relationships among political blogs across the ideological spectrum.

THE LANGUAGE OF SOCIAL NETWORK ANALYSIS

The interdisciplinary origins of social network analysis have resulted in variable vocabularies to describe the same phenomenon, depending on the field. Because this dissertation utilizes social network analysis as a methodological tool, it is important to define the essential concepts and terms that are useful to a testing of this study's hypotheses and research questions. The lexicon surrounding the study of social network analysis is diverse; for the sake of simplicity, this section will focus on only those terms that are important to a test of this dissertation's hypotheses and research questions.

The fundamental unit of a network is called a vertex, though it may also be called a site (physics), a node (computer science) or an actor (sociology). These vertices, sites, nodes, or actors are connected through edges or lines, and an individual edge or line connecting two vertices is called a bond (physics), a link (computer science) or a tie

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(sociology). A network comprises vertices and edges, and systems that take the form of networks that are called graphs, the latter term taken from a branch of mathematics called graph theory (Newman, 2003; Nooy et al, 2005). Figure 4 (Appendix B) provides an example of a basic network connecting a series of vertices to each other.

The lines or edges connecting two vertices can either be directed or undirected. Directed lines, also called arcs, involve a connection that may not be reciprocated between two actors. For example, a directed arc can involve one vertex connecting to another without the reverse relationship. A directed graph or diagraph contains one or more directed lines or arcs that run in only one direction, and the direction of the connection is often modeled by attaching an arrowhead to each line (Scott, 1991).

In contrast, an undirected edge involves reciprocity such that two vertices connect to each other. In this scenario, lines that represent an undirected edge would be devoid of power considerations because the connection is reciprocated and is bidirectional (Scott, 1991; Nooy et al. 2005; Newman, 2003). These relations between two vertices, either modeled as a directed arc or an undirected edge, can be weighted by the intensity of the relation. When numerical values are attached to the lines between two vertices, this network is called a valued graph (Scott, 1991). In Figure 4 (Appendix B), the connection between node A and node B is directed as opposed to the connection between node A and node C. As can be seen from the figure, the connection between node C and node D is valued, with the numeric 5 indicating the strength of the tie between both of these nodes.

Networks and their nodes cohere in different structural patterns, which enable a description of a network based on its connectedness and its density. The simplest structural formation in a network is a dyadic relationship between two vertices. However, as Monge and Contractor (2003) note, social network analysis has evolved from the study of individual and dyadic nodes to include the study of traids, subgroups. cliques, and

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blockmodels (subnetworks of nodes with different values of attributes). The inherent multilevel nature of networks has led Monge and Contractor (2003) to call for an approach to the study of networks that is multilevel and multitheoretical.

Attached to this concept of the cohesion of a network is the vertex degree. Each vertex will have a degree depending on the number of edges and arcs that run to and from it. The vertex degree, also called the vertex connectivity, can be expressed by in-degree and out-degree. In-degree refers to the number of arcs that a vertex receives while out-degree is the number of arcs that a vertex sends. The total number of edges and arcs present in a network is referred to as network density (Nooy et al. 2005; Scott, 1991)

Most networks, by default, are one-mode networks. One-mode networks relate each vertex to each other vertex (Nooy et al. 2005). Each vertex is connected to the other vertex, with the absence or presence of a relationship between vertices denoted by a numeric. If a relationship is present and modeled on the simple presence/absence of a connection, that relation can appear as a 0 (absence of a relationship) or 1 (presence of a relationship), translated in binary terms. If the strength of the connection is weighted, ascending numeric numbers capture the value or strength of the tie between two vertices.

Each node in a network can be examined for its social capital or sociability in the network (Nooy et al. 2005). This social capital can be expressed by examining a node's centrality, and the idea of centrality is one of the oldest concepts in social network analysis (Nooy et al. 2005; Scott, 1991). In a review of the existing literature on node centrality, Freeman (1979) provides conceptual clarity to the definition of centrality as defined by three concepts: degree, closeness, and betweenness. A node's degree centrality is measured by its distance from other nodes and its extent of connections. Some nodes occupy structurally advantageous positions based on being connected to all other nodes (star network); in some networks, all nodes have the same number of

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connections (circle network). Figure 5 (Appendix B) presents drawings of both the star and the circle network. Freeman (1979) defines this measure of centrality, degree centrality, as a node "in the thick of things," or a node that has high visibility and communicative potential.

Another measure of a node's centrality is the node's closeness. Leavitt (1951) defined a node's closeness as its ability to avoid control from other nodes, achieving a level of independence through nondependence on other nodes as transmitters or relayers of information. Bavelas (1948) defined a node with high closeness as one able to transmit information to all other nodes in a short space of time due to its proximity to all other nodes. Several studies define a node's centrality in terms of its closeness to other nodes, viewing this position as advantageous in terms of sharing information, gaining power, and attaining status in the network (Bonacich, 1972; Burt, 1982; Coleman, 1973; Friedkin, 1991; Harary, 1959; Shaw, 1954).

Finally, a node can be assessed for its centrality based on its betweeness. Betweeness is a measure of a node's position as an intermediary. Nodes are more crucial if they occupy positions that enable them to transmit information through a network through linking together different nodes. As Freeman (1979) noted, betweeness is a measure of a node's ability to "permit direct contact with many others." Several studies have also defined a node's centrality as based on its betweenness (Freeman, 1977; Friedkin, 1991; Shaw, 1954). The three measures, degree, closeness and betweeness, define graph centralization of a network (Freeman, 1979; Newman, 2003; Scott, 1991).

Affiliation networks or bipartite graphs refer to networks of membership based on attachment to common groups (Newman, 2003). Affiliation networks, often called two-mode networks, connect actors to events, and it is the events or affiliations that connect the disparate actors in the network (Nooy, et al. 2005). Examples of affiliation networks

from prior studies include networks of CEOs (Galaskiewicz, 1985; Galaskiewicz & Marsden, 1978), collaboration of scientists (Newman, 2001), film actors (Watts & Strogatz, 1998), and even sexual contacts (Ergun, 2002; Newman, 2002).

Table 1 and 2 (Appendix A) present data matrices of a one-mode network and a two-mode network respectively. As Table 1 (Appendix A) highlights, one-mode networks connect vertices to each other, and viewing a visualization of the network can provide clues into how the different vertices cohere into simple and more complex structures. Table 2 provides the scenario of a two-mode network where the events become the glue connecting vertices to each other. Relationships among vertices only make sense in terms of the events that structure the relationships. The letter "x" denotes the connection of an actor with an event.

This dissertation will translate the many concepts mentioned in this section into a study of the relationships among disparate partisan blog networks, as well as between blogs and mass media entities. Using centrality indicators to assess the differences in network positioning, and one-mode and two-mode forms of analysis, this dissertation seeks to capture how social influence and information flow in networked relationships.

A BRIEF HISTORY OF SOCIAL NETWORK ANALYSIS

Social network analysis is rarely utilized in current mass communication scholarship; as such, a brief outline of the theory's origin can prove helpful to grounding its interdisciplinary origins. As will be highlighted, social network analysis has developed with major input from such fields as sociology, anthropology, psychology, mathematics, statistics, and most recently, physics (Hummon & Carley, 1993; Newman, 2003). This interdisciplinary focus is the lynchpin behind the fragmented history of social network analysis, a history that has developed due to the influence of several disparate disciplines.

The most widely recognized beginning to social network analysis was Jacob Moreno's presentation to the Medical Society of the State of New York in 1933, titled "Who Shall Survive?" Moreno (1933) used a sociogram (a graphical representation of group structure using circles and arrows to model actors and connections respectively) to highlight his work on isolation and children, and Moreno is credited with founding the science of sociometry (Monge & Contractor, 2003; Nooy et al., 2005). In addition to Moreno's study, several classic studies form the foundation for the early beginning of social network analysis. Davis, Gardener, and Gardener (1941) conducted a study in 1936 on the social affiliations of southern women in an unnamed city of the American south. Roethlisberger and Dickson (1939) examined social networks of factory workers in Chicago in the 1930s. One of the more influential studies was by Rapaport (1957) who discovered similarities among all forms of networks.

Since its beginning in the 1930s, social network analysis has progressed to include a specialty, flagship journal, Social Networks, an international society called the International Network for Social Network Analysis (INSNA), and an annual meeting, the Sunbelt Social Network Conference. Popular names in the field pre-1970s include Harrison White, Clyde Mitchell, Barry Wellman, Linton Freeman, and Mark Granovetter from the field of sociology, Elizabeth Bott and John Barnes from the field of anthropology, J.L. Moreno from the field of psychology, Frank Harary from the field of mathematics and James Coleman from the field of statistics. Since 1988, new scholars have emerged, including Ronald Burt, Edward Laumann, Ronald Breiger, and Claude Fisher from sociology, and Russ Bernard from anthropology. With the advent of the World Wide Web and the growth of online networks in the 1990s, physicists and scientists such as M.E.J. Newman, Albert-Laszlo Barabasi, Duncan J Watts, and Mark

Buchanan have extended the theory of social networks to networked phenomenon on the Internet.

No review of the foundational literature of social network analysis would be complete without mentioning the "small world" experiments. Milgram (1967, 1969) probed the path lengths in acquaintance networks by asking individuals to deliver a letter to a specific person through passing the letter along to first-name acquaintances. Of the 25% of letters that were delivered successfully, the average number of hands that the letter passed through was six people. This experiment led to the famous phrase, "six degrees of separation," coined by Guare (1990) many years later.

The Early Beginnings

Wasserman (2003) noted that social network analysis progressed in almost a linear fashion with the developments of sociometry, graph theory, dyads, triads, subgroups, and blockmodels such that by 1980, all of these methods were utilized by a small network of social network analysis scholars. Scott (1991) provides an excellent analysis of the history of social network analysis. This section summarizes Scott's strong contribution to documenting the early history of the field. Scott (1991) identified three main traditions that have shaped the early development of social network analysis. A brief review will be provided of each one.

Sociometric analysis and graph theory is one of the first traditions to shape the foundation of social network analysis. During the 1930s, several theorists studied gestalt tradition, a strand of psychology which stresses the organized pattern of thoughts and perceptions. These gestalt theorists, who included Kurt Lewin, Jacob Moreno, and Fritz Heider, would come to shape the social network analysis field. Moreno, mentioned earlier, translated his interests in the structure of interpersonal communication to the

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sociogram, a model of circles and lines which translated into actors and their connections. Lewin's (1936) work on group behavior and the influence of the perceived environment led him to explore mathematical techniques of topology and set theory to explore the interdependence of the group with its environment. Heider (1946) also contributed to the study of group dynamics through his work on the social psychology of attitudes and perceptions. The application of graph theory to group behavior would later build on the work by Lewin. Cartwright and Harray (1956) pioneered the usage of graph theory to group structures, pushing the field of social network analysis from the study of cognitive balance in individuals to interpersonal balance in social groups. These two scholars modeled groups as collections of points and lines, and they deconstructed group structures as built on simple structures of dyads, triads, and subgroups.

Scott (1991) cites the next major milestone of social network analysis by reference to the Harvard researchers of the 1930s who explored the patterns of interpersonal relations and the formation of cliques. The Hawthorne studies, classic studies in social investigation (Rose, 1975), looked at worker efficiency during the 1920s, conducted by managers in the Hawthorne works of the Western Electric Company in Chicago. These studies attempted to link changes in physical conditions in the factory to worker productivity, yet the unsuccessful connection (worker productivity increased regardless of environmental change) led to the modeling of actual worker relations with sociograms. Other major researchers include Radcliffe-Brown and Durkheim and W. Lloyd Warner. Warner and Lunt's (1941, 1942) studies of Newburyport, a small New England city, was nicknamed the "Yankee City" reports. These reports used diagrams to model class structure and family organization in subgroups called cliques. Similar to the Yankee City reports, colleagues of Warner investigated the 'Old City' looking at southern states during 1936. The field of social network analysis would take an

innovative turn from the 1950s with social anthropologists at Manchester University emphasizing conflict and change in groups as opposed to integration and cohesion. Popular names in this Manchester group include Elizabeth Bott, Max Gluckman, John Barnes, Clyde Mitchell, and S.F. Nadal. Barnes is credited with seeing social life as a set of points, some joined by lines to result in a network of relations. Bott's work lay principally in investigating kinship relations using a network to symbolize these different kinship forms. Nadal saw social structures as structures of roles with the roles and role sets defined through networks of interdependent activities. Mitchell continued the Manchester's anthropologists focus on individually-anchored partial networks to focus on ego-centered networks (focal nodes in a network). Mitchell examined such concepts as reciprocity, intensity, and durability of the relations.

Scott (1991) identified the final important strand of the early foundation of social network analysis in the work of sociologists with connections to Harvard, Chicago, and Toronto. Mathematical innovations such as the application of graph theory and usage of algebraic methods to conceptualize roles in social structures were characteristic of the work of these sociologists. Sociologists in this group included Harrison White (1963, 1970, 1992a, 1992b, 1993). Mark Granovetter (1973 1982) theorized on the strength of weak ties (discussed in a later section) while the International Network for Social Network Analysis was formed under the leadership of Barry Wellman and Steve Berkowitz. Some influential studies in this period included an assessment of conflict among novice monks in a monastery (White, Boorman, & Brieger., 1976), social structures in urban political networks (Laumann & Pappi, 1976) and networks of personal influence (Wellman, 1979).

World Wide Web Networks: Enter the Physicists

The study of networks has a strong foundation in mathematics. This connection dates back to Euler's 1736 proof that it was not possible to walk across the seven Konigsberg bridges of St. Petersburg, Eastern Prussia, without crossing the same one twice (Barabasi, 2002). Euler's work in visualizing the bridges as a graph with a collection of nodes and links led to the modern birth of graph theory, the underlying foundation for an explanation of network theory. Before the more recent developments of network theory in the 1990s, network theory would go through several attempts at modeling the dynamics of social systems. Some of these attempts would make bold claims; others theories would be more content to live in mathematical abstraction.

The first attempt, random graph theory, was the design of mathematicians Paul Erdos and Alfred Renyi during the 1950s and 1960s. These mathematicians envisioned a network as a random graph, a static system where each node would have equal probability of connecting to other nodes in an egalitarian, democratic fashion. The static world was modeled with a lack of local clustering into hubs or strongly connected nodes, resulting in a histogram with a Poisson distribution (prominent peak). They made no claims for a universal network theory in their regular, random wiring of social connections in their network models (Barabasi, 2002; Buchanan, 2002; Watts, 2003). As such, these random graph network models would prove of little usefulness in its applicability to real-world networks since real world networks are both non-static and non-egalitarian in the way actors connect to each other.

The next bold move would come from the sociologists and psychologists, working off of the theoretical contributions of Stanley Milgram (1967) and Mark Granovetter (1973, 1982), who both suggested that the world was a 'small world' of

conscious connections. These small world network theories were the design of Duncan Watts and Steve Strogatz who envisioned a network existing between order and chaos, randomness and order. This hidden order, derived from a world that was clustered but random (through the appearance of some random links which acted as long distance bridges) created a small, connected world. But, in this world, hubs were rare, connections were still random, and no node was permitted to have an excess of links over another node.

The study of complex networks has matured since the world of random and small world networks, and many of the weaknesses in the assumptions of these past theories work to ground the strength of these newer, more current theories of networks, called growing networks theories. These growing network theories, also called scale-free network theory, were primarily theorized by physicists Albert-Laszlo Barabasi and Reka Albert. According to Barabasi and Albert (1999), networks are not static (as postulated by random graph theory) but grow over time. Unlike the assumptions of small world network theory, which makes no allowance for nodes that command a majority of attention, these scale-free networks grow by a principle called preferential attachment. According to this principle, new nodes or entrants into the network prefer to connect to those nodes that are already well connected. Most of these well-connected nodes gain their celebrity status through being longer in the network, as well as due to their initial attractiveness. As a result of growth and preferential attachment, these scale-free networks are characterized by power laws where the rich get richer, and a few nodes become hubs or super connectors commanding the majority of attention, while the majority of the network has a low level of connectivity. The long tail of the power law curve suggests that it is more probable to locate a node that is less connected than one more strongly connected. Figure 6 (Appendix B) provides an example of a power law.

Related to these principles of growth and preferential attachment is the idea of the emergence of self organization (Barabasi, Albert, and Jeong, 2000). The theoretical underpinnings of scale-free networks, which made explicit its intent to model networks upon real-world systems, facilitated the ability to study larger, more complex networks such as food Webs, and World Wide Web networks. Many of these larger datasets provided evidence of the principle of emergence, defined by Johnson (2001) as "the movement from low-level rules to higher-level sophistication." The self-organizing and self-regulating characteristics of these networks confer an intelligence and order to what could be conceived of on the surface as a disorderly and chaotic system. The awareness that many complex networks move towards a scale-free network in their maturation from disorder to order provides a sense of hidden order and intelligence to complex systems (Adamic & Huberman, 2001; Barabasi & Albert, 1999; Barabasi, Albert, & Jeong, 2000; Dorogovtsev & Mendes., 2000; Faloutsos, Faloutsos, & Faloutsos, 1999; Huberman et al. 1998; Kleinberg & Lawrence, 2001; Shirky, 2003; Strogatz, 2001).

Many of these scale-free networks are dominated by hubs (Kleinberg, 1997). These hubs provide evidence of clustering, a common trait in real-world networks. This clustering is further proof that some nodes in a scale-free network receive more widespread connections than other nodes. Also, these hubs give the appearance that scale-free networks are small worlds; according to one study, the diameter of the World Wide Web is only 19 clicks suggesting that on average, each Web page is accessible from another by a maximum of 19 clicks (Albert, Jeong, & Barabasi, 1999). However, it has been recently discovered in World Wide Web networks that these scale-free networks are not as connected as once perceived. Because these networks are primarily directed networks (a Web page can link to another Web page without reciprocation), the ability to be found on the Web is largely determined by an "outbound link" connection from a hub.

The result is that those pages that are not linked from the connected core of hub pages remain invisible and hidden from view of those social actors in the network (Broder, Kumar, Maghoul, Raghavan, Raagopolan, Stata, Thompkins, & Weiner, 2000).

Networks can also be said to displaying clustering or transitivity. If a node, A, is connected to a node, B, and B to C, then there is a heightened probability that node A connects to node C. With transitivity, the probability is strong that two vertices that are network neighbors of the same vertex will themselves be neighbors. Another related principle to how network nodes cluster is reciprocity. The probability that two vertices in a directed network point to each other is called reciprocity. Related to this principle is the study of which vertices decide to pair up together in a network. In social networks, this kind of selective linking is termed homophily (described in a later section) or assortative mixing, with classic examples being mixing by race or other scalar characteristics such as age or income.

Several studies have found evidence that World Wide Web networks obey the laws of scale-free networks, as identified by the presence of a power law in the network. Huberman, Piroli, Pitkow, and Lukose (1998) found that the amount of Web pages surfed among 107 faculty and staff at the National Center for Supercomputing was inversely proportional to the Web site's depth. Power law trends have been found in the growth of Web sites (Huberman & Adamic, 1999, 2001). Web site traffic has also been found to exhibit power law characteristics. Examining market share on the Web through analysis of AOL usage logs of 120,000 Web sites, authors found that the distribution of visitors to the sites followed a power-law distribution. Rating popularity as the number of unique visitors to the site per month, the authors found that the top 119 sites captured 32.36 of the user volume. These findings were replicated for adult sites with the top 10% capturing 60% of traffic, while with the .edu sites, the top 5% captured 60% of traffic.

UNCOVERING NETWORKS THROUGH LINK ANALYSIS

The majority of past studies have examined Web power law relationships through conducting Web crawls and using link data as the form of analysis. Barabasi, Albert and Jeong (2000) found a power law for inbound and outbound links on Web documents based on constructing a robut to track URLs from the Web. Broder, Kumar, Maghoul, Raghaven, Rajagopalan, Stata, Thompkins and Winer (2000) confirmed a power law for in- and out degree distributions after a Web crawl of 200 million pages and 1.5 billion links. Link data has been mined to examine the strength of the social connections and bond between different communities primarily through the methodology of Web crawls. Many studies examine the concept of clustering and transitivity among nodes that have preferential similarity. Though the analysis of the cooccurrence of text and links within personal home pages of Stanford and MIT communities, friendship was accurately predicted within these communities by similarity (Adamic & Adar, 2003). Deriving a sense of the social structure of a university community, the authors found evidence of the power law in that only a few pages were linked to the most, while for most authors, there was a limited number of inbound links.

This power law and the underlying connections implied by hyperlinking on the Internet have been concepts that apply to the search for networked community on the World Wide Web. Eckmann and Moses (2002) used solely hyperlink data to glean hidden thematic relationships by using reciprocal hyperlinking as evidence of mutual relationships. Kumar, Raghavan and Rajagopalan and Tompkins (1999) used a process dubbed "trawling" to crawl the Web for evidence of interlinked Web pages in order to identify over 100,000 emerging communities. The authors mined the Web through link analysis of over 200 million Web pages archived from the Web site Alexa in order to derive these hidden or emerging community structure patterns. The authors used

cocitation, a notion derived from bibliometrics (Newman, 2003; Price, 1965), which espouses the idea that pages that are related are frequently referenced together. Applying 18-month old crawl data to the then present Web, the authors found that 70% of the communities were still alive.

Some studies have sought to explicate more closely how the notion of preferential attachment relates to scale-free networks such as the World Wide Web, and many question the applicability of preferential attachment as textbook theory. Dorogovtev et al. (2000) hypothesized that before the operation of preferential attachment, initial attractiveness governs the probability that "young" sites attract new links. After that initial attractiveness and in keeping with the concept of preferential attachment, the number of incoming links or the Web site's connectivity becomes the prime determinant influencing whether a new link points to a given site. Pennock, Flake, Lawrence, Glover, and Giles (2002) noted that the power law departs from its biasness when subcategories of pages are taken into account. The authors note that the rich-get-richer phenomenon is tempered by a mixture of preferential and uniform attachment in such spheres as scientist homepages and university homepages, while for such industries as newspapers and company homepages, the rich-gets-rich principle still dominates. Adamic and Huberman (2000) found no correlation between age of a site and its number of links leading them to conclude that it is important to take into account the individual differences in a node's attractiveness.

APPLYING SOCIAL NETWORK ANALYSIS TO THE BLOGOSPHERE

The blogosphere is an example of a World Wide Web network, and as such, can be viewed as a special case of a scale-free network, obeying many of the principles of growing networks as outlined by Barabasi and Albert (1999). The blogosphere can be

considered a World Wide Web network, a complex and large network that is at yet difficult to measure in its entirety. Several studies confirm the division of the blogosphere into diverse issue publics (Blogads, 2006; Pew Internet and American Life Project, 2006). The continuous growth of the blogosphere network has made it difficult to study the blogosphere as a single social network: as a result, many scholars have resorted to studying segments of the blogosphere through using Web crawls or data mining strategies of random samples.

In its entirety, the blogosphere is clearly an open, growing network. Sifry's *State of the Blogosphere* and *State of the Live Web* (2007) reports indicate a continuous, steady growth in the practice of blogging on a worldwide basis. Though the blogosphere shows signs of slowing down (Sifry, 2007), the network is still open to the entrance of new nodes, or bloggers. As Sifty (2007) noted, the slower rate of the blogosphere's growth is a mathematical principle based on the law of large numbers—it took more time for the blogosphere to double its growth from 35 million to 70 million (320 days) when compared to the time it took to double from 5 million to 10 million (180 days).

The blogosphere also grows by preferential attachment, a scenario that has been witnessed since the growth of the blogosphere took off in 1999. This preferential attachment has resulted in the phenomenon of clustering, with the blogosphere broken into a series of hubs—'A-list' blogs that command the majority of the attention (Thompson, 2006). A look through such blog search engine aggregators such as *Technorati* and the *Truth Laid Bear* reveals the phenomenon of top or popular blogs that dominate in the high-tech or political blog genre cluster. These blogs function as the blogosphere's hubs, and their disproportionate traffic has resulted in the phenomenon of power laws for both incoming links to and outgoing links from these blogs.

Strong evidence exists that the blogosphere obeys the laws of scale-free networks, with a few blogs gaining the majority of attention. Examining Web blog traffic, Kottke (2003) found power law trends in incoming links to the top 100 blogs as derived from Technorati data. Using data from the Blogosphere Ecosystem to examine whether there was a power law distribution of links among 433 blogs, Shirky (2003) found that the top dozen bloggers or less than 3% of the bloggers examined were responsible for approximately 20% of the incoming links.

These popular blogs, often blogs located at the polar opposite extremes of the partisan divides, have become a convenient way for the mass media to take a temperature test of the blogosphere as opposed to visiting the 'long tail' of niche media blogs (Drezner, 2004; Drezner and Farrel, 2004). In a survey of 140 editors, reporters, columnists, and publishers, Drezner and Farrel (2004) found that the top ten blogs were responsible for more than 56% of the mentions and the top five for 56% of mentions, with popular bloggers Andrew Sullivan, Mikey Kaus, and Josh Micah Marshall among the top five blogs blogs. Studing agenda setting dynamics between mass media and the political blogosphere, Cornfield et al. (2005) focus on the top 32 political blogs, 16 left-leaning and 16 right-leaning, as well as eight other blogs which they refer to as "general."

This growth in this blogger aristocracy can be said to threaten the democratic potential of the blog as a platform and the lack of diversity problem has been well noted in the progressive blogosphere. The top 50 political blogs have remained almost identical since 2006, and as it relates to the progressive blogosphere, readership and traffic have stagnated since September/October 2005 (Sifry, 2007). Though there is academic attention to the 'long tail' of niche media, a phenomenon that grew with the growth of blogging, Bowers (2007) refers to the progressive blogosphere as having a "short head". According to Bowers (2007), roughly 1% of progressive, political blogs receive 95% of

all progressive blogosphere traffic while 99% of progressive political blogs receive less than 5% of all progressive, political blogosphere traffic.

Many of the reasons for this seemingly lack of democracy in the political blogosphere relates to financial costs of running a successful political blog. Bowers (2007) notes that it is much more difficult for a new political blog to break into the A-list of blogs because of the increased maintenance costs and entrance costs in running servers to host increased traffic. Overhead is such a barrier to entry into the top political progressive blogosphere that it is difficult for a new independent individual actor to join the elite ranks of the national progressive political blogosphere. Citing that the "only reason a blogosphere elite has come into existence is because the progressive, political blogosphere now effectively engages in a far more expansive range of political and media activities than it did just three or four years ago," Bowers noted that the problem of diversity and the blogosphere will only be solved when more writers who can speak to, and attract the regular readership of, neglected portions of the political blogosphere's target audience, emerge in prominent locations within the political blogosphere."

These power law principles on the Web justify the concentration on primarily the elite blogs across the political spectrum in this dissertation. One departure from prior studies will be the focusing on moderate blogs in an effort to test how a lack of solid partisan identification impacts the flow of information and social influence. These moderate blogs, elite in their own ideological spectrum as centrist blogs, remain marginal to the popular partisan political blogosphere. Yet, it is possible that as a middle ground for diverse information pools, the moderate blog network could provide the greatest potential for democratic conversation (McLeod et al. 1996; Mutz, 2002; Price, Capella & Nir, 2002;).

HOMOPHILY AND GROUP POLARIZATION

Homophily is directly related to how partisan political networks form in the political blogosphere. The homophily principle posits that people are attracted to similarity instead of difference—a concept which has ramifications for any discussion of the structure of networked blogosphere. The first homophily study has been traced to Lazersfeld and Merton's (1954) study on friendship processes in Hilltown and Craftown. In this study, the authors identified two types of homophily: status homophily due to demographic factors and value homophily resulting from shared beliefs and values. Homophily theory, also known as the "birds of a feather flock together" principle, cites geographical, organizational, and role foci as powerful structural forces that induce homophily in social networks (McPhearson, et al. 2001). The tendency to self-select into homogenous communities along such shared characteristics as age, gender, race, class, and well as to such shared life stations as marriage, friendship, work, and co-membership has resulted in a powerful tendency to network along homogenous lines (McPherson et al. 2001). For example, the tendency to self select into communities based on gender (Fisher, 1948; Fisher & Oliker, 1983; Huffan & Torres, 2002; Lazarsfeld & Merton, 1954; Mardson, 1987; McPherson, Smith-Lovin & Cook., 2001; McPherson & Smith-Lovin, 1986; Moore, 1990; Ibarra, 1992, 1997; Lin, 1999; Lincoln & Miller, 1979) has been cited as one reason for the lack of female bloggers in the top A-lists of popular political bloggers (Harp & Tremayne, 2006; Meraz, 2008; Ratcliffe, 2004).

As it relates to homophily and partisan affiliations, a large body of work attests to the breakup of issue publics into homogeneous groupings based on political ideology. Several studies document the importance of homogeneous thinking on the ability of majority opinion and minority opinion members to influence political discussion in conversational networks (Huckfeldt, 2001; Huckfeldt, Beck, Dalton, Levine & Morgan,

1988; Kenny, 1994; Huckfeldt & Sprague, 1987, 1988, 1991; Scheufele, Nisbet, Brossard & Nisbet, 2004). In a series of studies on face-to-face, dyadic political discussant networks, Huckfeldt and Sprague (1987, 1988, 1991, 1998) found that political minorities' opinions were consistently misinterpreted and undercut by majority participants and that disagreement was less tolerated between majority and minority dyads when compared to majority and majority dyads embedded in ideological political environments. Mardsen (1987) found evidence to support the persistent disadvantaged position of minority participants in majority spaces, a finding in keeping with the spiral of silence mass communication theory (Noelle-Neumann, 1973, 1980).

The principle of homophily is closely connected to the concept of group polarization. Like the principle of homophily, group polarization is intimately connected to how social networks form in partisan environments. Group polarization is often called the 'echo chamber effect' or the 'cocooning effect' in blog environments. Related to groupthink philosophy, Sunstein (2000, 2002) cited that the Internet could be harmful to democracy because of the role it can play in fragmenting, insulating, and encouraging enclave deliberation through filtering both what is produced and what is read. Resulting in daily editions of the "Daily Me" (Sunstein, 2001), Sunstein highlighted the most extreme result of cyberbalkanization—group polarization and the movement to more extreme positions than that held at predeliberation due to the effects of limited argument pools and perspectives, and because of the powerful hold of social influence. This fracture of the public sphere into several "counterpublics or enclaves" is viewed as a threat to democracy because of negative informational cascades that can result when the group remains insulated and homogenous in both perspective and composition. Balkin (2004) espoused that the blog's promotion of cybalkanization and group polarization is overstated and hyped. Blogs gain their foundation on criticism, making it difficult to cite

things that are not agreed with. According to Balkin (2004), the Internet allows a wider distribution of ideas as opposed to the unidirectional mode of delivery of mainstream media, resulting in a continuous bringing together of people who disagree.

Studies have found a tendency for cyberbalkanization in the political blogosphere, evidenced by the stratification of political blogs along partisan lines. It is very common to speak of the conservative blogosphere, the liberal or progressive blogosphere, and the centrist blogosphere, the latter being the least popular political blog form. Adamic and Glance (2005) found little overlap in the URL citations in blogroll and page citation links between the conservative and the political blogosphere, suggesting that there is a cocooning effect among those bloggers who adhere strongly to a partisan perspective. Other studies have found evidence of partisan networks in the political blogosphere; Tremayne et al. (2006) found that the war blogosphere is stratified along partisan lines, while Meraz (2005) saw partisan divisions in a study on the hyperlinking decisions of bloggers who were given press passes to blog the 2004 Republican and Democratic national conventions.

It is clear that the use of the blog to enhance democracy is threatened by the strength of hubs, which seems to confer status on a few political blogs while shutting out the remainder of the blogs from public visibility (Harp & Tremayne, 2006). However, it can be argued that viewing the public sphere as one sphere is a limiting perspective; instead, viewing it as several publics increases the ability of the blogosphere to contribute to a form of emergent democracy—one where an audience of 10 to a blog can make a difference in terms of civic engagement, public voice, and political participation (Ito, n.d.).

STRENGTH OF TIES: WEAK AND STRONG

In the language of network theory, ties connect nodes in a network. These ties differ depending on whether the nodes reciprocate their connections. Nooy et al. (2005) note that the ties or lines that connect nodes can be directed (non-reciprocated) or undirected (reciprocated). Directed ties are called arcs while undirected ties are called edges. Nooy et al. (2005) note that directed ties or arcs represent ordered pairs of vertices in which the first vertex is the sender (the tail of the arc) and the second the receiver of the tie (the head of the arc). Edges stand in sharp contrast to arcs: edges are devoid of direction and edges typically join unordered pairs of nodes. In the blogosphere, it is typical to talk about directed ties, since one blog usually connects to another blog via hyperlinks. On many occasions, blogs reciprocate hyperlinks in an effort to maintain community and conversation.

The impact that the strength of ties bears on the efficiency of a network as an information source has been debated in academic literature. The strength of the connection is based on whether the tie is based on friendship or mere acquaintance between nodes, and this connection is also defined by the amount of time, emotional intensity and extent of reciprocity of the tie. The idea that there is strength in weak ties was first introduced by Mark Granovetter. According to Granovetter (1973), whatever is to be diffused can reach a larger number of people and traverse greater social distances if passed through weak as opposed to strong ties. Granovetter's rationale exists in the simple fact that strong ties often connect very similar people together. The result of this similarity is exposure to relatively homogenous information; in sharp contrast, weak ties are more likely to move in different informational circles, thus providing access to more diverse information than what is already known. Granovetter (1982) noted than when a social system is lacking in weak ties, the group will be handicapped by the slow spread of

new ideas and information, resulting in a fragmentation of the group by such factors as "race, ethnicity, geography or other characteristics." In a review of the strength of weak ties literature, Granovetter (1982) found general support for the importance of weak ties in bridging intergroups (different groups), and through a case study of employment options, the author highlighted the significance of weak ties in providing job prospects for those seeking a job.

Though the strength of weak ties has been lauded in several academic publications, it has always been known that there is strength in strong ties. Chapter 3 reviewed studies that have dealt with the two-step flow, a theory that posits that opinion leaders disseminate information to followers. A large body of literature from organizational contexts suggests that strong ties play a vital role in promotion and job mobility (Podolny & Baron, 1997), particularly as it relates to gender and job advancement in the workplace (Ibarra, 1992, 1997). In some cases, evidence has been found for the greater efficiency of strong to weak ties (Bian, 1997, Krackhardt, 1992).   In the political environment, strong ties can also play a significant role in persuasion and information exchange (Knoke, 1990). Knoke (1990) found that more frequent discussion of politics with intimates resulted in greater levels of political participation. This author found that when party identification was factored out or controlled, the partisan composition of the network strongly influences its participation.

This dissertation focuses on a relative strength of strong ties in partisan circles. With the majority of literature focused on elite political blogosphere networks culled from left-leaning and right-leaning ideological perspectives, this dissertation expands academic discourse to also shed light on the role of moderate networks in the flow of information and influence. Moderate political blogosphere networks are generally weakly tied to both the left-leaning and right-leaning blogger networks. Inclusion of the moderate

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network of political bloggers enables a test of the strength of strong to weak ties as it relates to social influence in networked politics.

CONTAGION IN NETWORKED ENVIRONMENTS

One structuring principle behind the formation of networks is an individual's cognitions about other people within the network. Contagion theories posit that communication networks expose individuals to other individuals, and this exposure increases the probability that network members are homophilous in beliefs, assumptions, and attitudes (Monge & Contractor, 2003). This tendency for the network to be similar is one reason for group stability (Carley, 1991).

Monge and Contractor (2003) link several related theories to the contagion model including social information processing theory (Fulk, Steinfield, Schmitz & Power, 1987), social influence theory (Fulk, Schmitz & Steinfield, 1990; Marsden & Friedkin, 1993), structural theory of action (Burt, 1982), and social cognitive and learning theories (Bandura, 1986). A large body of research exists to support the operation of a contagion mechanism in interorganizational and intraorganizational levels within institutions. Evidence for the presence of contagion mechanisms exists in general workplace attitudes (Friedkin, 1984; Rentsch, 1990; Walker, 1985) and in attitudes towards technologies (Fulk, Schmitz & Ryu, 1995; Rice, Grant, Schmitz & Torobin, 1990; Schmitz & Fulk, 1991). Contagion is also an operating principle behind the diffusion of innovations, a theory proposed by Everett Rogers (2003) to explain the spread of innovation and ideas. In responding to criticisms made against the contagion mechanism, Monge and Contractor (2003) note that the process of contagion must be amended to 1. include the principle of reflected exclusivity, which avoids inevitable homogenization of the entire

network, 2. include threshold levels that vary across actors, 3. and calibrate the importance of social influence based on the uncertainty of the situation.

This dissertation questions how the contagion mechanism works within partisan political bloggers circles. Do bloggers of like minds, prefer to discuss issues that are more popular among other bloggers who share their partisan outlook? Do bloggers attach attributes to issues based on a shared outlook, as determined by their political ideologies? Do bloggers of shared partisan affiliation show more success in setting each other's agenda due to shared group dynamics? The process of contagion will be applied in an examination of information flow in the networked political blogosphere.

SYNTHESIZING DISPARATE THEORIES

Social network analysis is a theory that deals with the structure of relationships. Within the networked political blogosphere, social network analysis provides a strong toolkit of methodology and concepts that can be readily applied to the diffusion of information among blog actors. Social network analysis readily deals with such issues as power and influence, and provides methods for testing social influence based on an actor's position in a network. But, the question can be asked, how does social network analysis relate to mass communication theory? It is important to outline how social network analysis relates to preexisting mass communication theory. In this particular study, which integrates and freely utilizes both theories to explain how information is diffused between blog networks and mass media, it is vital to discuss how social network analysis relates to such mass communication theories as the two-step flow, agenda setting, and gatekeeping. Making such a connection can foster deeper relationships between this interdisciplinary theory and existing mass communication theory in future scholarly research.

Social network analysis is intimately connected to the two-step flow theory. As chapter 3 highlighted, the two-step flow theory is one of social influence, positing that opinion leaders intercept mass media messages and then interpret and evaluate this information to followers (Berelson, Lazarsfeld, & McPhee, 1954; Katz, 1957; Katz, & Lazarsfeld, 1955; Lazarsfeld, Berelson, & Gaudet, 1948; Merton, 1949). Modifications to the theory include the addition of more structural positions, aside of the opinion leader, to include the role of marginals in the network (Weimann, 1982, 1983). The direct flow from mass media to public, taking light of niche media, might suggest a one-step flow (Bennett, 2006). Other findings suggest that mass media influence and social influence in the two-step flow theory can be separated based on whether one is referring to cognition or behavioral consequences. Mass media can provide the first, vital informational platform for discussion. The cognitive effect of mass media is then reinforced through social influence, the latter being the change agent for attitude and behavioral modification (Katz, 1960; Lang & Lang, 2006).

Social network analysis is intimately connected to the two-step flow theory. While the two step flow theory, in its original theorizing, accounted for two levels of influence, social network analysis can take account of multiple layers of social influence, moving from individual-level node analysis to dyadic, triadic, cliques, and subgroup influence (Monge & Contractor, 2003). Social network analysis has much in common with scholars who have suggested modifications to the two-step flow to take account of alternative structural positions (Bennett, 2006; Weimann, 1982, 1983). The notion that there are central positions in the network that result in advantageous positioning for some individuals is also captured by the centrality measures in social network analysis— centrality being determined by three components, degree, closeness, and betweeness of nodes relative to other nodes (Freeman, 1979). Work on the strength of ties—with

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varying levels of influence determined by whether ties are strong or weak—is also connected to the two-step flow theory. The strength of strong ties has been shown to have a big influence in information transmission and ultimately social influence (Bian, 1997, Krackhardt, 1992; Knoke, 1990; Podolny & Baron, 1997). But, like scholars who have argued for the importance of marginals in the two-step flow theory, the strength of weak ties has been shown to play a vital role in bridging information between intergroups (Granovetter, 1973, 1982). In this dissertation, moderate bloggers can represent the weak tie connection to the partisan political blogosphere.

Social network analysis deals with social influence as it relates to the spread of information, and in that sense, social network analysis is related to agenda setting. Agenda setting, as chapter 3 highlighted, was originally promulgated as a theory of media influence on public agendas (McCombs & Shaw, 1968; Shaw & McCombs, 1977; Weaver, Graber, McCombs & Eyal, 1981); however, this theory has been utilized to explain primary influence beyond the mass media to other central actors (McCombs, 2004). As it relates to the networked political blogosphere, social network analysis can refer to both the influence of media entities (Cornfield et al. 2005) as well as non-media entities (Adamic & Glance, 2005) within a social network. Each influence, modeled as a node or actor, can be assessed, both as an individual and in relation to other nodes in the network.

In that respect, social network analysis can relate to both traditional agenda-setting studies that examine media influence, as well as agenda-setting studies that take a more flexible definition of the agenda setter. As it relates to the application of agenda setting in the networked political blogosphere, few studies to date have compared the relative strength of media to non-media entities (Cornfield et al. 2005; Reese et al. 2007) in the diffusion of information. Yet, agenda setting, which is what political blog networks

aim to achieve, is a vital theory in explaining the role and function of the networked political blogosphere.

Social network analysis has other conceptual similarities with traditional agenda-setting theory. The idea that only an elite segment of political blogs now wield major influence in the political blogosphere (Cornfield et. al. 2005; Drezner & Farrell, 2004; Stoller, 2007;) due to the simple organizing principles of power laws in social networks (Barabasi, 2002; Buchanan, 2002; Watts, 2003) is reminiscent of intermedia agenda setting as it relates to more traditional elite media on less traditional non-elite media entites (Reese & Danielian, 1989). In this dissertation, the effect of media agendas on blog agendas, blog agendas on media agendas, and blog agendas on blog agendas can all be captured by the term intermedia agenda setting.

Social network analysis is also intimately connected to gatekeeping concepts. As much social network analysis literature highlights, the structure of network connections impacts how information flows both within a network and between different networks. In World Wide Web networks, hyperlinking decisions are often powerful indicators of communities (Adamic & Glance, 2004; Meraz, 2006; Tremayne et al. 2006), particularly in the political blogosphere where issue publics segment based on ideological preferences (Adamic & Glance, 2004). As it relates to the political blogosphere, the gatekeeping consequences of hyperlinking decisions underlie the concern that some scholars have with groupthink and cocooning—both concepts that deal with the dangers of homogeneous thinking on democratic discourse (Sunstein, 2000, 2001, 2002).

As is evidenced by the relationship between social network analysis and traditional mass communication theory, it is proposed in this dissertation that social network analysis provides a new dimension to understanding social influence, both from the perspective of traditional media influence and from the vantage point of other actors

who wield political influence in World Wide Web networks. Social network analysis can reinforce and help explain patterns of social relations through its emphasis on networked relationships as opposed to seeing individuals as disconnected from issues publics. Its applicability in networked contexts can aid in expanding our understanding of the dynamics of information exchange in contexts where social influence is deemed a pertinent factor in shaping public opinion.

This dissertation now proceeds to outline the various hypotheses and research questions, using social network analysis and mass communication theory to predict and question the state of relationships both within the networked communities of the political blogosphere and between the political blogosphere and traditional mass media entities.

Chapter 5: Hypotheses and Research Questions

In an effort to test the agenda-setting impact of political blogs and traditional mass media on each other's agendas, as well as the significance of social influence among political blogs, this study proposes a series of hypotheses and research questions. These hypotheses and research questions pertain to several aspects of the content in political blog postings and traditional mass media articles and blog posts.

It is important to note that the blogosphere gains its networked characteristics due to the phenomenon of hyperlinking. Hyperlinking is the glue which connects one Web page to another, and the act of hyperlinking is a symbolic representation of a network connection. Each blog post has a permanent URL, and it is this URL, or permalink, that blogs use to connect back and forth to other blogs, permitting the growth of online conversation (Coates, 2003).

For the purposes of this dissertation, content is divided into hyperlink analysis and textual content analysis of the blog and news media content.

HYPERLINK ANALYSIS

One aspect of this study involves the analysis of hyperlink usage among the blogs. Previous studies have found that hyperlink analysis is an effective measure of gatekeeping decisions by news organizations (Tremayne, 2005a, 2005b, 2006) and blogs (Meraz, 2005; Reese et al 2007; Tremayne, 2006). Hyperlinks also provide an effective measure of agenda setting, as hyperlinks provide palpable and tangible representation of the sources and influences on blog content. Since bloggers often view hyperlinks as a way to be more transparent about the sources, raw material, media, and interpersonal influences on their content, hyperlink analysis can be an effective measure of media and

social influence on blog content. Through the choices in 'who to hyperlink to,' bloggers reveal the sources that are trusted and valued to them. Bloggers place significant importance on the act of hyperlinking: some blogs have gained their highly valued reputation as a direct result of their ability to hyperlink to emerging material on the Web. In the past, bloggers have used hyperlinking to devise threaded conversations on the oversights of the traditional media, leading to such high profile resignations as Trent Lott, Eason Jordon and Dan Rather (Edsell & Fuler, 2002; Humphries, 2004; Kennedy School of Government, 2004; MacKinnn, 2005b; Pein, 2005).

Though news organizations continue to increase their usage of hyperlinks within their news articles (Tremayne, 2006), it has been found that much of this increase is related to specific genres of content (Tremayne, 2006), an increased usage of internal hyperlinks (Deuze, 2002; Dimitrova et al. 2003), or simply to the growth that would be expected as a result of increased time on the Web (Tremayne, 2006). This lack of external hyperlinking by online news organizations in their news articles provides little raw material for scholarly attention to the phenomenon.

However, the recent uptake of blogging by traditional media newsrooms (Singer, 2004, 2006; Meraz, 2008) provides a new avenue to study the hyperlinking decisions of the online newsroom. Though traditional mass media was once hesitant to embrace blogging (Meraz, 2008), it is now common for most newspapers to host blogs as an avenue for their reporters and opinion columnists to write original material or publish raw material on their stories. To date, little academic work has been done on the content within traditional media news blogs. Early findings point to insular linking practices of the newsroom blog (Singer, 2004). This study aims to provide a more recent test of the usage of hyperlinks by the more elite newsrooms of the *New York Times* and the *Washington Post.*

Prior studies have found that blogs that share partisan ideologies are more prone to link to each other (Adamic & Glance, 2005; Cornfield et al. 2005). Though few studies track the linking practices of partisan blogs across different issue periods, this study still predicts that insular linking practices will continue to be the pattern, primarily among partisan blog networks. Providing a more robust test to most prior studies that capture one time point, this study advances the following hypothesis:

H1: Blogs that share partisan ideologies will be more likely to link to other like-minded partisan blogs as opposed to blogs outside their primary partisan ideologies

Within academic circles, little to no research has been conducted on the linking practices of moderate blog networks: the focus of most published studies on the political blogosphere is on the top tier or elite blogs (Adamic and Glance, 2005; Cornfield et al. 2005). There is good reason for the lack of academic focus on moderate blogs. Moderate blogs rarely make it to the top of popular political blog lists in the eyes of mass media (Drezner & Farrell, 2004).

Yet, moderate blogs could serve a vital function in promoting democratic conversation. Prior studies have found that heterogeneous networks are the best vehicles for promoting political conversation that leads to an increase in real-world civic engagement (McLeod et al. 1996; Mutz, 2002; Price, Capella & Nir, 2002). Because of their "in-between" state as blogs that adhere less to one strict partisan perspective, it is very likely that moderate blogs are less likely to be strongly tied to blogs from the left or the right. It has been shown that weakly-tied connections often provide more new information than that of strong ties (Granovetter, 1973, 1982). The moderate blog's weakly-tied connections to other partisan blogs should also carry through to media, and

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moderate blogs should show less of a tendency to link to media of a specific partisan ideology.

In the language of network theory, this in-between state can allow moderate bloggers to bridge more networks of media and blogs, allowing them to access a greater body of non-partisan content. The strength of the moderate's blogs weak ties should allow a moderate blog to have a more diverse and egalitarian form of linking practice, resulting in a more varied level of social influence as it relates to interpersonal connections with other bloggers. Prior studies have found that marginals in a network are able to bridge intergroups of different communities (Weimann, 1982, 1983). Unlike highly partisan networks, which are dominated by power laws such that only a few blogs gain the most attention (Kottke, 2002; Meraz, 2005; Shirky, 2003), it is felt that moderate blogs should also show less of a strong influence from any one subset of media be it traditional mass media or citizen media.

This study proposes the following hypotheses:

H2: Moderate blogs will be less likely than partisan blog networks to link in a partisan manner to other blogs.

H3: Power laws will be less pronounced in the moderate blog network than in the partisan blog networks such that there are more egalitarian linking practices and less domination of the network by hubs.

Modifications to the two-step flow suggest that opinion sharing among elites is a notable phenomenon in the process of social influence (Robinson, 1976; Troldahl Van Dam, 1965-6, 1966-7). As it relates to other structural positions in the network, previous studies have shown that marginal network members are depended on to import new

information into a network, while centrals are depended on to spread the new information introduced by marginals (Weimann, 1982, 1983).

In the language of network theory, several indicators exist to determine the centrality or importance of an actor in a network (Freeman, 1979). In this current sample, it is possible that blogs differ from each other by such indicators as closeness (distance of one blog from another blog), betweeness (ability of one blog to bridge other blogs) and degree (greater ties or connections as evidenced by the blog receiving more hyperlinks). As it relates to the above centrality indicators, it is most probable that moderate blogs will have the highest 'betweeness' score due to their reduced tendency to link to blogs of a specific partisan ideology.

This study proposes the following hypothesis:

H4: Moderate blogs are more likely to serve as bridges between the different partisan networks as opposed to partisan blogs.

Investigating partisan bias in news media has been a preoccupation of communication scholars for many years. Elite media such as the *New York Times* have often been accused of having a liberal bias. Similarly, several past studies on partisan political blog networks have found a preference among right-leaning bloggers to point to publications that they perceive to have more of a conservative bent (Adamic and Glance, 2005; Meraz, 2005). Avoiding discussions of which news media have a liberal bias, this study hypothesizes that partisan networks would have significantly different media preferences

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H5: Partisan blogs are significantly more likely to link to different as opposed to similar media entities.

Prior studies show that opinion leaders depend on mass media, particularly elite media as well as "outside sources" (Levy, 1978; Lin, 1973; Shah & Schufele, 2006). Elite media can be considered central actors to the agenda-setting function of the press: prior agenda setting studies have shown strong intermedia agenda-setting effects for more elite media on less-elite media (Reese & Danielian, 1989). As such, it is highly possible that traditional national media are viewed by bloggers as central to information. Yet, the blogosphere belongs to the realm of citizen media, and it is possible that bloggers feel more of a connection to other bloggers who share their unique, outside status as non-professional journalists.

The growth of online media has also expanded bloggers' media possibilities. With the growth of portal news, independent news outlets, news aggregators, and Web-only media publications, it is possible that bloggers may come to increasingly depend on other sources of news. The Web also increases the accessibility of national and local media, a reality which could have an impact on the elite reputation of traditional mass media

This study poses the following research questions:

R1: To what extent do the *New York Times* and the *Washington Post* maintain their elite status as agenda setters in the political blogosphere?

R2: To what extent do bloggers depend on citizen versus traditional media?

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ISSUE AGENDA SETTING

At its most general definition, agenda setting is concerned with the transfer of salience from one agenda to another. In terms of media agenda setting and the public agenda, the theory predicts that elements prominent on the mass media agenda become prominent among the public. In this study, the public is operationalized as the political blogosphere. Putting this dissertation's study into perspective, several studies have replicated success at media issue agenda-setting in the online environment (Althaus & Tewksbury, 2002; Wang, 2000); one study has shown the media's agenda-setting power at the issue level in the political blogosphere (Cornfield et al. 2005).

To begin testing issue agenda setting dynamics between the blogosphere's diverse ideological spectrums and traditional media, this study begins by examining the correlation in issue agendas among the different media and blog networks. Evidence of strong correlations could provide an initial step towards testing issue agenda setting. Correlating issue agendas could also provide vital information on social influence, an aspect that tests the operation of the two-step flow as it relates to opinion sharing among elites in the blog and media environment.

If there is social influence at the issue level among blogs, it is feasible to assume that blogs that share partisan ideologies will be more likely to share a related media agenda. This study advances the following hypothesis:

H6: Blogs that share partisan ideologies will have a more correlated issue agenda than the issue agenda between blogs of different partisan ideologies.

Moderate blogs, which primarily exist outside partisan networks, claim affiliation to no one blog network. As such, this study hypothesizes that moderate networks will have an issue agenda that correlates most closely with the media agenda

H7: Moderate blog networks will have an issue agenda that correlates more closely with the media's issue agenda than with partisan blog networks.

Finally, at the issue level, this dissertation seeks to examine the correlation in issue agendas both between the two traditional media entities the *New York Times* and the *Washington Post,* as well as the correlation in issue agendas between the newsroom's online newspaper and its blog. In an effort to test how social influence operates with elite media newsrooms, this dissertation poses the following four research questions:

RQ3: To what extent is there agreement in media issue agendas between the *New York Times* and the *Washington Post?*

RQ4: To what extent is there agreement in media issue agendas among the *New York Times'* blogs and the *Washington Post* blogs?

RQ5: To what extent is there agreement in the media issue agendas among the *Washington Post* blogs and the *Washington Post* newspaper?

RQ6: To what extent is there agreement in the media issue agendas among the *New York Times* blogs and the *New York Times* online newspaper?

This study also tests agenda setting influence through examining the movement of agendas between the media and the blogosphere. Of further interest is the agenda setting

influence of blogs across the different social networks. This study hypotheses that the media will be more successful at setting the blog's issue agenda than the reverse level of influence. As prior authors have indicated, the media remain the central disseminator of the important issues of the day (Lippmann, 1923; McCombs & Shaw, 1972). Mass media are in a better structural position to disseminate information to the public due to their access to bureaucratic officials as a result of the "press pass." As two-step flow theory suggests, it is possible that elite opinion leaders look to mass media for information while leaning more towards interpersonal channels for modifying behavior and attitudes (Katz, 1960; Lang & Lang, 2006).

This study advances the following two intermedia agenda setting hypotheses:

H8: Media will be more likely to set the issue agenda of blogs than blogs will be at setting the issue agenda of media.

H9: Media will be more likely to set the issue agenda of blogs than other blogs will be at setting the issue agenda of blogs.

Can blogs set the media's issue agenda? One study found that blogs exert influence on the media's issue agenda; however, the greater influence was from media to blogs (Cornfield et al. 2005). This study poses the following research question:

RQ7: To what extent are blog networks successful at setting the media's issue agenda?

Hypothesis eight and nine make no distinction between partisan blog networks. Yet, one can question the difference in the relationship between the partisan blog

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networks and elite traditional media entities. The right-leaning blogosphere was born during the period of widespread skepticism towards mass media, and this anti-media stance has remained through to this period. The right-leaning blog's watchdogging of the press is more pronounced towards such elite media institutions as the *New York Times* and the *Washington Post.* Like the right-leaning blogosphere, left-leaning blogs have also cultivated a suspicion towards elite media newsrooms, which they commonly refer to as "beltway media." This seeming anti-media stance is delicately balanced by the blog's strong dependence on media for the talking points of the day.

As such, this study poses the following research question:

RQ8: To what extent does traditional media exert unequal issue agenda-setting influence over the two partisan blog networks?

ATTRIBUTE AGENDA SETTING

Similar to talk radio, opinion pieces in the newspaper, or 'spin-room' commentary on cable news programs, political blogs have gained a reputation as spin-doctors and political pundits. This reputation is due to the fact that blogs work to frame the news events of the day. One study has found that blogs were successful in setting the attribute agenda of traditional media (Zhou & Moy, 2007). It is reasonable to assume that blogs work in interpretation and that attribute agendas are actively being transferred from blogs to their reading public, as the latter come to political blogs to read their interpretation on current issues and events.

There is some evidence from the two-step flow theory that interpersonal communication works on the information provided by mass media content (Troldahl, 1966-7). Other studies have found that interpersonal communication is dependent on

mass media (Meraz, 2006; Scheufele, 2002; Scheufele & Nisbet, 2002; Simon & Xenos, 2000). As such, it is possible that bloggers depend on mass media to provide the issue, but depend on their own partisan perspectives in attaching attributes to that issue. It is also reasonable to assume that these perspectives on issues are divided along partisan lines in those blog networks that adhere to a strict left- or right-leaning perspective.

As a first step in determining how social influence works in the partisan political blogosphere, this study advances the following hypotheses:

H10: Blogs that share partisan ideologies will have a more correlated attribute agenda within their networks than outside of their partisan blog networks.

H11: Blogs that share partisan ideologies will have a more correlated attribute agenda than the correlated agenda between traditional mass media and partisan blog networks.

Because moderate blog networks can claim limited affiliation to either partisan sphere, it seems reasonable to conclude that moderate blogs would more readily accept mass media's attribute framing of the issues. As such, this study makes the following hypothesis:

H12: Moderate blog networks attribute agendas correlate more highly with the media agenda than with partisan blog agendas.

These hypotheses and research questions were tested against a blog sample of 18 independent political blogs (6 left-leaning, 6 moderate-leaning, and 6 right-leaning), two elite traditional media online newspapers (the *New York Times* and the *Washington Post),*

two elite traditional media online blogs (the *New York Times'* blogs and the *Washington Post's* blogs) and in relation to three issues selected from the latter half of 2007.

Chapter 6: Methodology

In an effort to test the several hypotheses and research questions advanced between the networked political blogosphere and traditional media, this dissertation employed two primary methodologies: content analysis and social network analysis. The former method was primarily used for textual analysis of the blog and article content while the latter method was based on an analysis of hyperlinks among the sample of eighteen independent blogs and traditional media blogs. Both forms of analysis sought to capture the dynamic of agenda setting influence and social network influence between traditional media and blogs and among the networks of political blogs.

In 2000, McMillan (2000) made a case for employing the technique of content analysis to Web-based material by reviewing the then-19 studies that employed this methodology to online material. Though the amount of studies that utilized this technique for Web-based content has increased dramatically since 2000, McMillan provided five important guidelines for applying content analysis to studies in the online environment. According to McMillan (2000), researchers who utilize content analysis techniques to Web-based content much first formulate the research question. The second step is to select the sample, and the third step is to define the categories, time frames, coding units and context units. The fourth step is to train coders and check the reliability of the work and the fifth step is to analyze and interpret the data.

In keeping with McMillan's (2000) outline, this chapter explains this study's adopted methodology through reference to McMillan's second, third, and fourth steps for conducting content analysis on World Wide Web content. Chapter five outlined the hypotheses and research questions advanced in this study (McMillan's first step), while

Chapter 7 turns attention to the analysis and interpretation of the data (McMillan's fifth step).

BLOG AND TRADITIONAL MEDIA SAMPLE SELECTION

This dissertation sought to extract a sample of elite political blogs across the ideological spectrum from the networked political blogosphere. As Scott (1991) noted, the problem in selecting a sample of data in social network analysis studies concerns the "boundedness of social relations and the possibility of drawing relational data from samples." The difficulties in achieving generalizability from social network sample data have resulted in the attempt by many scholars to study entire networks. Hanneman (n.d) noted that social network analysts rarely draw samples in studying networks due to the fact that actors in social relationships due not exist independently from each other. As such, Hanneman (n.d.) concluded that social network analysts often study whole populations through census approaches as opposed to drawing a sample for study. The boundaries for such a network study would be those imposed by the actors themselves, existing as naturally occurring boundaries as dictated by the social relations within the network. Yet, other authors note that most networks do not exist in abstraction, even when networks are defined by such set criteria as geographical locality. The assumption that a network can be fully bounded by physical or relational criteria has been widely critiqued (Laumann et al. 1983; Stacey, 1969).

As it relates to the political blogosphere, it is difficult to study the full range of political blogs. Sifry (2007) has provided data to support the continual expansion of the blogosphere since his first measure of it in 2004, and as it pertains to the genre of political blogs, there are millions and millions of blogs across the diverse ideological spectrum. In studies that examine thousands of blogs and Web sites, sophisticated

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computer algorithms are designed to enable Web crawls of these blogs. In these studies, many of the relationships between blogs are reduced to hyperlink analysis of connections, using these connections as a substitute for cotent analysis of the text. Most of these studies make no claim to provide a comprehensive listing of Web community. With the awareness that a node in a network can only be found in such studies only through the presence of a hyperlink, it is possible that many of these studies can only achieve partial comprehensiveness. Additionally, the World Wide Web, as a growing network, can only be studied at any one moment in time. Most studies that devise sophisticated computer robots to conduct Web crawls heavily rely on old data, thus hindering the comprehensive claims to such studies.

In selecting the network boundaries for a study, Scott (1991) cautioned that the selection of relational data should be based on "theoretically informed decisions about what is significant in the situation under investigation." Through using theory to guide network selections, Scott (1991) notes that the choice of a network boundary can be informed by either a positional, reputational, or an affiliation approach. Using a positional approach, nodes are selected by first identifying the groups of interest and then sampling occupants or members of the group. Common in this type of study is the selection of elite nodes in a network's naturally occurring subgroups, and Scott rightly noted that in such studies, it is "important that researchers have theoretically and empirically justifiable reasons for the inclusion and the exclusion of particular positions."

Another method of selecting the network boundaries is by recourse to reputation. Using the reputational approach, the network analyst selects nodes for study based on selected nominees as determined by other knowledgeable informants. The choice of the informant should also be based on theoretical and empirical parameters which are possibly independent of social relationships in the study. Finally, network boundaries

could be determined by events or activities. Such activities and events are independent of social position or organizational membership of the social actors, with the network boundaries being defined solely by the nodes affiliation to that activity or event.

This dissertation used both a positional and a reputational approach to the selection of elite blogs within ideological political affiliations. The decision to concentrate analysis on elite blogs (positional approach) was taken for a variety of reasons. Past studies show that media tends to look at the blog elites when adopting blog agendas (Cornfield et al. 2005; Drezner & Farrell, 2004; Marlow, 2004). Since this study was based on agenda setting between media and blogs, as well as agenda setting among blogs, it was felt that the choice of blog elites was justified in this scenario. Additionally, the choice of blog elites, within ideological spectrums, was also theoretically justified by this dissertation's study of opinion sharing among elites, as defined by the two-step flow theory. Blog elites demand a high readership among Internet audiences, rivaling the audiences of traditional media newsrooms on the Web. Since little has been done on agenda setting in political blog networks, it was felt that beginning with a study of opinion sharing among elites would be a good starting point in the study of social influence in the political blogosphere.

To select the blog sample of elite blogs across the ideological spectrum, reference was made to blog aggregators that provide listings of the most popular blogs, including political blogs. Using quantitative techniques, the most popular blog listings from *Technorati, the Truth Laid Bear,* and *BlogPulse* were correlated in an effort to identify a listing of the most elite blogs within partisan spectrums. All three aggregators provide separate listings of popular blogs based on individualized computer algorithms for determining Web site popularity. Though each aggregator site employs its own algorithm, the popularity of blogs is primarily determined by a blog's reputation,

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garnered through appeal to two primary factors: a blog's Web site traffic and the amount of links that point to it.

Using quantitative techniques to compare the popular blog listings within these three sites, six popular blogs from the left-leaning blogosphere and six popular blogs from the right-leaning blogosphere were selected. These twelve blogs from the left-leaning and right-leaning blogosphere comprised the following: *The Daily Kos* (left-leaning), *Crooks and Liars* (left-leaning), *Think Progress* (left-leaning), *Talking Points Memo* (left-leaning), *The Huffington Post* (left-leaning), *FireDogLake* (left-leaning), *Instapundit* (right-leaning), *Michelle Malkin* (right-leaning), *Hot Air* (right-leaning), *Little Green Footballs* (right-leaning), *Powerline* (right-leaning) and *Captain's Quarters* (right-leaning). Though these twelve sites did not occupy the same relative position of power in each aggregator (one site could be the top blog in one aggregator and be third most popular in another), there was broad agreement that these twelve political blogs are among the most popular blogs with left-leaning and right-leaning blog readers and writers.

The selection of moderate blogs involved a more complicated methodology than that utilized for selecting left-leaning and right-leaning blogs. With the exception of the one moderate blog, *The Daily Dish,* authored by Andrew Sullivan who now works for *The Atlantic* periodical, moderate blogs rarely make it to the most popular blog listings. Elite blogs within the moderate blogosphere remain elite only within their somewhat neutral ideological spectrum; outside this spectrum, it is rare to associate a moderate blog with high Web site traffic. This phenomenon is primarily due to the unique history of the political blogosphere, a history outlined in Chapter 2 which tracks the growth of the US political blogosphere alongside the development of real-world US political issues.

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In an effort to select moderate blogs for this study's sample, several indicators were utilized, with quantitative techniques employed to highlight the blog sites that were most popular. Popular moderate blogs were identified through the following techniques: a. presence in the three aforementioned aggregators (*Technorati, Truth Laid Bear,* and *BlogPulse*); b. popularity in the 'Moderate Blog Advertising Network,' a network listing the most popular moderate blogs and the dollar amount to advertise on each blog present in the network; c. nomination in the Weblog Awards, a popular blog contest running since 2003, which takes net nominations for the most popular blogs, including those writing about politics; and d. frequency of appearance in blogroll listings within both elite partisan popular blogs and within the blogrolls for other moderate blogs. Through utilizing these four techniques, the following sample of moderate blogs was identified for study: *Donklephant, The Moderate Voice, The Daily Dish, The Gun Toting Liberal, Central Sanity,* and *The Van Der Galien Gazette.* In sum total, 18 blogs were selected for analysis, with six selected from each ideological spectrum (left-leaning, moderate, and right-leaning)

The choice was made to examine two online versions of traditional newspapers: The *New York Times,* and the *Washington Post.* Prior studies have found that elite newsrooms, particularly the *New York Times,* are an agenda setter for less elite news media. Though bloggers have more diverse media sources than these elite traditional media outlets, this study made the assumption that prior findings about the intermedia influence of elite media newsrooms would result in a shared media agenda across the elite to less elite media newsrooms. This study, which involved both first-level and second-level agenda setting, would thus be most effective if attention were paid to the newsrooms that set the agenda for most other mass media. Since this study involved a comparison of media framing of specific events, sufficient justification can exist for the

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usage of the *New York Times* and the *Washington Post* primarily due to their agenda setting influence on other less elite media newsrooms.

Web versions of both newspapers were used for the mass media agenda. The *New York Times* made a decision in July 2007, 2007, to open its entire archive of Web content and repurposed newspaper content for free public consumption. Similar to the *New York Times,* the *Washington Post* permits backdated searching through its archive as a free service for the first 60 days from a current date, with older articles available for purchase. Unlike the *New York Times,* the *Washington Post* has always permitted free access to its online content for an unlimited period of time; however, the Web archive only permits a 60-day free search. However, this limited-day search in no way affects the fact that the Washington Post content is completely free and accessible to the public.

As of 2005, many traditional media newsrooms have begun to use blogs to deliver news and opinion (Meraz, 2008). The *Washington Post* has been at the forefront of experimentation with citizen media, and was one of the first newspapers to embrace blogging. The *New York Times,* more reticent to allow its reporters and columnists to blog, now hosts several blogs, ranging from the political genre to entertainment, fashion, and travel. In an effort to understand the role of these political blogs and their influence on citizen media, this study also examined the blog content of both the *New York Times,* and the *Washington Post.* Included in this study were the political blogs *The Caucas, The Lede,* and the *Opinionator* for the *New York Times,* and the political blogs *White House Watch, Bench Conference, Achenblog, Early Warning, Think Tank Town, The Fix, On Balance,* and *OFF/Beat* from the *Washington Post.*

TIME FRAME AND ISSUE SELECTION

In order to study the agenda setting dynamics between mass media and blogs, as well as the social influence of blogs on each other's agenda, it was important to follow the development of issues across both blogs and the media. The decision to examine both the appearance of the issue on the media and blog's agenda, as well as the attributes of that issue, made it important to select issues that were politically charged enough to inspire conversation in both the traditional media outlets and in the blogosphere.

As opposed to hand selecting specific issues, it was felt that following a select time period would provide a better example of how issues rise and fall from media and blog agendas. Such an approach would provide a non-biased methodology to the selection of issues for analysis through selecting those issues that were most heavily discussed in both the blogosphere and the traditional media outlets. Such an approach also had the best chance of exposing the study to a diversity of issues within the blogs and mass media's political agendas.

The period July 20, 2007, to September 30, 2007, was selected as a time period for analysis of both blog and media content because of the extent of significant political events occurring in this time period. Some of the issues that occurred during the July 20 to September 20, 2007, time period were the testimony of Alberto Gonzales over the NSA wiretapping scandal, the resignation of Gonzales and Karl Rove (Deputy Chief of Staff to President George W Bush), the collapse of the I-35W Mississippi Bridge, the entrapment of six coal miners in Utah, the anniversary of Hurricane Katrina and 9/11, the Republican and Democratic presidential contender debates, the sex scandals of Republican senator Larry Craig, and the delivery of the Iraq Study Report by General Petraeus with the associated creation of the MoveOn 'Betray-Us' ad by the Democratic partisan political organization, MoveOn.

Two primary criteria played an important role in the ultimate selection of issues for study. Each issue needed to be bound by a definite start and end point, a factor important in measuring agenda setting effects. Issues also needed to be significant enough to provide notable discussion across all blogs and media. In order to examine which issues were the most heavily discussed, blog content and media content were examined through conducting keyword searches for the above issues through the aforementioned time period. In order to facilitate Web-based searching, dictionaries of keywords on a particular issue were developed. For example, searches for the Iraq issue would include such keywords as Petraeus, Iraq Study Report, and MoveOn, BlogPulse, a Web tool that provides trend searches of heightened blog postings around a particular issue, provided a general time frame of reference for searching the blogs and media for blog posts and articles written about the above issues. Figures 7 through 10 (Appendix B) provides the trend graphs from BlogPulse for the three issues in this study, with two trend graphs created for the Iraq Issue (Petraeus and MoveOn).

On conducting Web keyword searches for the said issues, an initial dataset of blogs and articles was downloaded for further inspection. Blog posts and articles were then discarded if the said issue was only tangential to the content. From the remaining dataset, frequency counts of mention of these issues in unique blog posts and mass media articles were generated. Using this methodology to decipher which issues were most prevalent in the blogosphere and traditional media, only three issues provided enough traction. These issues were the Alberto Gonzales hearings on the NSA wiretapping, the Larry Craig sex scandal, and Iraq, the latter focusing on the Petraeus report and the MoveOn 'Betray us' ad.

In an effort to determine the exact start and end time point for study of each the above mentioned issues across the blogs and media, two criteria were used to identify the

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starting point and end point for each issue. Primarily, a certain minimum amount of channels (blogs and mass media outlets) were required to be carrying messages about the issue. In this case, if over 50% of the blogs and both of the traditional media outlets were carrying messages about the said issue, the issue could be described as having gained traction in both the newsroom and the blogosphere. An additional criterion was a heightened amount of message activity. Selecting the burst in message activity on the issue was determined by summing the total amount of unique blog posts and articles discussing the said issue on each day through the July 20, 2007, to September 30, 2007, time period. The burst in message activity could then be determined by an overall increase in the total count of messages on the said issue based on the above two criteria.

After conducting this frequency count of blog posts and articles on the three aforementioned issues and applying the rubric of this dual criteria, the three start and end time periods for the Gonzales NSA wiretapping testimony, the Larry Craig scandal, and the Iraq issue were July 24 to August 2, August 27 to September 7, and August 15 to September 24 respectively. These three time periods accurately reflected the emergence of these three issues as a topic for discussion in traditional media articles and blog posts and political blog agendas. Through these three time periods, there were a total of 1422 unique blog posts, with 1262 culled from the 18 blogs in this sample and 160 culled from media blog posts from both the *New York Times* and the *Washington Post.* In sum total, there were 302 traditional media articles from both the *New York Times,* and the *Washington Post.*

Tables 3 through 5 (Appendix A) provide the dataset of stories and blog posts produced on the three issues during the aforementioned time frames. The following section provides a brief description of each issue and its developments within the time frames selected for the study of the said issue

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Alberto Gonzales NSA Wiretapping Hearings: This issue examines debate over US Attorney Alberto Gonzales' July 24, 2007 testimony before the Senate Judiciary Committee. Gonzales was questioned intensely, most notably by Senators Patrick Leahy (D-VT), Chuck Schumer (D-NY), Arlen Specter (R-PA), and Russ Feingold (D-WI), who suspected deception in his accounts of both the dismissal of U.S. Attorneys in 2006 and the continuation of the NSA Domestic eavesdropping program. That testimony and earlier accounts were contradicted separately by FBI Director Robert S. Mueller III, who spoke before the House Judiciary Committee on July 26. Gonzales, who had previously been White House Counsel, received strong support from President George W. Bush. During the Bush Administration, the White House cultivated an unprecedented influence over the Department of Justice, such that subpoenas for two Administration officials were denied, citing executive privilege.

Larry Craig Scandal: News broke on the magazine *Roll Call* on August 27, 2007, that Republican senator for Idaho, Larry Craig, was arrested in a airport bathroom in Minneapolis on June 11, 2007, by an undercover officer who said that Craig was sending signals that he wanted to have sex with him. Craig had plead guilty to disorderly conduct on August 8, 2007, and resigned from his position as US Senate cochairman for Mitt Romney's presidential campaign. The scandal was kept alive by Craig's decision to resign from the US senate after repeated calls for his resignation from high ranking Republican members on September 1, 2007, only to "un-resign," egged on by Republican senator Arlen Spector. As of the end of this study's time point, a judge had denied his request to withdraw his guilty plea.

Iraq: Petraeus Report and MoveOn 'Betray Us' Ad: General David Petraeus, general of the US Army and commander of Multi-National Force – Iraq- delivered his update on the state of the surge of US forces in Iraq on September 10, 2007, before Congress. The report was called the Iraq Study report. It was rumored in mid-August, 2007, that the White House was the real author of his report, a detail that led to it being dubbed the "White House report." Petraeus discounted such claims, but was greeted on the same day of his testimony with a full-page ad in the *New York Times* that likened him to a betrayer. This ad, which was bought at a lower rate from the *New York Times,* became the source of bickering in partisan circles, resulting in politicians using the ad to to gain political advantage in their bid for the 2008 US presidency. The Iraq Study report became a further catalyst for a discussion of the political upheaval in Iraq and for a revisiting of the events surrounding America's war on terrorism in Iraq.

ISSUE AND ATTRIBUTE AGENDA SETTING

For the examination of issue agenda setting through the blogs and mass media, the unit of analysis was the blog post for blogs and the article for traditional media. As opposed to using the frequency of mention of terms in the said issue, a scenario which could result in one post or article being counted as many times as the issue terms were present within one blog post or story, frequency counts of the issue as mentioned in unique blog posts and articles on a day-to-day basis through the selected time periods provided the count data for issue agenda setting. Using issue mentions through unique blog posts and media provided a less inflated estimate of the popularity of the issue.

Based on these day-by-day issue mentions, issue agendas of the media and the blogs across ideological spectrums were correlated as were the agendas of blogs within their partisan spectrums. To get at causation, the predictive ability of media's agenda on

the blogs and vice versa was tested using Ordinary Least Squares (OLS) regression to estimate Granger causality. Linear relationships were developed that predicted the agenda of either the blog or media based on both its past agenda and the agenda of another blog or media. Optimal time lags were developed through regressing either the blog or media's agenda against its own agenda, one day at a time, until the agenda of the blog's or media's past was no longer a positive predictor of its present agenda. Using these optimal time lags, regression equations were developed to test the various hypotheses, at the issue level.

For example, an equation to estimate a blog's agenda based on an optimal time lag of one day could look like the following:

Blog Agenda = constant + Blog Agenda (lag 1) + error term

Factoring in the influence of another variable, in this case media, on the blog agenda could produce the following equation

Blog Agenda = constant + Blog Agenda (lag 1) + Media Agenda (lag 1) + error

Time series analysis requires an excess of 50 time points to be accurate (Box and Jenkins, 1976). In an effort to reduce error (thus avoiding a failure to reject the null hypothesis, i.e., no agenda setting impact), all time points were pooled to create more of an opportunity to decipher media and blog influence on each other. This merging of time points was carefully lagged to prevent lagging one issue on another. Lags were created for the dependent (issue mentions) and independent variables (time) separately. The data was then stacked or merged, and OLS regression was run on the pooled data. At the

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individual issue level, the only issue that yielded a lengthy enough time point to avoid an overly inflated error term (and a failure to reject the null hypothesis) was the Iraq issue. Unlike the Craig issue and the Gonzales issue, which was 12 days and 10 days respectively, the Iraq issue persisted over a 40-day time period. Thus, data on Granger causality is presented both at the pooled issue level and at the individual level on the Iraq issue. Examining the data points, for the pooled issue, there were 56 usable lags while for the Iraq issue, there were 38 lags.

STATA was used to run the OLS regression analysis to estimate Granger causality. To run STATA, .do files were created for each of the five media agendas (media, media blog, left-leaning blogs, right-leaning blogs, and moderate blogs). In each STATA file, syntax was developed to regress the individual media's agenda on itself as well as its agenda on the other actors. For example, a sample .do file for the media's agenda setting influence on all blogs, with these blogs' past agenda as a predictor of itself, looked like the following:

```
/* test whether media Granger causes blue blog*/
reg blue blue1 media1
test media1
/* test whether media Granger causes red blog*/
reg red red1 media1
test media1
/* test whether media Granger causes moderate blog*/
reg moder moder1 media1
test media1
/* test whether media Granger causes media blog*/
```

```
reg mediab mediab1 media1

test media1
```

Each test provided t-values of significance based on the media's ability to set the agenda of itself and the agenda of other media in this study. These values were used to determine the direction of agenda-setting influence at the issue level.

The attribute agenda setting portion of this study required the creation of issue-specific frames. In an effort to create frames with broad generalizability across media and blogs, 10% of content was selected from each of the different agendas: the left-leaning blogs, the moderate blogs, the right-leaning blogs, traditional media blogs, and the online versions of the two traditional media outlets. SPSS was used to randomly generate this sample of content. Each issue resulted in the creation of issue-specific, substantive frames. There was no limit to the amount of frames that could be created per issue; however, each frame needed to be mutually exclusive from the other. Posts could be coded in more than one frame. Separate frames were created for the Craig issue, the Gonzales issue, and for the Petraeus Report and the MoveOn ad for the Iraq issue.

To test the second-level agenda setting hypotheses advanced in this study, counts were developed based on the frequency of mention of the frames. The analysis involved merging some frames; however, care was taking when merging frames to not double count one post that overlapped in the merged frames. The data, which was positively skewed in most cases, was normalized using logarithmic transformations to approximate more of a normal distribution. Pearson's correlations were then used to correlate agendas, both between media and blogs within their ideological spectrum and among blogs within their partisan divisions. These different forms of correlations enabled a comparison of media's agenda to the blog agenda within their partisan walls, while also permitting a

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further test of how well the blogs' second-level agendas correlated among each other based on their partisan affiliation.

SOCIAL NETWORK AND LINK ANALYSIS

To facilitate the study of the social connections between mass media and blogs and between and among the political blogs across the ideological spectrum, URLs or hyperlinks were coded in the blog posts of both the 18 political blogs and the traditional media blogs. Though it was the original intention to use Web versions of the newspapers in an effort to code its usage of hyperlinks, it was discovered that online articles within both elite newspapers were primarily linking to preexisting content from their own newsroom. This insufficient external hyperlinking within article content resulted in the confinement of, hyperlink analysis to strictly blog content from the eighteen independent blogs and the traditional media blogs.

In order to capture social relationships, each URL was coded based on the blog site it originated from and where it was pointing to. URLs were also content analyzed based on the issue it was related to, as well as content analyzed based on the type of site that the blogger was pointing to. A series of content categories was developed to code URLs based on the hypotheses and research questions advanced in this study. URLs could only be put in one content category and some of the categories that URLs could be put into included the following: liberal blog, conservative blog, moderate blog, democratic partisan organization, conservative partisan organization, non partisan organization, traditional media (newspapers, television, radio), periodicals, niche media, other citizen media (including grassroots political organizations), government site, education site, media conglomerate, portal news site, ap/syndicated content, news aggregators, web-only media, and media blog, to name a few.

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In sum total, 3721 URLs were analyzed for their social network connections, with 3172 culled from the 18 blogs and 549 culled from traditional media blog**s.**

To create blog-to-blog network data matrices of hyperlink connections, SQL queries were written against the database. For example, a simple sample query to capture how many times Glenn Reynolds aka *Instapundit* links to Moulitsas Zuniga aka *Daily Kos* could look like the following:

```
/* Query to retrieve link counts from the database */
SELECT COUNT(l.url) FROM table_link l
INNER JOIN table_post p on p.post_id = l.link_id
WHERE p.site = 'Instapundit' and l.site = 'DailyKos'
```

These counts provided valued connections, enabling data matrices to be built on the frequency of blog-to-blog connections across all three issues as well as on an issue-by-issue basis. Network visualizations were created using these data matrices in Netdraw and UCINET. These programs were also used to create summary statistics on the significance of each blog's centrality to information diffusion.

INTERCODER RELIABILITY AND CODER TRAINING

At the issue level, computer keyword searches on the blog's search mechanism provided the frequency counts needed to correlate mass media agendas and blog agendas; hence, there was no need for intercoder reliability. However, intercoder reliability tests were conducted for both the second-level agenda setting part of the study and for the URL analysis. For both tests, 10% of content was randomly sampled using SPSS, resulting in a sub-sample of 372 URLs, 126 blog posts from the 18 blogs, 16 blog posts

from traditional media blogs and 30 articles from the traditional media newsroom. Examples of content for each frame were developed as part of coder training, and the URLs and blog posts/articles were then coded using the codebook and sample content guidelines.

In order to correct for chance agreement, Krippendorf's alpha was used to calculate intercoder reliability across the variables in this study. According to Krippendorf (2004), an alpha in excess of .80 is most customary; however, where tentative conclusions are deemed acceptable, an alpha of .667 will suffice. In the latter scenario, Krippendorf (2004) noted that the cutoff point should be justified based on the nature of the reseach under consideration. Using Krippendorf's alpha, reliability findings ranged from .73 to .99 across the three different issue periods for URL coding and blog post/article coding. Estimates for the URL coding ranged from .90 to .98. Coding at the attribute level provide more difficult to obtain good reliability estimates; however, upon combining frames, reliability estimates improved to acceptable levels, ranging from .73 to .85 across the three different issues. It was felt that these attribute-level alpha scores were appropriate based on the intricate nature of coding content for frames. Upon coding this 10% of content, one coder, the author of this study, coded the remaining 90% content (URL and text).

To facilitate ease of coding, a Web-based form was built (see figure 5, appendix A), and all blog posts and article content were coded through this interface, permitting the data to be stored in a database for further manipulation. Using this system also prevented later manual data entry, a process that can introduce error. Blog posts and articles on said issues were coded for the presence/absence of frames, and the URLs contained in each blog post were entered into the database and coded based on their content categories. The

data was also exported as a text file from the database to permit further statistical analysis in SPSS.

The next chapter turns attention to the results, beginning with general, descriptive statistics of the content findings in the 18 blogs across the ideological spectrum, the traditional media blogs and the traditional media sample.

Chapter 7: A General Overview

Tables 3 through 5 (see Appendix A) provide data on the frequency of issue mentions in blog posts and articles for the three issues through the 18 blogs, traditional media blogs and traditional media articles, while Tables 6 through 8 (see Appendix A) present data on the frequency of link usage in blog posts for the three issues through the 18 blogs and traditional media blogs. There were 368 blog posts (207 from the left-leaning blogosphere, 49 from the right-leaning, 73 from the moderate blogosphere, and 39 from traditional media) and 46 articles from *The New York Times* and the *Washington Post.* There were 186 blog posts on Gonzales (123 from the left-leaning blogosphere, 20 from the right-leaning, 24 from the moderate, and 19 from traditional media) and 30 news articles from the *New York Times* and the *Washington Post.* By far, the most prolific issue was Iraq, which could have been due to the longer time period in which the issue was studied. There were 868 blog posts (463 from the left-leaning blogosphere, 167 from the right-leaning, 136 from the moderate, and 102 from traditional media) and 226 news articles from the *New York Times* and the *Washington Post.*

Tables 6 through 8 provide link information through the three time periods, and like the posting volume, the link volume was also more prolific on the Iraq issue. Again, this was primarily based on the longevity of the issue on the blogs. As it relates to links, there were 2533 links on the Iraq issue, with 1403 from the left-leaning blogosphere, 469 from the right-leaning, 217 from the moderate, 105 from the *New York Times* blog and 285 from the *Washington Post.* The next highest link total was for the Craig issue. In sum total, there were 771 links, with 375 coming from the left-leaning blogosphere, 132 from the right-leaning, 158 from the moderate, 51 from the *New York Times,* and 55 from the *Washington Post.* The Gonzales issue yielded the lowest link total, primarily due to the

low posting volume of the right-leaning blogosphere on the issue. Of the 417 links on Gonzales, 267 came from the left-leaning blogosphere, 38 from the right, 59 from the moderate, while 7 came from the *New York Times,* and 46 from the *Washington Post* blogs.

DESCRIPTIVE STATISTICS: THE BLOGOSPHERE

Many of this study's hypotheses and research questions were dependent on the blog posts and links culled from these 18, elite blogs, representing the left-leaning, the right-leaning, and the moderate blogosphere. Elite bloggers are expected to be more prolific since they command higher readerships than less-elite bloggers. Since posting volume and link volume formed the basis for many of the findings in this study, it is important to explore how these two metrics differed among the different blog ideological networks. This section compares the posting and linking volume of the three ideological spheres represented in this study's sample.

As Table 10 (Appendix A) highlights, a one-way ANOVA revealed that post frequency varied significantly as a function of partisan orientation for the blogs in this study ($f(2, 15) = 25.58$, $p < .05$) when equal variances are assumed. Tukey post-hoc tests revealed that left-leaning blogs chosen for this study were significantly more likely to post across all issues (M=133, SD=28.86) when compared to the right-leaning blogs (M=39.3, SD=19.46) and moderate-leaning blogs (M=38.83, SD=12.06) selected for this study.

This aggregate finding was consistent through the different issues. A one-way ANOVA revealed that post frequency varied significantly as a function of partisan orientation across the Craig issue ($f(2, 15)=6.954$, $p<.05$), the Gonzales issue

(f(2,15)=26.201, p<.05), and the Iraq issue (f(2, 15)=18.526, p<.05), with equal variances assumed in all scenarios Left-leaning blogs in this study were significantly more likely to post about Craig (M=35.5, SD=20.34), Gonzales (M=20.5, SD=6.80), and Iraq (M=77.27, SD=7.05) when compared to right-leaning blogs on Craig (M=8.12, SD=5.38), Gonzales (M=3.3, SD=3.98) and Iraq (M=27.83, SD=13.93) and moderate-leaning blogs on Craig (M=12.17, SD=11.48), Gonzales (M=4.0, SD=1.67) and Iraq (M=22.67, SD=19.66).

As Table 11 (Appendix A) highlights, a one-way ANOVA revealed that link frequency varied significantly as a function of partisan orientation for the blogs in this study (f(2, 15)=15.47, p<.05) when equal variances are assumed. Tukey post-hoc tests revealed that left-leaning blogs in this study were significantly more likely to link across all issues (M=341, SD=113.96) when compared to right-leaning blogs (M=106.5, SD=81.39) and moderate-leaning blogs (M=81.33, SD=64.97) in this study.

This aggregate finding was borne through the different issues. A one-way ANOVA revealed that link frequency varied significantly as a function of partisan orientation across the Craig issue (f(2, 15)=6.10, p<.05), the Gonzales issue (f(2, 15)=9.617, p<.05), and the Iraq issue among blogs in this study (f(2, 15)=10.919, p<.05), with equal variances assumed in all scenarios. Left-leaning blogs in this study were significantly more likely to link about Craig (M=62.5, SD=21.44), Gonzales (M=44.5, SD=25.02), and the Iraq issue (M=233.83, SD=100.23) when compared to right-leaning blogs on Craig (M=22, SD=17.24), Gonzales (M=6.33, SD=8.41), and Iraq (M=78.17, SD=67.70), and moderate-leaning blogs on Craig (M=26.33. SD=26.89), Gonzales (M=9.83, SD=11.67), and Iraq (M=45.17, SD=45.91).

DESCRIPTIVE STATISTICS: TRADITIONAL MEDIA ARTICLES AND BLOG POSTS

In reference to the three issues, there were 273 unique articles and 170 blog posts culled from the *New York Times* and the *Washington Post* blogs. Aggregating all three issues, no significant difference (t(2)=2.184, p>.05) was found between the volume of articles (M=136.5, SD=12.03) and volume of blog postings (M=85, SD=31.11) for these two elite media entities. Analyzing issue by issue, no significant differences were found between article volume and blog post volume for these two traditional media entities for the Craig issue (t(2)=-1.236, p>.05), the Gonzales issue (t(2)=-.901, p>.05), or the Iraq issue (t(2)=-2.523, p>.05), suggesting that traditional media is making use of its blog to deliver news. This finding highlights the significance of studying traditional media blogs as a vehicle for the delivery of news.

Similar to posts, there were no significant differences (t(4)= -.715, p>.05) between the *Washington Post* (M=93.67, SD=81.70) and the *New York Times* (M=54.33, SD=49.08) in the usage of external links on their media blogs through the three issue periods.

UNDERSTANDING CONNECTIVITY IN THE BLOG NETWORKS

Figure 12 (Appendix B) presents the power law fit for the sum total of 3721 links present in this study. The figure shows, the entire network of links culled from the three ideological spectrums of the blogosphere as well as the traditional media blogs

Though there were 3721 unique links within this study, there were only 646 unique domains (for example, cnn.com is a domain in contrast to http://www.cnn.com/page1.html, which counts as a link). Conducting analysis at the level of the domain, the top 20% of the unique 646 URL domains in this study command 2890 of the 3721 links, or 78% of total links. Table 12 (Appendix A) presents the top 30 most

linked to domains in the blogosphere and traditional media. As can be seen from the table, over 50% of the top domains point to traditional media publications, such as newspapers, television, and periodicals. Nine of these top 30 domains point to blogs, a noteworthy finding that justifies the significance of examining the social influence of blogs across ideological spectrums. The popularity of the *Washington Post* and the *New York Times* as the number one and number two linked sites respectively also justifies the attention to these two elite media outlets in examining their agenda-setting impact on the blogosphere.

Chapter 8 turns attention to the hypotheses and research question on hyperlinking practices within and between the blogosphere networks and between the blogosphere networks and traditional media.

Chapter 8: Hyperlink Analysis

THE NETWORK OF BLOG LINKS

The state of URL connectivity in a network provides a good measure of the agenda setting dynamics between actors in the said network. As previously mentioned, URLs function to signal which authorities and sources are trusted. Through analysis of a Web site's URLs, information can be gleaned about a site's agenda setting impact. URLs, the currency of the World Wide Web, also help to create more esteem and prestige around those sites that are able to gain the most attention. URLs provide a powerful signal of a site's gatekeeping activities, and it is to the URLs in the study that we now turn our attention towards in an effort to understand what they tell us about the role of the press and social networks.

H1 predicts that blogs that share partisan ideologies will be more likely to link to each other as opposed to linking to blogs that are outside partisan ideologies. Such a finding has significant negative repercussions for the ability of online conversation to support healthy, democratic debate. Table 13 lists the means and standard deviations for the left-leaning and right-leaning blogosphere in their links to the left-leaning, the right-leaning and the moderate blogosphere.

Support was provided for this hypothesis, both across all issues (see Table 14 and Table 15, Appendix A) and on an individual issue-by-issue basis, in the left-leaning and right-leaning blogosphere. Across all issues, a one-way ANOVA found significant differences ($f(3, 20)=22.485$, $p<.05$) in the partisan linking practices of left-leaning blogs across all issues (see Table 14). Left-leaning blogs were significantly more likely to link to other left-leaning blogs (M=90.83, SD=44.25) when compared to their links to right-

leaning blogs (M=4.17, SD=2.79), the moderate blogosphere (M=.333, SD=.52), or media blogs (M=8.33, SD=6.18)).

H1 was also supported on an issue-by-issue basis in the left-leaning blog network. One-way ANOVAs also revealed significant differences in the partisan linking practices of left-leaning blogs. Left-leaning blogs were significantly more likely to link to other left-leaning blogs (M=14.5, SD=9.91) when compared to their links to right-leaning blogs (M=1.67, SD=1.63), the moderate blogosphere (M=.00, SD=.00), or media blogs (M=2.0, SD=1.26)) on the Craig issue ($f(3, 20)=10.492$, $p<.05$). Similarly, on the Gonzales issue, left-leaning blogs maintained partisan divisions, and were significantly more likely ($f(3, 20)=10.148$, $p<.05$) to link to other left-leaning blogs (M=15, SD=10.64) when compared to their links to right-leaning (M=1.0, SD=2.45), moderate blogs (M=.00, SD=.00), or media blogs (M=1.0, SD=1.67)). Finally, significant differences were found in left-leaning blogs' links to other blogs on the Iraq issue. Left-leaning blogs were significantly more likely ($f(3, 20)=25.764$, $p<.05$) to link to other left-leaning blogs (M=61.33, SD=28.03) as compared to their links to right-leaning blogs (M=1.5, SD=1.52), moderate blogs (M=.33, SD=.52), or media blogs (M=5.83, SD=4.67).

Like the left-leaning blogosphere, right-leaning blogs also showed a significantly greater likelihood to link to blogs that share their partisan affiliation, a finding that provides strong support for H1. As Table 15 (Appendix A) shows, across all issues, a one-way ANOVA revealed significant differences in the linking practices of right-leaning blogs to blogs of varied partisan affiliations. Right-leaning blogs were significantly more likely to link to other right-leaning blogs (M=24.33, SD=19.2) when compared to their links to left-leaning blogs (M=2.5, SD=1.87), moderate blogs (M=.67, SD=.82), or media blogs (M=8.17, SD=12.93) across all issues ($f(3, 20)=5.150$, $p<.05$).

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Varied levels of support were found for H1 at the individual issue level, with lower support primarily due to the fact that right-leaning blogs did not post with great frequency on the Gonzales issue, a subject taken up in chapters 10 and 11. On the Craig issue, right-leaning blogs were significantly more likely ($f(3, 20)=4.87$, $p<.05$) to link to other right-leaning blogs (M=6.17, $p<.05$) as opposed to linking to left-leaning blog (M=.5, SD=.55), moderate blogs (M=.00, SD=.00), or media blogs (M=1.33m SD=2.42). Similarly, on the Iraq issue, right-leaning blogs were significantly more likely ($f(3, 20)=3.54$, $p<.05$) to link to other right-leaning blogs (M=17.33, SD=15.32) as opposed to linking to left-leaning blogs (M=1.67, SD=1.37), moderate blogs (M=.6, SD=.55), or media blogs (M=7.6, SD=11.61). However, on the Gonzales issue, no support was found for significant differences ($f(3, 20)=.915$, $p>.05$) in the right leaning blogosphere to left-leaning blogs (M=.33, SD=.82), moderate blogs (M=.17, SD=.41), or media blogs (M=.00, SD=.00).

Unlike the predicted trend of linking to partisan networks by the partisan blogosphere, H2 predicted that moderate blogs will be less likely to link in a partisan manner, thus acting as bridges to more diverse sources of information when compared to the left-leaning or the right-leaning blogosphere. Table 13 provides the means and standard deviations for the moderate blog network through all issue periods. Interestingly, unqualified support was also found for this hypothesis across all issues (see Table 16, Appendix A) as well as on an issue-by issue basis. Across all issues in the moderate blogosphere, a one-way ANOVA revealed no differences in linking practices ($f(3, 20)=.965$, $p>.05$) to the left-leaning blogosphere (M=12.17, SD=10.21), to the right-leaning blogosphere (M=8.3, SD=8.12), or to the moderate blogosphere (M=6.0, SD=5.51). This finding was borne out through all of the three issues. On the Craig issue, no significant differences were found in the moderate blogosphere's linking practices

(f(3, 20)=1.41, p>.05) to the left-leaning blogosphere (M=3.5, SD=3.71), the right-leaning blogosphere (M=2.67, SD=3.14), or the moderate blogosphere (M=.67, SD=.82). Similar findings were revealed for the Gonzales issue and the Iraq issue. No significant differences were found in the moderate blogosphere's linking practices for the Gonzales issue (f(3, 20)=1.41, p<.05) to the left-leaning blogosphere (M=3.5, SD=3.72), the right-leaning blogosphere (M=2.67, SD=3.14), or the moderate blogosphere (M=.67, SD=.82). Similarly, no significant differences were found in the moderate blogosphere's linking practices for the Iraq issue (f(3, 20)=.168, p>.05) to the left-leaning blogosphere (M=6.17, SD=7.44), the right-leaning blogosphere (M=4.17, SD=7.23), or to the moderate blogosphere (M=4.17, SD=6.49).

POWER LAW TRENDS: THE BIAS OF ELITENESS

Prior studies have found that power law trends are ubiquitous in World Wide Web networks. However, this study hypothesized that moderate networks would have less of a power hierarchy when compared to the left-leaning or the right-leaning blogosphere because of their lack of identification with any one partisan orientation (H3). The moderate blogosphere's more egalitarian linking practices, a finding that supports H2 (see previous section), would translate into a hierarchy of links that is less top-heavy than that of the left-leaning or the right-leaning blogosphere.

Evidence exists to provide measured support for H3. Figures 14 through 16 (Appendix B) present the power law trends as estimated through regression analysis for the left-leaning, the right-leaning, and the moderate network respectively. As these power curves show, all three networks fit the classic power law trend of World Wide Web networks. H3 predicts that all networks would adhere to this power law trend. But, to what extent do the different networks illustrate more of a power law trend? This power

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law trend, if too extreme, can bias the network to the influence of only a few sites, leaving the majority of the Web sites incidental to influence and authority.

Further examination of link data frequency counts for the left-leaning blogosphere's network connections show that this partisan spectrum links to a total of 406 unique Web sites, as compared to 213 links from the right-leaning blogosphere and 196 from the moderate blogosphere. This data suggests that the left-leaning blogosphere is more open to different influences, and as the power law figures show (figures 14 to 16, Appendix B), the left-leaning blogosphere's long tail (representative of the decreasing connectivity of the linked-to sites) tapers off for a longer stretch. However, a cursory look at these curves highlights that the left-leaning blogosphere is more top-heavy than the other two networks, a sign that there is more elitism in this network.

Deeper analysis finds a more elite bias on the part of the left-leaning blogosphere. Of the 406 unique Web sites linked to by these bloggers, twenty percent of these sites, or 81 Web sites are responsible for 1542 of the left leaning's network 2045 links, or 75%. Of the 213 unique Web sites linked to by the right-leaning blogosphere, 20% of these sites or the first 43 sites are responsible for 407 of the 636 links in the network, or 64%. Of the 196 unique domains linked to by the moderate blogosphere, the top 20% of the network or 39 sites are responsible for 274 of the networks 488 links, which is approximately 56% of all links in the moderate network. These findings, in conjunction with the power law curves, provide evidence in support of H3 such that the moderate network is more egalitarian in its linking practices. The top 20 % of the moderate network are responsible for fewer links than in the right-leaning and the left-leaning blogosphere.

VISUALIZING THE BLOG NETWORK: UNDERSTANDING CENTRALITY

The above findings are well illustrated through reference to Figure 13 (Appendix B). This figure presents a network visualization of the left-leaning, right-leaning, and moderate network, with their in-degree (amount of links that are pointing to them) denoted by size of the node and their reciprocal links (amount of shared connections, i.e., A points to B and B points to A) illustrated by thick red lines. This network visualization provides a picture of the connectivity of the entire network through all three issue periods.

This network diagram gives visual representation to some of these previously stated results. As the network diagram illustrates, there is very little reciprocal connections outside partisan spheres, namely in reference to the left-leaning (colored blue) and right-leaning (colored red) blogosphere. Interestingly, the high levels of connectivity among left-leaning blogs is marked, and contrasts sharply with lower levels of connectivity among right-leaning blogs, and little to no in-group connectivity among moderate blogs. As previously discussed, the left-leaning blogs were significantly more likely to link and to post, characteristics that are well illustrated by the dense reciprocal connections among blue blogs. With respect to the moderate blog network, the little in-group connectivity is illustrated by the few reciprocal lines between moderate blogs, a finding which supports the lack of significant differences in the moderate blog's links to the different partisan spheres. The size of the node, a measure of the quantity of links it received, or its in-degree, provides data on the blogs that received the most links. The figure illustrates that blue blogs were also more likely to receive links, particularly among its network members. On the right-leaning side, the blog *Captain's Quarters* was the most popular blog. Among the moderates, *Daily Dish,* a blog authored by Andrew Sullivan, was the most popular blog.

Table 17 provides an alternative perspective to viewing the blogosphere through the realm of its centrality. Centrality, a concept that comprises three sub-concepts (degree, betweeness, and closeness) provides a good lens through which to view the authority of specific blogs. In this table, degree represents both the indegree (amount of links a blog receives) plus its outdegree (amount of links it sends out) while the betweenness is a measure of how many connections pass through a node.

H4 predicts that moderate blogs would be more likely to serve as bridges between the different partisan networks as opposed to partisan blogs. In the language of centrality, moderate blogs should show higher betweeness scores, suggesting they serve as connectors to different networks. As Table 17 (Appendix A) reveals, *The Moderate Voice,* a moderate-leaning blog, has the highest betweeness score of all blogs; however, this moderate blog is the only moderate site that has a high betweeness score. This limited support for H4 is shown by the fact that partisan blogs such as the right-leaning *Captain's Quarters* and the left-leaning *Think Progress* have the second and third highest betweeness score.

Degree, another lens of centrality, is measured in Table 17 as a site's outdegree (number of links it sends out) and its in-degree (number of links it receives). Like the prior finding, *The Moderate Voice* has the highest degree score; however, this finding is due to the blog's high out-degree as opposed to its in-degree (see Figure 13, Appendix B). Other sites with high overall degree include *Captain's Quarters,* a right-leaning blog, *Think Progress* and *Talking Points Memo,* both left-leaning, and the mass media blogs of the *New York Times* and the *Washington Post.*

The difference in centrality indicators for the different blogs and partisan spheres will also be explored in more detail on an issue-by-issue basis in Chapter 9.

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To what extent do the blogosphere's three ideological spectrums share media preferences? H5 postulated that partisan blogs would be significantly more likely to link to different as opposed to similar media entities. In order to test this hypothesis, the most highly linked traditional media outlets across the three ideological spectrums were culled, and their frequency of occurrence across the different partisan spheres were noted. Because of its marked positive skewness, the data was transformed to more of a normal distribution using a logarithmic transformation. Pearson's correlations were then run to decipher whether mass media preferences correlated across the left-leaning, right-leaning, moderate, and media blogs.

Table 18 (Appendix A) presents the raw data on the most popular media across the different blog ideological spheres while Table 19 (Appendix) A presents the findings in support of H5 across all issues. As Table 19 highlights, left-leaning blogs and right-leaning blogs do not share media preferences, as evidenced by an insignificant correlation between left-leaning blogs' media choices and those of right-leaning blogs across all of the issues in this study (r=.485, p>.05). A closer inspection of the raw data in Table 18 reveals a greater propensity of right-leaning blogs to link to such conservative publications as *The Hill* and the *National Review*.

Testing H5 across the different issues provides support for two of the three issues under examination in this study. On the Craig issue, there was an insignificant correlation in media preferences for left-leaning blogs and right-leaning blogs (r=.215, p>.05). On the Iraq issue, an insignificant correlation was also derived for shared media preferences between left-leaning blogs and right leaning blogs (r=.530, p>.05). However, on the Gonzales issue, a significant correlation in media preferences was found between left-

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leaning blogs and right-leaning blogs (r=.767, p<.05); however, the lack of data for Gonzales in the right-leaning blogosphere makes it difficult to interpret the latter finding.

Tables 18 and 19 (Appendix A) presents data to explain the media preferences of moderate blogs. As can be seen from Table 19, moderate blogs have a close relationship to the media preferences of media blogs (r=.883, p<.05). This finding was further corroborated across all issues. Moderate to high significant correlations were found between the media agendas of the moderate blogs and the media blogs for the Craig issue (r=.9, p<.05), the Gonzales issue (r=.641, p<.05), and the Iraq issue (r=.882, p<.05).

Interestingly, in two of the three issues, the moderate blogosphere's media preferences also showed a strong correlation with the left-leaning blog's media agendas. Significant correlations were found for the moderate blogosphere's media preferences and the left-leaning blogosphere's media preferences across all issues (r=.766, p<.05), the Craig issue (r=.580, p<.05), and the Iraq issue (r=.752, p<.05). Only in the Gonzales case was the moderate blogosphere's media agenda correlated significantly with the right-leaning blogosphere (r=.,642, p<.05) as opposed to the left-leaning blogosphere. However, data scarcity on the Gonzales issue in the right-leaning blogosphere makes it difficult to interpret this latter finding.

MEDIA LINKS IN THE BLOGOSPHERE

To what extent do the *New York Times* and the *Washington Post* maintain their elite status in this new media environment? With the blogosphere's ability to link to any and all forms of media, it is instructive to measure their ability to maintain relevancy and currency as agenda setters to the blogosphere across all ideological spectrums.

RQ 1 is answered through the data presented in Tables 20 through 22 (Appendix A), which present the top 20 links across the different ideological spectrums through the

different issues under consideration in this study. Notable about these lists is the continued strength of traditional media, a finding that is well supported through the three different issue periods for all three networks. Within the right-leaning blogosphere network, the *Washington Post* and the *New York Times* are present in the top three media choices. Notable about the right-leaning blogosphere is the presence of the *National Review,* a media selection which was their top media choice for the Iraq issue in this study. In the left-leaning blogosphere, the *Washington Post* and the *New York Times* were present as the top two media in two of the three issues. Similarly, for the moderate blog network, both media were in the top two for two of the three issues.

How does the *Washington Post* compare with the *New York Times* through all three networks? Table 23 provides the descriptive statistics for means and standard deviations of all three networks to the *New York Times* and the *Washington Post* across all three issues, while Table 24 reveals the results of an independent samples t-test, which shows no significant difference in links to the *New York Times* (M=14.56, SD=15.73) and the *Washington Post* (M=10.5, SD=10.82) across all issues (t(34)=.901, p>.05) in the three blog networks.

On an issue by issue basis, this finding was also strongly supported. There was no significant difference in links to the *Washington Post* (M=1.5, SD=2.09) or the *New York Times* (M=1.39, SD=1.5) on the Craig issue (t(34)=.183, p>.05) in the three blog networks. Bloggers were equally as likely to link to the *Washington Post* (M=1.5, SD=2.09) or the *New York Times* (M=1.05, SD=1) on the Gonzales issue (t(34)=.813, p>.05) in the three blog networks. Similarly, links were equally as likely to be given to the *Washington Post* (M=2.89, SD=3.66) or the *New York Times* (M=1.61, SD=2.40) for the Iraq issue (t(34)=1.238, p>.05) amongst the three blog networks.

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How does this finding hold up through each blog network? Across all issues, there was no significant difference (t(10)=1.255, p>.05) in the left-leaning's blogosphere's links to the *New York Times* (M=31.5, SD=16.56) and the *Washington Post* (M=21, SD=12.1). No significant differences were found in these left-leaning bloggers' links to the *Washington Post* (M=2.17, SD=1.72) or the *New York Times* (M=1.167, SD=.75) on the Craig issue (t(10)=1.303, p>.05). Both the *Washington Post* (M=5.83, SD=4.96) and the *New York Times* (M=4.17, SD=2.63) were equally as likely to get links from left-leaning bloggers on the Gonzales issue (t(10)=.727, p>.05); similarly the *Washington Post* (M=23.5, SD=11.13) and the *New York Times* (M=15.67, SD=10.76) were similarly linked to on the Iraq issue (t(10)=1.249, p>.05).

The conservative blogosphere produced similar results: there were no significant differences between the *Washington Post* (M=5.83, SD=4.75) or the *New York Times* (M=5.17, SD=5.63) in link totals across all issues (t(10)=.222, p>.05). No significant differences were found in right leaning bloggers' links to the *Washington Post* (M=.33, SD=.52) or the *New York Times* (M=.66, SD=.82) on the Craig issue (t(10)=-.845, p>.05). Both the *Washington Post* (M=1.33, SD=1.75) and the *New York Times* (M=.5, SD=.84) were equally as likely to be linked to on the Gonzales issue (t(10)=1.052, p>.05), and no significant differences were found between link totals for the *Washington Post* (M=4.12, SD=4.87) and the *New York Times* (M=4.0, SD=5.59) on the Iraq issue (t(10)=.055, p>.05).

Like the other two networks, the moderate blogosphere bore similar findings . The moderate blogosphere had no significant differences (t(10)=.349, p>.05) in its media links to the *Washington Post* (M=6.3, SD=5.3) or the *New York Times* (M=5.3, SD=4.68) across all issues. Both the *Washington Post* (M=2, SD=3.03) and the *New York Times* (M=1.3, SD=1.37) were equally as likely to be linked to on the Craig issue (t(10)=.491,

p>05). On the Gonzales issue, both the *Washington Post* (M=1.5, SD=1.5) and the *New York Times* (M=.17, SD=.41) held similar prestige, with no significant differences in the links they garnered (t(10)=2.08, p>.05). Similarly, on the Iraq issue, both the *Washington Post* and the *New York Times* were equally as likely to be linked to from the moderate blogosphere.

RQ2 questions the extent to which these blog networks depend on citizen versus traditional media. Table 25 provides the descriptive statistics for means and standard deviations of all three networks to citizen media and traditional media across all three issues, while Table 26 reveals the results of an independent samples t-test, which revealed no significant differences (t(34)=-1.49, p>.05) in bloggers' links to citizen media (M=58.61, SD=52.72) or traditional media (M=92.5, SD=80.8) across all three issues.

However, this finding was not a robust one through the different issues amongst all three networks. Through all three networks, bloggers were significantly more likely to link to traditional media (M=20.17, SD=14.7) as compared to citizen media (M=11.5, SD=9.5) for the Craig issue (t(34)=-2.044, p<.05). On the Gonzales issue, citizen media (M=9, SD=12.4) was equally as likely to be linked to (t(34)=-.177, p>.05) as traditional media (M=9.44, SD=10.27) from all blog networks. On the Iraq issue, blog networks were equally as likely to link (t(34)=-1.442, p>.05) to citizen media (M=38.11, SD=35.26) as to traditional media (M=62.9, SD=63.74).

How was this finding supported through the individual blog networks? Left-leaning bloggers showed no significant differences in their links to citizen media and traditional media through two of the three issues. On the Craig issue, left-leaning blogs were significantly more likely (t(10)=-2.27, p<.05) to link to traditional media (M=31.5, SD=9.64) as compared to citizen media (t(10)=18.33, SD=9.68). On the Gonzales issue,

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left-leaning bloggers were equally as likely (t(10)=.110, p>.05) to link to citizen media (M=19.5, SD=11.2) as traditional media (M=20.3, SD=14.8). For the Iraq issue, both citizen media (M=73.6, SD=35.4) and traditional media (M=118.5, SD=68.3) were equally as likely (t(10)=-1.44, p>.05) to be linked to from the left-leaning blogosphere.

No significant differences were found in links to citizen media and traditional media across the conservative blogosphere through all three issues. The conservative blogosphere was equally as likely (t(10)=-1.12, p>.05) to link to citizen media (M=31.83, SD=21.6) as traditional media (M=61.2, SD=62.5) on the Craig issue. There were no significant differences (t(10)=-1.1, p>.05) in links to citizen media (M=7.2, SD=6.49) and traditional media (M=13.3, SD=12.4) on the Gonzales issue. On the Iraq issue, both citizen media (M=23, SD=17.4) and traditional media (M=45.67, SD=52.5) stood an equal chance (t(10)=-1.04, p>.05) of being linked to from the conservative blogosphere.

Like the conservative blogosphere, no significant differences were found in links to citizen media and traditional media across the moderate blogosphere through all three issues. In relation to the Craig issue, the moderate blogosphere was equally as likely (t(10)=-.963, p>.05) to link to citizen media (M=8.5, SD=8.9) as they were to traditional media (M=15.67, SD=15.89). On the Gonzales issue, there were no significant differences (t(10)=.093, p>.05) between the moderate blogosphere's links to citizen media (M=5, SD=7.4) or traditional media (M=4.67, SD=4.67). No significant differences (t(10)=-.483, p>.05) were also found for links between citizen media (M=18.2, SD=21.7) and traditional media (M=24.5, SD=23.7) on the Iraq issue for the moderate blog network.

Chapter 9 turns attention to the issue agenda setting dynamics between traditional mass media and the political blogosphere.

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Chapter 9: Issue Agenda Setting

Hypotheses six through nine and research questions three through seven examine the agenda setting function of the press and the alternative power of social networks in the political blogosphere. The media, in a position to be closer to bureaucratic sources due to their professional ties, are better equipped to report on the news. Yet, many of the elite bloggers sampled for study in this dissertation now blog on a full-time basis and the movement to group blogging with the hiring of prior professional journalists is a sure signal of the political blogger's movement towards more direct reporting. Yet, this dissertation predicts that traditional media would still be able to set the political blog's issue agenda. However, it is also predicted that social networks will influence bloggers such that partisan blog agendas, on the issues, should be more highly correlated with those that share the same partisan ideologies.

Tables 3 through 5 provide information on the frequency of mention of traditional media articles and blog postings on the three different issues examined in this study. The question can be posed, to what extent is there broad agreement on the importance of these issues across the set time frame of each issue? Such evidence of a broad correlation among these different media entities, issue-by-issue, would provide a measure of the agreement on the news agenda through these specified time periods. If there is broad agreement across networks, the question then becomes, who sets the other's agenda?

Intraclass correlation coefficients (ICCs) were calculated, issue-by-issue, to provide a measure of broad agreement among the different actor agendas. This statistic, which accounts for the non-independence of datasets, provides a substitute correlation measure, similar to a Pearson's correlation, for datasets that are non-independent. Of the three issues, Iraq was the only issue that yielded a significant correlation ($r=.415$, $p<.05$)

across the five different actor agendas (left-leaning blogosphere, right-leaning blogosphere, the moderate blogosphere, traditional media, and traditional media blogs). For the Craig issue, the ICC was insignificant (r=.022, p>.05) for broad agreement across the five networks. Similarly, the ICC was insignificant for the Gonzales issue (r=-.058, p>.05) across all five network agendas.

Pairwise correlations were then run between the networks to decipher whether any two networks yielded significant correlation coefficients. The results of the analysis for the Iraq issue are presented in Table 27 (Appendix A) the only issue with any consistent correlations across agendas. Significant correlations on this Iraq issue ranged from .272 to .638, and all networks, left-leaning, right-leaning, and moderate, showed correlations with the media agenda. Both the right-leaning and the moderate network also had strong correlations with the media blog agenda; on the Iraq issue, only the left-leaning blogosphere did not have an agenda that correlated with the media blog agenda.

For the remaining two issues in this study, very few significant correlations were derived. For the Craig issue, significant correlations were found between the moderate network and the left-leaning blogosphere (r=.456, p<.05) as well as between the moderate blogosphere and the media blogs (r=.490, p<.05). For the Gonzales issue, the only significant correlation was a correlation between the moderate blogosphere and the media blog agenda (r=.572, p<.05).

These findings provide partial support for H6, which predicts that blogs that share partisan ideologies will have a more correlated issue agenda. These findings reveal a lack of significant correlations between the issue agendas of the left-leaning blogosphere and the right-leaning blogosphere across all issues and on an issue by issue basis. On the Iraq issue, which saw the highest correlations between blog networks, there was no correlation between left-leaning blogs and right-leaning blogs. However, to fully test H6, it is

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important to correlate the issue agendas of blogs within their social networks. These tests are provided in the following section.

The intra-class correlations reported in this section also provide support for H7, which predicts that moderate blogs will have an issue agenda that correlates most closely with the media agenda. Consistent among these findings were significant correlations between the moderate blog network and the media agenda through all issues. Correlation does not equal causation; yet, this finding provides support for H7 which predicts that moderate blogs will have an agenda more like the media agenda and less like that of their partisan counterparts.

TESTING SOCIAL INFLUENCE: CORRELATIONS WTIHIN PARTISAN NETWORKS

Greater support can be provided for H6 through answering the question: do left-leaning and right leaning blogs share a similar agenda to other blogs that share their partisan perspectives? In other words, do left-leaning blogs have an agenda correlated with other left-leaning blogs? Similarly, do right-leaning blogs tend to have a correlated agenda with other right-leaning blogs on the issues of the day? H6, which predicts that blogs that share partisan ideologies will have a more correlated issue agenda, necessitates that one decipher the relationship among blogs within their social networks. To decipher this influence, intra-class correlations (ICC) were run comparing blog agendas to the agendas of other blogs within their partisan spheres.

Within the left-leaning blogosphere, strong evidence existed for the significance of social influence across all the different issues, though the correlation coefficients could be described as weak. The ICC for the agenda of the six left-leaning blogs on the Craig issue was significant (r=.292, p<.05). Regarding the Gonzales issue, the ICC was also significant (r=.225, p<.05) among all six left-leaning blog agendas. Finally, on the Iraq

issue, the ICC among the six left-leaning blog agendas proved significant (r=.521, p<..05).

The right-leaning blog network also showed some signs of a shared issue agenda across the six blogs in the dataset, with the strongest support for the Iraq issue. The ICC was highest for the Iraq issue (r=.403, p<.05), but barely significant for the Craig issue (r=.131, p=.05); however, the ICC was not significant for the Gonzales issue (.r=-.064, p>.05). The right-leaning blogosphere's lack of blog posts on the Gonzales issue complicates the interpretation of this finding.

In the moderate blogosphere, the only significant correlation among moderate blog agendas was on the Iraq issue (r=.259, p <.05). For both the Craig issue (r=-.067, p>.05) and the Gonzales issue (r=.046, p>.05), the moderate blogs within this sample did not have a shared agenda. However, like the right-leaning blogosphere, the moderate blogosphere yielded a significant ICC for the Iraq issue (r=.246, p<.05).

These findings provide support for H6. As these findings highlight, blogs that share partisan ties are significantly more likely to have a correlated issue agendas. This finding was particularly strong for the left-leaning blogosphere which showed high ICC for all three issues under investigation in this study.

MEDIA AGENDA CORRELATIONS

Did the *New York Times* and the *Washington Post* have a shared media agenda, issue by issue? And, how well did these two media entities correlate the agendas between their news articles and their blog postings? Research questions three through six question the relationship between these two elite media entities as well as the relationship between these media entities and their blogs. Understanding these relationships can go a long way in helping to frame the discussion of the media agenda that is hypothesized to exert

primary influence on the blogosphere at the issue level. More importantly, examining the relationships between these two elite media entities can explain how social influence may create shared media agendas across different traditional media entities.

RQ 3 probes the extent of correlation between the issue agendas of the *New York Times* and the *Washington Post.* On the Iraq issue, both the *New York Times* and the *Washington Post* had a significant ICC (r=.481, p<.05) on their media agendas. The agendas between these two elite media newsrooms was also significant on the Craig issue (r=.546, p<.05). However, an insignificant ICC was found between the *New York Times* and the *Washington Post* (r=.073, p>.05) on the Gonzales issue.

How correlated were the media agendas of each online newsroom with its newsroom blog? Research questions 4 and 5 examine the relationship between the media's online newspaper and its blog on issue agendas. Results reveal that across most of the different issues, little correlation was found between the online newspaper and its blog. The only significant correlation was found on the Iraq issue between the *Washington Post* and the *Washington Post* blog (r=.505, p<.05). On the Craig issue, all other correlations were insignificant, and these included the ICC between the *New York Times* and the *New York Times* blog (r=.089, p>.05), and between the *Washington Post* and the *Washington Post* blog (r=.221, p>.05). On the Gonzales issue, the ICC between the *New York Times* and the *New York Times* blog (r=-.091, p>.05) was insignificant as was the ICC between the *Washington Post* and the *Washington Post* blog (r=-.098, p>.05).

RQ 6 questions the nature of social influence across media entities as it relates to their blogs. Interestingly, all of the correlations between the *New York Times* blogs and the *Washington Post* blogs were significant through each of the three issues. A significant ICC was found for the Gonzales issue between the *New York Times* blog and the

Washington Post blog (r=.552, p<.05). On the Craig issue, the ICC between the *New York Times* blog and the *Washington Post* blog was also significant (r=.669, p<.05). Finally, on the Iraq issue, a significant ICC was found between the *Washington Post* blog and the *New York Times* blog (r=.522, p<.05).

VISUALIZING NETWORK CONNECTIONS AT THE ISSUE LEVEL

Network analysis visualizations provided additional support for all of these intra-class correlations. Figures 17 through 19 (Appendix B) provide network visualizations of the four blog networks on the different issues. These network visualizations, derived from tracing hyperlink connections, provide a different perspective on the network connectivity of these different actors through tracing their hyperlink connections at the issue level. Figure 17 shows the network connections on the Craig issue. As the visualization highlights, the left-leaning blogosphere is tied together by strong reciprocal ties within its partisan network. The conservative blogosphere has some reciprocal ties, but not nearly as strong as the left-leaning blogosphere, a scenario which is represented by a correlation coefficient within the right-leaning blogosphere that is barely significant for this issue. The *New York Times* and the *Washington Post* blogs are linked to from the right-leaning and left-leaning blogs respectively. There are no connections among the moderate blogs on the Craig issue. Two blogs, the right-leaning blog *Little Green Footballs* and the moderate blog *The Van Der Galien Gazette* remain disconnected from the network.

Figure 18 shows the network connections of the left-leaning blogosphere, the right-leaning blogosphere, the moderate blogosphere and traditional media blogs on the Gonzales issue. As the figure highlights, the right-leaning blogosphere and the moderate blogosphere remain disconnected on this issue, a fact noted by the high number of

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disconnected blogs, or isolates, from these ideological spectrums without links to other blogs on the issue. Quite the opposite, a few of the left-leaning blogs, notably *Think Progress* and *Talking Points Memo,* join the left-leaning blogosphere together by strong partisan, reciprocal ties. As evidenced by the large size of the node, both of these blogs also receive a large quantity of links from their other left-leaning blog peers. Of the traditional media blogs, the *Washington Post* links to the left-leaning blogosphere on the issue, but this linkage is not reciprocated by the left-leaning blogosphere.

Figure 19 shows the network connections on the Iraq issue across the left-leaning blogosphere, the right-leaning blogosphere, the moderate blogosphere, and the traditional media blogs of the *New York Times* and the *Washington Post.* Once again, like the Craig and the Gonzales issue, this visualization shows a dense network of reciprocal ties among the left-leaning bloggers. Right-leaning bloggers also maintain a dense connection of ties among blogs that share their partisan ideology. Unlike the other two issues, there are several blog nodes that receive a large quantity of links, as evidenced by the larger size of the nodes. Unlike the other two issues, all of the blogs selected in this sample either created a hyperlink on their blog or linked to another blog, hence, there are no isolates in this network. However, like the former two issues, this visualization shows a strong social network of partisan ties, particularly among left-leaning bloggers. Though right-leaning bloggers are less inclined to link with as much intensity or reciprocity as left-leaning bloggers, their networks cohere along partisan lines.

These visualizations also provide data on the issue level for H4, which predicted that moderate blogs would be significantly more likely to serve as bridges to the partisan blog networks as opposed to partisan blogs. The previous chapter, which provided some preliminary answers yielding partial support for this hypothesis, provided centrality

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measures at the general level, and this chapter provides some more answers to the question at the level of each specific issue.

Centrality indicators, which are comprised of two relevant sub components: a node's degree (comprised of incoming links, or indegree, and a node's outgoing links, or outdegree) and a node's betweeness (its ability to connect blogs), provide some indication of a blog's potential agenda setting power to spread and diffuse information. All three network diagrams superimpose a larger size to the blog node based on a high degree of incoming links. For the Craig issue, both the *Washington Post* and the left-leaning blog *Talking Points Memo* are the recipients of the most links. For the Gonzales issue, it appears that traditional media gains less incoming links, and for this blog network, the left-leaning blogs *Think Progress* and *Talking Points Memo* are viewed as authorities, in some respect. For the final issue, Iraq, both media and blogs seem to gain their share of incoming links. Both the *New York Times* and the *Washington Post* appear to receive a large share of incoming links as do the left-leaning blogs *Talking Points Memo, Think Progress* and the *Huffington Post.* Right-leaning blogs *Michelle Malkin* and *Captain's Quarters* also appear to be a source of influence on the issue of Iraq.

Comparing the different blog networks by their centrality scores provides some interesting data. Consistent among the different issues is the high betweeness scores for *The Moderate Voice,* a finding which is in keeping with the prediction in H4 that moderate blogs would serve a bridging function among different blog networks. However, this moderate blog is the only one with a high betweeness score, suggesting that most moderate blogs do not serve as bridges to the blogosphere. Interestingly, media blogs have high betweeness scores; the *New York Times* blog has the second highest betweeness score for the Iraq issue (14.415), second to *The Moderate Voice* (27.442). On the Craig issue, the *Washington Post* has the highest betweeness score (17.480), with *The*

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Moderate Voice closely behind it (16.561). These findings as they relate to media blogs show that traditional media is using its blog to connect the different partisan voices in the blogosphere. This synthesizing function of the media blog will be explored more in the discussion section (chapter 11).

A TEST OF FIRST-LEVEL AGENDA SETTING

Though the results above provide data on the correlation among agendas between the five different media (left-leaning blogs, right-leaning blogs, moderate blogs, traditional media and traditional media blogs), correlation coefficients cannot be interpreted as evidence of causation. More stringent tests are needed to decipher directional influence beyond correlations as the latter only provides evidence of broad agreement. In order to test the several hypotheses advanced on issue agenda setting, Ordinary Least Squares regression to estimate Granger causality was used.

Many of the hypotheses required a test of how effective the blog or media was at setting its own agenda. Determining the effect of the blog or media's prior agenda on its current agenda provided a test of the optimal time lag for testing the media's or blog's agenda setting impact on each other. Table 28 (Appendix A) provides one-day lagged correlations of the blog and media's agenda based on its agenda the prior day while Table 29 (Appendix A) provides these correlations based on a two-day time lag. As these tables highlight, all of the blogs and media's agenda was best predicted by its agenda the day before. Using a lag of any longer than 1 day yielded insignificant correlations (see Table 29) between the blog or media's agenda at the present time with its agenda in a previous time point. As such, the hypotheses advanced on issue agenda setting were all tested using lags of 1 day, since these lags were optimal at predicting a blog's or media's agenda based on its past agenda.

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H8 predicted that media would be more likely to set the issue agenda of blogs than blogs will be at setting the issue agenda of media. This hypothesis was not supported at both the pooled issue level and at the individual issue level using the Iraq issue, primarily because of the media's inability to set the agenda for left-leaning blogs. Table 30 (Appendix A) presents the results at the pooled issue level while Table 31 (Appendix A) presents these results in relation to the Iraq issue. As the results highlight for the pooled level (Table 30, Appendix A), media is indeed effective at setting blog agendas. Using the syntax of Granger causality, noting that the word agenda setting is substituted by the word 'cause,' media does Granger cause the right-leaning blog agenda ($t(2, 54)=2.28$, $p<.05$), the moderate blog agenda ($t(2, 54)=2.18$, $p<.05$), and its own media blog agenda ($t(2, 54)=3.06$, $p<.05$). But, the media does not Granger cause the left-leaning blog agenda ($t(2, 54)=1.29$, $p>.05$).

Isolating one issue, the Iraq issue, does not change the outcome of the results, as Table 31 (Appendix A) reveals. Examining the Iraq issue for media's issue agenda power revealed that media does Granger cause the right-leaning blog agenda ($t(2, 36)=3.15$, $p<.05$), the moderate blog agenda ($t(2, 36)=2.05$, $p<.05$) and the media blog agenda ($t(2, 36)=3.64$, $p<.05$). However, like the pooled issue agenda results, the media does not Granger cause the left-leaning blog network's agenda ($t(2, 36)=-1.18$, $p>.05$).

Support for H8 also required that the opposite effect of blog-on-media agenda be insignificant; however, this finding was not the case. Research question seven probed the ability of blogs to set the media's agenda and Table 30 (Appendix A) presents the agenda-setting results at the pooled issue level. These results highlight that the moderate blog network does Granger cause the media blog agenda ($t(2, 54)=5.02$, $p<.05$), as it does the right-leaning blog network ($t(2, 54)=3.18$, $p<.05$) and the left-leaning blog network ($t(2, 54)=2.62$, $p<.05$). Like the pooled issue agenda results, on the Iraq issue, it was

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found that blogs do Granger cause the media's issue agenda. According to Table 31 (Appendix A), the right-leaning blog network does Granger cause the media's blog agenda (t(2, 36)=2.38, p<.05), as does the moderate blog network (t(2, 36)=.422, p<.05) and left-leaning blog network (t(2, 36)=.375, p<.05).

Which blog network is most successful at setting the media's agenda? In answer to research question seven, it is apparent that all blog networks were successful in having some influence on the media agenda. In both the pooled issue scenario and in the Iraq case, all networks were able to influence the media's agenda with significant results. The moderate blog network has some of the higher significance values, making their neutrality a potentially appealing agenda for the media to adopt. This finding also supports the previous ICC correlations, which point to a highly correlated agenda between media and the moderate blogs. It is noted, however, that among the blog networks, the left-leaning blogs are the only ones able to exert influence on the media blog agenda: in the case of the Iraq issue, left-leaning blogs does Granger cause the media blog agenda (t(2, 36)=3.36, p<.05).

Support for H9 is also qualified by the ability of blogs to set each other's agenda. Through both the pooled issue scenario and the isolated Iraq issue case, blogs do Granger set each other's agenda. As Tables 30 and 31 show (Appendix A), the left-leaning blog network does Granger cause the agenda of the right-leaning blogosphere network on both the pooled issue scenario (t(2, 54)=2.83, p<.05) and in the case of the Iraq issue (t(2, 36)=4.12, p<.05). Right-leaning blogs had less agenda-setting power on other blogs, and in both scenarios (pooled and issue specific), this network was unable to set the agenda of other blogs. An interesting scenario of the moderate blog's power is shown by its agenda setting ability: the moderate blog network does Granger cause the issue agenda of the right-leaning blogosphere on both the pooled scenario (t(2, 54)=2.32, p<.05) and in the

case of Iraq (t(2, 36)=2.24). However, the moderate blog network does not Granger cause the left-leaning blog network's agenda at both the pooled level and the individual issue level.

RQ 7 opens exploration into the differential agenda-setting abilities of elite media in partisan blog networks. Interestingly, media was unable to set the left-leaning blogosphere's agenda. These network of bloggers, held together by a dense degree of strong, reciprocal ties, evaded the agenda-setting ability of the press in both the pooled issue scenario and through the isolated Iraq case. As the prior results have highlighted, the media is successfully able to set the issue agendas of the right-leaning blogosphere at both the pooled level and at the individual issue level.

As these results highlight, the scenario can best be described less as one of media setting blogs' agendas or blogs setting media agenda. Instead, the results best support shared influence between both the media and the political blogosphere.

MODELING ISSUE AGENDA SETTING RESULTS

Figure 20 (Appendix B) provides a diagram of the issue agenda-setting dynamics among the five networks of the left-leaning blogosphere, the right-leaning blogosphere, the moderate blogosphere, the media blogs, and the traditional media entities. In this diagram, directed ties (or ties that go one way, for example, A sets the agenda of B without B setting the agenda of A) are represented by an arrowed line while those connections that are undirected (or ties that go both ways, for example, A sets the agenda of B and B sets the agenda of A) are represented by lines that lack a directional focus.

As the diagram highlights, there are mutual agenda setting capabilities between the right leaning blog network and media, between the moderate blog network and media, and between media and the media blogs. However, the left leaning blog network is the

only network that was capable of setting other agendas as opposed to having its agenda set by others. The left-leaning blog network was successfully able to set the agenda of the right-leaning blogospehre and traditional media without these two latter entities being able to set the left-leaning blog network's agenda.

Chapter 10 turns attention to the attribute agenda-setting dynamics between blogs and media and among the different blogs within their blog networks.

Chapter 10: Attribute Agenda Setting

Hypotheses 10, 11, and 12 make predictions about the levels of correlations at the issue attribute level between media and partisan blog networks, as well as among the blogs that comprise each ideological political spectrum. As the previous results have shown, the left-leaning blogosphere is more prone to accept social cues from its network neighborhood of other left-leaning bloggers. In terms of the issues chosen for study in this dissertation, the right-leaning blogosphere seems more open to influence; however, like the left-leaning blogosphere, there is little conversation with the left-leaning blogosphere. However, as the prior chapter has shown, the left-leaning blogosphere is able to wield influence on the right-leaning blogosphere. The strong correlation between the moderate blogosphere's agenda and that of media, a scenario predicted by the advanced hypotheses in this study, has also been proved. The question can now be asked: to what extent do these different blog networks agree with the media on the framing of issues? Capturing the strength of strong ties, this dissertation also questions to what extent blogs accept social influence from their peers in the framing of the issues.

It is important to point out that this current chapter provides only preliminary evidence on the extent of agreement on the framing of issues between the blog networks and media and among blogs within their ideological spectrum. This chapter provides an open exploration into how blog networks balance media influence and social network influence; as such, no attempt is made in this chapter to prove directional influence. Proving such directional influence at the attribute level must first begin by testing whether there are correlated agendas. In this respect, this dissertation begins by first asking: to what extent do all five media entities (left-leaning blogosphere, right-leaning blogosphere, moderate blogosphere, media, and media blogs) agree on the framing of the

issue? And, what role does the partisan social network play in challenging media's framing of the issue?

MATCHING AGENDAS ON ISSUE ATTRIBUTES

Tables 32 through 34 (see Appendix A) present the raw data on the frequency of mention of issue attributes through the Gonzales, Craig, and Iraq issue respectively. Before running Pearson's correlations to determine the extent of agreement on the framing of the issues between and among the different networks, some of the data were transformed through logarithmic transformations in order to correct for a positive skew. Transforming the data enabled each data point that comprised the network to approximate more of a normal distribution.

Testing the hypotheses advanced in this study against all of the issues, H10 predicts that left-leaning and right-leaning blog networks are significantly less likely to have correlated attribute media agendas. This hypothesis was only partially supported. Table 35 (see Appendix A) presents the Pearson's correlations for the Gonzales issue. As the results show, left-leaning blogs (M=21.82, SD=21.68) and right-leaning blogs (M=4.09, SD=4.08) are not significantly correlated (r=-.353, p>.05) in their issue attribute agendas. Interestingly, on the Gonzales issue, the only correlations that were not significant were the right-leaning blogs' correlation with the attribute agendas of the other four media. Of the 10 unique correlations among the five different media, all four correlations with the right-leaning network and other media agendas are insignificant; however, the remaining six correlations involving the four other media attribute agendas (left-leaning, moderate, media and media blog) are significant.

Table 36 (see Appendix A) presents the Pearson's correlations for the Craig issue. On this issue, the partisan blog spheres of the left-leaning blogs (M=37.75, SD=30.14)

and the right-leaning blogs (M=9.25, SD=8.7) were significantly correlated (r=.820, p<.05) on their issue attribute agendas. Unlike the Gonzales issue, all five media attribute agendas on this issue, represented by 10 unique correlations, were significant.

On the Iraq issue, attribute agendas were matched on two subframes. One subframe of the Iraq issue was the Petraeus Report, with its associated discussion of Iraq and its real-world realities. The second subframe was MoveOn and its "Betray Us" Ad on Petraeus. Table 37 and Table 38 (see Appendix A) presents the Pearson's correlations for the attribute agendas of the Iraq issue on the subframes of the Petraeus Report and the MoveOn 'Betray Us' Ad debacle respectively.

Support was found for H10 on both subframes of this issue. On the Petraeus Report subframe of the Iraq issue (see Table 37, Appendix A), left-leaning blogs (M=2.49, SD=1.48) and right-leaning blogs (M=1.49, SD=1.16) were significantly less likely (r=.206, p>.05) to have correlated issue attribute agendas. Similarly on the MoveOn subframe of the Iraq issue (see Table 38, Appendix A), the left-leaning blogs (M=13.3, SD=14.26) and the right-leaning blogs (M=8.0, SD=7.2) were also significantly less likely (r=-.571, p>.05) to agree on the issue attribute agendas for this issue. On this Iraq issue, the Petraeus Report subframe saw significant correlations for all attribute agendas between media except the agendas of the right-leaning blog network with both the left-leaning blog network and the mass media attribute agenda (resulting in a total of seven out of ten significant correlations). On the MoveOn subframe, there was little to no agreement on how to interpret this issue among the media agendas. Correlations were only significant between the media agendas of the online newspaper and the media blogs and between the right-leaning network of blogs and the moderate blogs selected for this study. In sum total, only three of the 10 unique correlations were significant.

Tables 35 through 38 also provide preliminary data to answer H11, which predicted that blogs that share partisan ideologies will be significantly more likely to have correlated attribute media agendas when compared to their correlated attribute agenda with media. From these tables, it is possible to glean the relationship between these different networks and media, and support for this hypothesis would necessitate low to nonexistent media and blog correlations on their attribute agendas. However, this is not the case.

These tables highlight that many of the blog networks share a correlated attribute agenda with media. The left-leaning network bore strong correlations with the media's attribute agenda through many of the issues. On the Gonzales issue, the left-leaning network had a strongly correlated attribute agenda with the media ($r=.789$, $p<.05$) and the media blog ($r=.853$, $p<.05$). On the Craig issue, the left-leaning network of blogs also had a moderate to highly correlated attribute agenda with both media ($r=.686$, $p<.05$) and the media blog ($r=.855$, $p<.05$). This scenario followed through to the Petraeus Report subframe of the Iraq issue. For this subframe of the Iraq issue, the left-leaning blog network had a significant attribute agenda correlation with both the media ($r=.680$, $p<.05$) and the media blog agenda ($r=.708$, $p<.05$).

The right-leaning blog network revealed less of a relationship with media agendas at the attribute level. The Craig issue was the only one in which the right-leaning network of blogs correlated with the media attribute agenda. On this issue, right-leaning blogs had a moderate to highly correlated agenda with both the media ($r=.797$, $p<.05$) and the media blog ($r=.933$, $p<.07$).

Support for hypothesis 11 also required that the blog agendas be correlated within their partisan blog networks. However, like the prior results that explore the attribute agenda correlations between partisan blog networks and media, this shared attribute

agenda among partisan blog networks only gained partial support, with its greatest support found in the left-leaning blog network.

In the right-leaning blog network, unqualified support was found for a shared network attribute agenda in relation to the Petraeus Report subframe of the Iraq issue. All 15 unique correlations among the six blogs in the right-leaning blog network were significant, with correlations ranging from .526 to .829. Other than this issue, the right-leaning blog network rarely revealed a significantly correlated issue attribute agenda. On the Gonzales issue, none of the 15 unique correlations among blogs in this network were significant. On the Craig issue, five of the 15 correlations were significant, with correlations ranging from .579 to .902. On the MoveOn subframe, only four of the 15 unique correlations among these six right-leaning blogs were significant.

The shared attribute agenda among partisan blogs gained its greatest support in the left-leaning blog network. Like the right-leaning network, left-leaning blogs were all unified on the Petraeus Report subframe of the Iraq issue. All 15 correlations among the six blogs that comprised the left-leaning blog network were all highly significant, with correlations ranging from .737 to .907. All other issues showed less of a unified attribute agenda among these partisan blogs; yet, it can still be said that good support was found for a shared attribute agenda among these left-leaning blogs. On the MoveOn subframe of the Iraq issue, 10 of the 15 correlations among these six left-leaning blogs were significant, with correlations ranging from .641 to .886. On the Craig issue, nine of the 15 correlations were significant, with correlations ranging from .646 to .892. On the Gonzales issue, 11 of the 15 correlations were significant, ranging from .641 to .871.

H12 predicted that moderate blog networks will be significantly more likely to have correlated attribute agendas with media than with blog networks. Like the former two hypotheses, this hypothesis only gained partial support. Tables 35 through 38 (see

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Appendix A) present data on the moderate blog network's correlation with other networks, including the left-leaning, the right-leaning, and the media's networks. A significant correlation between the moderate blog network (M=12.0, SD=6.93) and the left-leaning blog network (M=37.75, SD=30.14) was found for the Craig issue (r=.738, p<.05). The moderate blog network (M=4.36, SD=4.03) and the left-leaning blog network (M=21.82, SD=21.68) also revealed a significantly correlated attribute agenda for the Gonzales issue (r=.833, p<.05). On the Petraeus report subframe of the Iraq issue, the moderate blog network (M=1.69, SD=1.11) and the left-leaning blog network (M=2.5, SD=1.49) had a significantly correlated attribute agenda (r=.668, p<.05).

The moderate blog network also shared a significantly correlated attribute agenda with the right-leaning blog network, but the occurrence of these shared agendas was much less frequent than that of the moderate blog's network relationship with the left-leaning blogosphere. On the Craig issue, the moderate blog network (M=12.0, SD=6.93) and the right-leaning blog network (M=9.25, SD=8.7) had a significantly correlated attribute agenda (r=.628, p<.05), while on the MoveOn subframe of the Petraeus report, the moderate blog network (M=3.4, SD=3.47) also had a significantly correlated attribute agenda (r=.716, p<.05) with the right-leaning blog network (M=8.0, SD=7.19).

Moderate networks were significantly correlated in their attribute agendas with the media network for all issues save the MoveOn subframe of the Iraq issue. As tables 35 through 38 (see Appendix A) highlight, the moderate blog network was significantly correlated with both the media and the media's attribute agenda on the Gonzales issue, the Craig issue, and the Petraeus Report subframe of the Iraq issue. For all of these issues, correlations between the moderate blog network and the media network ranged from .582 to .792, while the correlations between the moderate blog network and the media blog network ranged from .673 to .852.

How did the moderate blog network cohere within its ideological spectrum on issue attributes? Like the hypothesis predicted, moderate blogs do not have a shared agenda. On the Gonzales issue, only three of the 15 correlations were significant. On the Craig issue, only three of the 15 correlations were significant. For the Iraq issue subframes, five of the 15 correlations were significant for the Petraeus Report, while for the MoveOn subframe, only one correlation of the 15 unique correlations were significant.

As this chapter's results highlight, moderate and left-leaning blogs share strong attribute agendas with the media. Left-leaning blogs also share a highly correlated attribute agenda within their social networks of shared partisan ideology. Unlike the left-leaning blog network, the right-leaning blogs cohere less along partisan lines, revealing an attribute agenda that is shared only on highly divided partisan issues, like Iraq. The assumption that these partisan spheres differ all the time is also erroneous. As the Craig issue highlights, both the left-leaning blog network and the right-leaning blog network shared a significant attribute agenda correlation. These findings point out that there is common ground on some issues between partisan blog networks.

MODELING ATTRIBUTE AGENDA RESULTS: CASE STUDY OF IRAQ

Figure 21 (Appendix B) provides a diagram of the correlated attribute agendas among the five networks of the left-leaning blogosphere, the right-leaning blogosphere, the moderate blogosphere, the media blogs, and the traditional media entities on the Petraeus Report subframe of the Iraq issue. In this diagram, the lines connecting two networks provide visual representation to a significant correlation. Thicker lines represent stronger correlations, while the absence of a line connecting two agendas represents a nonsignificant correlation between network attribute agendas.

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As this issue subframe highlights, the media agenda correlates closely with many of the blog networks, with the exception of the right-leaning blog network. The only significant correlation for the right-leaning blog network is its correlation with the moderate blog attribute agenda. Thicker lines, which show evidence of stronger correlations, present highly correlated agendas on the Petraeus subframe of the Iraq issue between the left-leaning blog network and the media blog and the media and its media blogs.

Chapter 11 turns attention to a discussion of this study's various findings.

Chapter 11: Discussion

This dissertation sought to examine how agenda-setting theory and social networks function to spread information in the networked political blogosphere. In order to examine this broad goal, 18 blogs were selected as elite bloggers in the political blogosphere. These 18 blogs, six from the left-leaning blogosphere, six from the right-leaning blogosphere, and six from the moderate blogosphere, were examined on three issues: the Larry Craig sex scandal, the Alberto Gonzales hearings on the NSA surveillance program, and the Iraq issue, concentrating focus on the latter issue to the Petraeus Iraq Study Report and the MoveOn "Betray Us" Ad.

In conjunction with analysis of these 18 blogs, two elite media newsrooms, the *New York Times,* and the *Washington Post,* were assessed for their media agendas as represented in their online articles and blog posts. In sum total, five media agendas were examined (left-leaning blogosphere, right-leaning blogosphere, moderate blogosphere, traditional media, traditional media blogs) in the effort to assess the agenda setting dynamics and social network influences between media and blogs and among the different blog ideological networks.

Before exploring the meaning of some of this study's findings, it is instructive to examine how the different issue characteristics may have impacted the results of some of the advanced hypotheses and research questions.

THE IMPACT OF ISSUE CHARACTERISTICS

What role did issue characteristics play in the outcome of this study's results? For this study, the decision was made to select issues that gained the most traction in the blogosphere and traditional media's agenda over approximately two months. This method

would enable a scientific and highly systematic procedure to the selection of the issues, while avoiding the bias of hand-selecting issues. Issues would be selected based on the quantity of postings and on a minimum number of channels (blogs and traditional media) providing content on the issue.

Though an original slate of over 15 issues occurred during that time period, only three issues were discussed in enough detail to support a second-level agenda setting analysis. Yet, there was still a paucity of data for some of the issues within the blog networks, particularly with respect to the right-leaning blogosphere. It is clear that the lower posting volume of the right-leaning blogosphere was due to the negative tilt of many of the issues towards its party. This scenario is best illustrated by its silence on Alberto Gonzales's testimony on the NSA wire-tapping program, one of the bigger media events occurring during the week of July 24, 2007 to August 2, 2007. Examining the posting volume, left-leaning blogs posted almost six times as much as the right-leaning blog network.

The negative tilt of the issues for the right-leaning blogosphere makes any relationship between blog posting/linking volume and blog influence difficult to translate. Without assessing the political repercussions of each issue for US politics, this study's results support more recent findings that the new progressive blogosphere has now outpaced the conservative blogosphere in popularity and Web activity (Stoller, 2007). The results show that for all three issues, the left-leaning blogosphere significantly outranked the right-leaning in posting ($f(2, 15)=26.201$, $p<.05$) and linking volume ($f(2, 15)=15.47$, $p<.05$). Regarding posting volume, on the Larry Craig issue, the left-leaning blogosphere posted almost five times as much as the right-leaning blogosphere. On the Iraq issue, left-leaning bloggers posted almost three times as much as the output from the right-leaning blogosphere.

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However, issue characteristics play a significant part in the willingness of the partisan blogosphere to comment on any given issue. As it pertains to the right-leaning blogosphere, the paucity of posts and links across the three issues could be a tactical position against commenting on issues that reflect negatively to the party. The right blogosphere's unwillingness to write about these negative issues highlights their acute understanding of how information becomes popular on the Internet. Within the political blogosphere and search engine rankings, issue popularity is related to how much content is written on the subject, how many links point to that issue-specific content, and how many visitors read that specific issue content. The right-leaning blogosphere's hesitancy to comment on these three issues could indicate an attempt to suppress the issue through conscious avoidance to dedicate content, links, and Web traffic to the said issue.

Yet, there is some credence in Stoller's (2007) observation that the left-leaning blogosphere has currently outpaced the right-leaning in popularity with blog readers and writers. This study concentrated on elite bloggers, whose blog output should surpass less-elite bloggers on the issues of the day. It is a surprising finding that the right-leaning blogosphere's network was so loosely tied, and this network's connections contrast sharply to the tightly connected, reciprocated ties of the left-leaning blogosphere (see figures 13, 17, 18, and 19, Appendix B). The negative import of these issues for the Republican party could have been the fuel for the left-leaning blogosphere's prolific posting.

The non-topical posting of the right-leaning blogosphere on the Gonzales issue leads one to question what they were writing about during this time period. Informal further analysis into all of the blog postings of right-leaning blogs during the July 24, 2007, to August 2, 2007, time period reveals that right-leaning blogs lacked a unified agenda. Some chose to talk about Iraq. Others dedicated attention to the 2008 presidential

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election and to a critique of the Democratic contenders for their party's nomination. Others chose to simply point out factual updates on the hearings. Only one right-leaning blog, Powerline, wrote with indepth analysis on the issue; even then, Powerline's output in no way approximated the quantity of postings from any one left-leaning blogger.

Issue characteristics also played a role in the outcome of many of this study's results. The impact of issue characteristics will be further explored in reference to this study's many findings in the subsequent sections to this chapter.

EXPLORING HYPERLINK FINDINGS

The Nature of Partisan Affiliation

This study set out to examine the contribution of political blogs to democracy. Blogs, the fastest growing segment of social media applications, have gained greatest visibility through the genre of political blogging. Chapter 2 outlined the growth of the political blogosphere and its close association with real-world US political events. The utopian ethic of bottom-up or emergent democracy (Hagel, 2000; Lee & Frankel, 1999; Ito, 2003), espoused by many Internet theorists as one of the most significant contributions of blogs, was tested in this study through examining how information flows among the different ideological spheres of the political US blogosphere. Many prior studies show few connections between the left-leaning and the right-leaning blogosphere (Adamic & Glance, 2005; Welsh, 2005; Tremayne, 2007). These limited connections threaten democracy through creating issue publics exposed to limited argument pools, a scenario that Sunstein (2000, 2002) warns can create more extreme positions on issues than that of pre-deliberation tendencies among homophilous issue publics.

Unlike prior studies taken at one time point, this study gave a more robust test to partisan blogging practices through tracking ideological blog network content in three different issue time periods. This study undertook a test of both blog posts hyperlinks as well as blog posts content to examine the extent of overlap between the left-leaning and the right-leaning blogosphere. This study found strong evidence to support prior findings on the limited discourse between the left-leaning and the right-leaning blogosphere through both hyperlink analysis and textual content analysis.

Conducting a hyperlink analysis across all issues, left-leaning blogs were significantly more likely to link to other left-leaning blogs (f(3, 20)=22.485, p<.05), while right-leaning blogs were significantly more likely to link to other right-leaning blogs ((f(3, 20)=5.150, p<.05). These results were replicated on an issue-by-issue basis for the left-leaning blogosphere, and for all issues except the Gonzales issue for the right-leaning blogosphere.

How dangerous are differences in linking practices across the partisan blogosphere? The lack of conversation between these two spheres can prove dangerous to deliberative discourse, and it is possible, as Sunstein (2002, 2001) warns, that extreme interpretations to situations could occur because of exposure to limited argument pools, due to the homogeneity of the groups. It was difficult to miss the sometimes-rabid rants from both partisan spheres as they sought to push their different agendas on to their reading publics. These rants were most noticeable on the highly partisan issue of Iraq. Interestingly, the difference in framing of issues by both the left- and the right-leaning blogosphere suggests that there could be the potential for discourse that approaches the ideals of true deliberation if both sides were conversant with each other.

Prior studies have found a measured amount of cross-linking between partisan spheres (Meraz, 2005; Reese et al., 2007; Tremayne, 2007), and this study also found that

there was a very small degree of cross-linking between the two partisan spheres. Tables 39 and 40 provide information on the cross-partisan linking practices of the left-leaning and the right-leaning blog networks across the different issues with the data extending beyond the sample of 18 blogs selected for this study.

Though linking between partisan walls is almost nonexistent, the small number of cross-links that occur between issues may be enough to inject difference into these networks. Many of these links are to elite bloggers in the separate partisan networks, bolstering the idea that elite bloggers of either partisan spectrum have no difficulty in being linked to from blogs that do not share their political beliefs (Meraz, 2005). Thus, the role of the elite blogger extends beyond their leadership role within their social networks. Interestingly, the elite blogger is also able to bridge networks, a role that is predicted more for the moderate, weakly-connected blogger (Granovetter, 1973, 1982).

It is difficult to gauge the contribution of these non-partisan links to issue interpretation. Both the left-leaning and the right-leaning blogosphere were content to frame issues in a different manner, a finding more deeply explored in this chapter's upcoming section on assessing this study's second-level agenda findings. It is possible that cross-linking's primary impact was to bolster support for a unified, shared agenda among blogs that share partisan ideologies. Cross-linking did not serve a purpose of bringing the left-leaning and the right-leaning blogs' agendas closer together.

Moderate Blogs: Hope for Democracy?

As hypothesized in this study, moderate blogs maintained less partisan linking practices as evidenced by a lack of significant difference in links to the left-leaning blogosphere, the right-leaning blogosphere, or to media blogs across all issues ($f(3,$

20)=.965, p>.05). This finding was also replicated on an issue-by-issue basis for the Gonzales issue (f(3, 20)=1.41, p>.05), the Craig issue (f(3, 20)=1.41, p>.05), and the Iraq issue (f(3, 20)=.168, p>.05).

The evidence highlights that moderate blogs, due to their weak ties to the different partisan spheres, provide more balanced information than either of the partisan spheres. This finding is predicted by the theory of the strength of weak ties: as Granovetter (1973, 1982) points out, weak ties are able to bridge intergroups and move in different informational circles, providing a greater source of information than strong ties which tend to be homogenous in nature. The moderate blogs' divorce from partisan ties is evidenced by their more egalitarian linking practices—moderate blogs are less likely to have top-heavy power laws (see Figure 16, Appendix B) and less likely to have a few sites garner the most links. Yet, the persistence of the power law in the moderate network highlights that there is always a measure of elitism in World Wide Web networks, even in those networks that claim no specific affiliation to any one entity.

Moderate blogs can only be a hope for democracy if they are able to gain a substantial enough audience readership. Aside from *The Daily Dish,* few moderate blogs make it to the top or popular lists. The lower posting volume of the moderate blogs, coupled with the low levels of links to the moderate blogosphere from either the left-leaning or the right-leaning blogosphere (see figures 13, 17, 18, and 19, Appendix B), heightens the isolation of these blogs from public consumption. The public's penchant for reading news online with a partisan bent, evidenced by the strength of partisan political blogs in top 100 blog lists, makes the contribution that moderate blogs can make to democracy difficult to realize because of the lack of broad appeal that these blogs have in the public's estimation.

Media Preferences in Partisan Networks

A central goal of this study was to assess the media's agenda setting potential in the networked political blogosphere. To date, very few studies have explored the agenda-setting dynamics between mass media and political blogs (Cornfield et al. 2005). Hyperlink analysis afforded the opportunity to examine one dimension of agenda setting and gatekeeping through examining the links of blog networks across the ideological spectrum as well as the links created by the elite traditional media blogs of the *New York Times* and the *Washington Post.*

The partisan division between the left-leaning and the right-leaning blogosphere, evidenced in their hyperlinking practices to each other, carried over to their media choices. The left-leaning blogosphere and the right-leaning blogosphere were significantly more likely to disagree on their media choices across all issues (r=.458, p<.05). The right-leaning blogosphere was more likely to cite such publications as *The Hill* and the *National Review,* publications that were less popular with the left-leaning blogosphere.

How dangerous are different media preferences? As the top linked domain tables for the left-leaning, the right leaning and the moderate blogs show (see Tables 20, 21, and 22, Appendix A), the *New York Times* and the *Washington Post* maintain relevancy as elite news sources in all networks. As prior intermedia agenda setting studies have shown (Reese & Danielian, 1989), more elite media are likely to set the agenda for less elite media. It is possible that different media preferences between the partisan blog networks may not prove harmful to democracy.

The danger exists less in the relative standing of each media entity and more in the selective usage of media to support opinionated arguments. It is apparent that political blogs use media to support their partisan argumentation. This selective attention to media

based on its support for partisan argumentation is heightened by the fragmented nature of news delivery over the Internet (Williams & Delli Carpini, 2000a, 2000b), a reality that makes it difficult to speak of the media's gatekeeping role in World Wide Web networks. Can traditional media really function as a gatekeeper if blogs can pick and choose what information to respond to, based on its value to their issue publics? Deeper analysis to this question will be provided in the sections that discuss issue and second-level attribute agenda setting.

Though the ubiquitous power laws in each network suggest a strong element of elitism in all of the ideological blog networks in this study (see Figures 14, 15, and 16, Appendix A), the strong attention to citizen media is a finding that suggests the growing importance of non-traditional media to issue and issue interpretation. Based on a hyperlink analysis, findings across all issues and across all blog networks (t(34)=-1.49, p>.05) show no significant differences in links given to citizen or traditional media. On an issue by issue basis, the right-leaning and the moderate blog network were equally as likely to link to citizen or traditional media; only in the left-leaning network for the Gonzales issue was traditional media more linked to than citizen media.

This finding suggests that traditional media no longer has monopoly power over setting the agenda in the networked political blogosphere. Though power laws abound in these blog networks, blogs across the ideological spectrum are equally as likely to depend on citizen media as traditional media when linking to issue topics and when interpreting issues for their issue publics. The continued relevancy of traditional media is balanced by an equal dependence on citizen media for the agenda of the day.

ISSUE AGENDA SETTING: MEDIA AND THE IMPACT OF SOCIAL NETWORKS

This study sought to test the tenability of mass communication theories (agenda setting, gatekeeping, and the two-step flow) to the emerging, networked political blogosphere. One of the more popular mass communication theories is agenda setting setting theory, and this dissertation tested the influence of two elite media entities, the *New York Times* and the *Washington Post,* on elite blog agendas at the issue level. This dissertation predicted that these elite media entities would have greater success at setting issue agendas than elite blog entities would at setting traditional media's issue agenda. This study also hypothesized that media would be more successful at setting the blogs' issue agenda than the blogs would be at setting each other's issue agenda.

However, this study also examined the role of social networks in influencing issue agendas among blogs that share political ideologies. This dissertation predicted that blogs of shared partisan orientation would have more correlated issue agendas. As it related to the moderate network, their lack of partisan affiliation made it more tenable to hypothesize that traditional media's issue agenda would correlate more highly with the moderate blog network's issue agendas as opposed to partisan political blog networks.

Past studies examining the relationship between the two-step flow and agenda setting posited that mass media is vital at the informational level while interpersonal communication works on attitudes and behaviors (Troldahl, 1966-1967). The affect of interpersonal communication on the press's agenda setting function has yielded mixed results—some studies have found that interpersonal communication hinders the press's agenda setting effect (Wanta & Wu, 1992)—while others have found that interpersonal communication amplifies the press's agenda-setting effect (Robinson & Levy, 1986).

In this study, the media's agenda-setting power was evidenced at the issue level with all blog networks except the left-leaning blogosphere (see Tables 30 and 31,

Appendix A). OLS regression was used to estimate Granger causality, using one-day lags to predict the media's ability to set the blog's agenda and vice versa. The results provided agenda setting tests at a pooled level (using all time points as a test to avoid an inflated error term) and using the Petraeus issue as a single time point test.

The media was successfully able to set the agendas of the right-leaning blog network at the pooled issue level (t(2, 54)=2.28, p<.05) and in relation to the Iraq issue (t(2, 36)=2.05, p<.05). Similarly, the media was successfully able to set the agendas of the moderate blog network at the pooled issue level (t(2, 54)=2.18, p<.05)and in relation to the Iraq issue (t(2, 54)=2.05, p<.05). However, unlike the right-leaning and the moderate blog network, the media was unable to set the issue agenda of the left-leaning blogosphere at both the pooled issue level (t(2, 54)=1.29, p>.05) and in relation to the Iraq issue (t(2, 54)=1.18, p>.05).

The reverse level of influence from blog-to-media also produced surprising results. There was strong evidence of blog-to-media influence across both the pooled scenario and at the individual issue level (see Tables 30 and 31, Appendix A). All blogosphere spectrums proved able to set the media's agenda, with the moderate blog being able to set not only the media's agenda but the media blog's agenda. The right-leaning blogosphere was able to set the media's agenda at the pooled issue level (t(2, 54)=3.18, p<.05) and in reference to the Iraq issue (t(2, 54)=2.38, p<.05). Similarly, the left-leaning blogosphere exerted influence on the media agenda through reference to the pooled issue level (t(2, 54)=2.62, p<.05) and in relation to Iraq (t(2, 54)=.375, p<.05). Like its partisan counterpaths, the moderate blog network also set the media's agenda at both the pooled issue level (t(2, 54)=5.02, p<.05)and in relation to the Iraq issue (t(2, 54)=.422, p<.05). These results seem to suggest that the media is now sharing influence with blogs, highlighting the increasing political relevance of blogs to both the mass media

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agendas and the public agenda. Though media's power at the issue level continues to exist, it is important to point out that its influence is not guaranteed with all issue publics.

Does the need for orientation help to explain why the mass media seemed unable to set the left-leaning blog network's agenda? This psychological component of agenda setting, comprised of relevance and uncertainty, could offer some explanation for the left-leaning blogosphere's seeming resistance to issue agenda setting. It could be, as Stoller (2007) pointed out, that left-leaning bloggers are becoming more involved in first-hand reporting; as such, they are less uncertain about issues. However, it is more probable that their uncertainty is diminished by the new media environment, which provides access to an unlimited amount of news sources from other traditional media outlets, citizen media, and independent news publications (Williams & Delli Carpini, 2000a, 2000b). These unlimited news sources provide multiple avenues for bloggers to respond to content. The sheer quantity of news on the Internet, coupled with the immediacy of the environment, reduces the lag time required for bloggers to respond to the news media agenda.

The fact that there is no one media agenda also complicates the theory of agenda setting. This abundance of media options, predicted by Anderson's (2006) long tail economics, means that bloggers can set their own issue agenda based on what they decide to focus on; in the case of the Petraeus issue, left-leaning bloggers probed the authenticity of the report weeks before the report was delivered. There is no longer one media agenda, and this fragmentation can easily foster the growth of partisan issue publics. This scenario led to a much more prolific output on the Iraq issue among left-leaning bloggers when compared to the media's agenda. The reality of news distribution in the new media environment makes the issue agenda-setting function of the press more difficult to achieve because of the sheer quantity of issues that bloggers have at their disposal to respond to.

Clearly, the impact of a blog's network neighborhood or its social network provides strong support for the competing theory of the two-step flow as a tenable theory in the new media environment. The impact of a strong social network was particularly evident in the left-leaning blogosphere. Intra-class correlations among the issue agendas of the six blogs comprising the left-leaning blog network in this study provided significant relationships in relation to the Gonzales issue (r=.225, p<.05), the Craig issue (r=..292, p<.05), and the Iraq issue (r=.521, p<.05). Strong social influence ties within partisan blog networks was also evidenced in reference to the right-leaning blogosphere; significant correlations were found among the six blog issue agendas for the Craig issue (r=.131, p=.05) and the Iraq issue (r=.403, p<.05). The lack of strong social ties in the moderate blogosphere led to non-significant intra-class correlations among the six blogs within this network for the Gonzales issue (r=.046, p<.05) and the Craig issue (r=-.067, p<.05). However, the moderate blogosphere had a cohered issue agenda among the six blogs that comprised the network on the Iraq issue (r=.259, p<.05).

Network visualizations of the left-leaning blog network at all issues (see Figure 13, Appendix B) and in individual issue-by-issue basis (see Figure 17, 18, and 19, Appendix B) provide proof of strong, reciprocal connections in the left-leaning network. These network visualizations give tangible representations to the connections that block the media from being able to set the left-leaning blogosphere's issue agenda.

The findings at the issue level of this study provide proof of the significance of social networks and social influence as an agenda setter in the political blogosphere. Though the agenda setting function of the press is still active and influential in the political blogosphere, a competing and complementary force is a blog's network neighborhood of partisan blog peers. The two-step flow, revised in this context to stand for opinion sharing among elite bloggers, demonstrates the significance of strong ties in

this highly partisan US political blogosphere. The strong coherence of the left-leaning blog network, coupled with the separation of the right-leaning network from the left, highlights that social influence is a strong, growing force in the setting of issue agendas in the US political blogosphere.

ATTRIBUTE AGENDA SETTING

As an initial exploration into the second level agenda setting dynamics between mass media and blogs and among the different blog networks across the political ideological spectrum, this study examined the nature of correlated attribute agendas among the five different media agendas (left-leaning blog network, right-leaning blog network, moderate network, traditional mass media, traditional media blog). This study hypothesized that social influence would be more influential at this attribute level of agenda setting such that the media would not be as successful in transferring its attribute agendas to partisan blog networks.

The attribute level findings provide strong support for a correlated issue agenda among blogs that share partisan ideologies (H10); however, this finding was primarily proved in the left-leaning blogosphere. Across the Iraq issue (all 15 correlations significant), the Gonzales issue (11 of 15 correlations significant), and the Craig issue (9 of 15 correlations significant), the left-leaning blog network of six blogs was united in its interpretation of the issue. However, the right-leaning blog network was not as successful in maintaining a united attribute agenda. The only issue that showed any coherence in the social network of right-leaning blogs was the Iraq issue (all 15 correlations significant); for the Craig issue (five of 15 correlations significant) and the Gonzales issue (none of 15 correlations significant), the right-leaning blog network was

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held together by a loose set of ties that negated the power of social influence to dictate a shared media agenda.

There was also little correlation between the attribute agendas for the left-leaning blog network and the right-leaning blog network; for the Gonzales issue (r=-.353, p>.05) and the Iraq issue (r=.206, p>.05 and r=-.571, p>.05), there was little correlation in partisan attribute agendas. However, on the Craig issue (r=.820, p<.05), there was significantly strong correlation between these two partisan spheres attribute agenda. This shared correlation could be explained by the nature of the issue. There was little that both sides could disagree on in the framing of the issue. For the right-leaning blogosphere, there was shared agreement that Craig was bad for their party, and that his contradictory statements were damaging to his credibility and the credibility of the GOP party. Unlike the Gonzales issue, many right-leaning bloggers were compelled to report on the Craig scandal because of its ubiquity in both mass media outlets and in the other ideological spectrums of the political blogosphere.

This finding illustrates that there are issues in which it is possible to find a measure of agreement between the right-leaning blogosphere and the left-leaning blogosphere. Though such occasions are rare, it is clear that those situations of agreement between these partisan spheres are highly dependent on issues that are somewhat clear cut in its attribute dimensions.

Among the three issues, the Iraq issue showed the greatest partisan divisions in the blogosphere. As the attribute agenda setting findings showed, the left-leaning and the right-leaning blogosphere shared a unified agenda within their social networks. The clear division on the interpretation of this issue across the two subframes between the left-leaning and the right-leaning blogosphere is related to the highly partisan nature of the

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Iraq issue. This finding illustrates that the divide between the left-leaning blogosphere and the right-leaning blogosphere widens on highly partisan issues.

The two subframes on the Iraq issue, the Iraq Study Report, and the MoveOn Ad, were related to General David Petraeus. The active dispute about the report's true author led to early discussions about the implications and meaning of the report in the left-leaning blogosphere around mid-August, a full 26 days before the report was delivered. The right-leaning blogosphere chose to avoid too much commentary on the issue before September 10, and accused the left-leaning blogosphere of making up their minds before the report was delivered. These accusations between the left-leaning and the right-leaning blogosphere heightened the partisan nature of the issue. The MoveOn "Betray Us" ad continued to fuel this divide between the left and the right, resulting in a politicizing of the issue and what many political analysts saw as a distraction from a discussion of the war's repercussions.

What could have been responsible for the fragmentation in the right-leaning blog network? Issue characteristics could have played a strong role in eroding the power of social influence. The conscious avoidance of discussion on the Gonzales issue led to an agenda that was not unified among the right-leaning blogosphere. Regarding the Craig issue, the shock and disappointment that many right-leaning bloggers felt towards his actions led to many confusing blog posts, as they struggled to understand the unfolding story.

H11 predicted that the correlations between blogs and the media would not be as significant as those within blog partisan networks. However, this hypothesis was not supported. Interestingly, though blog networks exist for interpretation of media agendas, the left-leaning network was strongly correlated with the media agenda on the Gonzales issue (r=.789, p<.05), the Craig issue (r=.686, p<.05), and the Petraeus Report subframe

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(r=.855, p<.05) of the Iraq issue. However, there was little correlation in the attribute agenda of the right-leaning blog network with media. Only on the Craig issue (r=.225, p<.05) was the right-leaning blog network correlated with the media attribute agenda. The right-leaning blog network was the only one of the blog networks that actively resisted a shared attribute agenda with media.

These attribute agenda setting findings suggests that partisan blogs are reaching out more and more to their social networks for the interpretation of issues. Though the findings suggest that media still has strong relevancy in aiding in the interpretation of issues (a finding solidified by its strong correlation with the attribute agendas of the left-leaning and the moderate blogosphere), it now shares power with a blog's social network.

The MoveOn subframe of the Iraq issue took on its own dynamic in the relationship between media and blogs, and this subframe of the Iraq issue was the only aspect in which media and all blog networks did not share a correlated attribute agenda. The ad was bought in the *New York Times* newspaper at a discounted rate, leading to claims that this elite newsroom has a liberal bias by right-leaning blogs. Interestingly, this subframe yielded no significant correlations at the attribute level between media and any of the blogosphere's ideological spectrums (see Table 38, Appendix A). The only significant correlation on this issue subframe occurred between the moderate blogosphere and the right-leaning blogosphere (r=.716, p<.05).

This study hypothesized that the moderate blog network, more weakly tied to partisan networks, would show the strongest correlated agendas with the media. However, this hypothesis was not supported: on the attribute agenda setting analysis, moderate blogs showed a proclivity to balance their agendas not only with blog networks but with media networks (see Tables 35, 36, 37, and 38, Appendix A). Regarding the relationship between blog networks and moderate networks, moderate networks were

significantly correlated in their attribute agendas with the left-leaning network on the Gonzales issue (r=.833, p<.05), the Craig issue (r=.738, p<.05), and the Iraq issue on the Petraeus Report subframe (r=.668, p<.05). The moderate blogosphere was also significantly correlated with the right-leaning blogosphere on the Craig issue (r=.628, p<.05) and the MoveOn subframe (r=.716, p<.05) of the Iraq issue. This latter correlation yielded the only significant correlation between media agendas on the MoveOn subframe.

However, there were strong correlations between the attribute agenda of the moderate network with that of the media, both in terms of its traditional media content (articles) and in relation to the media blog. As predicted in this study, the media, the media blog, and moderate blog networks also shared attribute agendas across all issues aside from the MoveOn subframe of the Iraq issue (see Tables 35, 36, 37, and 38, Appendix A). This shared agenda also gains support in the network visualizations (see Figure 13, 17, 18, and 19, Appendix B) and in the centrality indicators (see Table 17, Appendix A). These indicators place the moderate blog *The Moderate Voice,* and the traditional media blogs of the *New York Times* and the *Washington Post* as blogs with high betweeness, meaning they are able to broker information between and among different blog intergroups.

MASS MEDIA AND ITS BLOGS

This study also provided an opportunity to examine how the newsroom uses its various political news blogs. The continued lack of external hyperlinking within traditional news stories prevented the assessment of news articles for their hyperlink connections; however, the news blog afforded the ability to examine how the newsroom is utilizing the hyperlink as a form of gatekeeping.

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Interestingly, this study reveals these elite, traditional mass media newsrooms are aggressively utilizing their blogs to deliver news: there was no difference in the quantity of material posted to the online newspaper or to its blog across all issues ($t(2)=2.184$, $p<.05$), and the blogs were actively linked to by blogs across the ideological spectrum.

How did these mass media elites use their newsroom blogs? Table 41 provides information on the top 20 media blog domains across all issues. This data excludes internal hyperlinking from a blog to itself or its parent media company. As the data shows, the most popular domain was the *New York Times,* suggesting that the *Washington Post's* blogs linked primarily to the *New York Times.* Similarly, the *Washington Post* was the fourth most popular domain, suggesting that the *New York Times* was also more prone to link to traditional media as opposed to linking to blogs. The bias towards turning to traditional media sources is evidenced by the fact that thirteen of these top 20 domains were traditional media domains.

Interestingly, the only two blogs in the top 20 are left-leaning blogs, the *Talking Points Memo* and the *Huffington Post.* Both of these blogs are authored by individuals who are or once were professional journalists. In the case of the *Huffington Post,* its group authorship includes not only journalists but other well-known figures in entertainment and politics.

These findings support previous studies that showed insular linking practices by journalist bloggers in their early adoption of the blogging platform (Singer, 2005). Like partisan blog networks, social influence and network neighborhood also play a significant role in the linking decisions by traditional news organizations. As this study' results highlight, traditional newsrooms are more comfortable linking to the blogs and online newspapers of more traditional mass media entities than linking to blogs authored by individuals who are not currently professional journalists.

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LIMITATIONS AND CONCLUSIONS

This dissertation set out to test the influences of agenda setting and the two-step flow in the US political blogosphere. Selecting blogs across the ideological spectrum, this study advanced a series of hypotheses and research questions geared towards testing various dimensions of agenda setting (first and second level) and social influence through examining both hyperlink connections and textual content.

The findings highlight the continued relevance of traditional media as an agenda setter of political blog issue and attribute agendas; however, these findings are qualified by the nature of the issue and by the partisan orientation of the blog network. The mass media was successfully able to set the right-leaning blog network and the moderate blog network agendas at the issue level; however, at the attribute level, traditional media's agenda only showed strong correlations with the left-leaning blog network and the moderate network.

However, the media's agenda was also susceptible to being set by the blog's, suggesting that there is mutual agenda setting influence between media and blog networks. All blog networks were able to set the media's agenda through reference to both the pooled issue scenario and in the isolated Iraq case study.

These findings only explain half of the picture. One very strong finding in this study was the agenda setting power of social influence. Social influence, tested as opinion sharing through the two-step flow mass communication theory, was evidenced as an agenda setter through primarily the left-leaning blog network. The lack of overlap between the left-leaning and the right-leaning blog network, measured through three layers of analysis (hyperlink analysis, issue agenda setting, and attribute agenda setting) highlighted the role of partisan orientation in creating homogenous issue publics bound by shared political beliefs.

The inability of the mass media to set the left-leaning blog network's issue agenda, and the strong correlations within this network on shared issue agendas suggests that social influence is a strong competitor to the media's agenda setting power. In the case of the left-leaning blogosphere, the traditional media was unable to exert agenda setting influence, and social influence helped explain the frequency of issue discussion on a day-to-day basis on the issues selected for examination in this study.

It is possible that the choice of only two media entities resulted in a skewed data set that biased the blog's ability to set the media's agenda. Though averages were used as the data for time series analysis, the greater frequency of posts emanating from the blog's agenda, particularly from the left-leaning blog network, was due to their ability to access many more media options aside of these two elite media entities. Since time series analysis is based on the frequency of posts, it is possible that the blog may appear to set the media's agenda without this being an accurate picture.

Future studies may benefit from a more detailing coding scheme that makes distinctions in content coding to take account of how a blog first hears about an issue. Using weighted measures, more value could be placed on the source that introduces information as opposed to a source that is tapped for additional interpretation to a given issue. By making such evaluations, distinctions can be made about the degree of agenda setting capabilities that sources exert based on how they are referenced in the specific blog post.

This dissertation's results can benefit from more extended replication across a diverse body of issues. Because time series analysis is only accurate with a data set in excess of 50 time points, two of the three issues could not be analyzed in isolation. This scenario led to the pooling of all issue points, with care taken not to lag one issue on another. This pooling of data was done in the attempt to reduce error. Only one issue, the

Iraq issue, yielded enough time points to achieve accurate results. The similarity in findings between the Iraq issue results and the pooled issue results could also have been due to the fact that the Iraq issue comprised the bulk of the time points in the pooled issue scenario. Care must be taken in interpreting the pooled issue results. Overall, more replication at the issue level across more extended time periods can be beneficial to bolster this study's findings.

A surprising finding was the influence of the moderate blog network on media agendas. Since little academic work has been done on the moderate blog network, these findings are difficult to interpret. It is important for greater analysis to be done on the influence of the moderate blog on media agendas. Since moderate blog networks approximate media blog networks in their somewhat neutral stance on many issues, it is conceivable that influence in both directions (blog-to-media and media-to-blog) is a tenable assumption.

At the attribute level, this study's methodology stopped short of causation. This study's findings point to strong attribute agenda correlations between blog networks and media, with the exception of the right-leaning blog network. The strong attribute agenda correlations between blog networks and media networks, and amongst the blogs that comprise each network, seem to suggest that agenda setting and social influence are complementary theories. Time series analysis can also provide meaningful statistical tests of influence at the attribute agenda setting level to untangle the agenda setting dynamics between blogs and media, and among blogs within the political blogosphere.

This study could have benefited from selecting issues from a longer time frame. The difficulty in locating issues that are strongly discussed across all blog ideological spheres was evidenced in this study; though a stringent methodology was adopted (selecting issues that were discussed in most of the channels and with the greatest

frequency), the conservative and the moderate blogosphere were still spare in their commentary on these issues. It is possible that future studies can pursue this study's methodology over a longer time frame, or through different time frames.

This study was also selected issues based on their frequency of discussion, using the major news events as determined by mass media and trend searches through the blogosphere. It is possible that adopting such a methodology could have bypassed other issues that were made newsworthy in the different blog ideological networks. For example, during this study's approximate two-month time frame, many of the right-leaning blogs were discussing Democratic fundraiser Norman Hsu, a donor for the Hillary Clinton's presidential campaign, who was captured in Colorado in September 7, 2007 for felony theft convictions. Right-leaning bloggers dedicated many blog posts to his fundraising fraud schemes; however, this issue failed to gain traction among left-leaning blogs, moderate blogs, or in the traditional media articles and blog posts. In other words, it is possible that the unified issue agenda of the right-leaning blogosphere failed to show such tight connections because of the choice of issues. In such respects, issues such as Norman Hsu highlight the significant power of social influence in setting both the issue and issue attribute agenda of partisan blog networks.

This study could have benefited from a larger sample size of blogs within primarily the partisan blog spectrums. Emphasis was placed on elite bloggers and quantitative methods were utilized to select the post popular bloggers in the current US political blogospere; however, there were some elite bloggers that were not included in this sample. Regarding the left-leaning spectrum, blogs that were left out include *Eschaton,* a left-leaning blog ruun by Duncan Hinds, *MyDD.com,* a group-authored, activist blog, and *AmericaBlog,* a group-authored blog. Regarding the right-leaning spectrum, blogs that were left out include *Redstate.org*, a group-authored blog, *Patterico*

Pontifications, a blog run by Patrick Frey, Deputy District Attorney in Los Angeles, and Hugh Hewitt'a blog at Townhall.com.

It is felt that this study makes a strong contribution to the political communication field. Through assessing the relevancy of agenda setting and the two-step flow, in tandem with the interdisciplinary focus of social network analysis, this study provides three layers of analysis (hyperlink, first-level agenda setting, and second-level agenda setting) to explore the relationship between blogs and mass media and among blog networks of different ideological positions.

This study found continued support for agenda setting; yet, this study also revealed the significance of social influence among blogs of shared political perspectives. These findings point to shared influence between blogs and media, evidenced by their mutual agenda setting impact on each other's agenda. Though existing mass communication theory remains tenable in the networked political blogosphere, it is evident that social networks have resurrected the significance of the two-step flow in influencing agendas, both from an informational standpoint and from the level of issue interpretation.

This study also highlighted the significance of social network analysis to an understanding of how networked communities on the World Wide Web engage in political activism. Many of the results in this study revealed the significance of homophily as it related to partisan identification, and the impact of partisan political affiliation on a blog's social network or network neighborhood. Social network analysis, an interdisciplinary theory, can aid in explaining how information diffuses within a bounded network. Many of the results in this study pointed to the significance of a blog's social ties. The strong agenda correlations, particularly in the left-leaning blogosphere,

provide substantial evidence of the significance of a blog's social network to the blog's issue agenda and its interpretation of the said issue.

It is felt that this methodology can also help to further explicate the nature of ties on the World Wide Web, providing greater information on how networks cohere both within groups, and in smaller aggregate such as dyads, triads, and cliques. Using network visualizations can also give tangible representation to the statistical methods that test the nature of relationships. Concepts such as centrality can be used to explain the contribution of each node within a network, which can help explain how information diffuses within political communities. As such, it is felt that the using social network analysis can enrich the field of mass communication, and more importantly, contribute innovative scholarship to the emerging phenomenon of networked politics in the blogosphere.

Appendix A

Table 1: Example of a One-Mode Network

	Chooser			
Choice	A	B	C	D
A	1	0	0	1
B	1	1	1	0
C	0	0	0	1
D	1	0	1	0

Table 2: Example of a Two-Mode Network

	Events			
Actor	1	2	3	4
A	X			X
B	X	X	x	
C				X
D	X		x	

Table 3: Post Totals for the Larry Craig Issue Across All Blog Networks and Traditional Media

Date	Left-leaning Blogs							Right-leaning Blogs							Moderate Blogs							Traditional Media			
	C&L	DK	HP	FDL	TP	TPM	T*	CQ	HA	Insta	LGF	MM	CQ	T	VDG	DD	CS	MV	DK	GTL	T	NYT	WaPo	NYTBl	WaPoBl
8/27/07	2	3	1	2	2	11	21	1	2	1	0	0	1	5	0	2	0	2	0	0	4	0	1	1	0
8/28/07	4	3	8	5	7	8	35	1	2	4	0	1	0	8	0	2	0	1	1	1	5	1	0	4	6
8/29/07	8	2	13	1	3	13	40	1	1	2	0	1	0	5	0	3	1	1	1	1	7	2	3	4	6
8/30/07	4	4	9	1	4	8	30	1	3	2	0	0	2	8	0	1	2	3	0	1	7	2	5	2	0
8/31/07	1	5	5	1	1	4	17	1	2	2	0	1	1	7	0	3	1	4	0	0	8	3	2	2	0
9/1/07	2	2	3	2	1	3	13	0	1	2	0	1	2	6	0	1	4	4	0	2	11	1	3	2	1
9/2/07	0	0	0	1	0	2	3	0	0	0	0	0	1	1	0	1	0	4	0	0	5	6	3	0	0
9/3/07	0	0	3	1	0	0	4	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	3	0	0
9/4/07	1	1	4	3	1	5	15	0	2	0	0	1	1	4	0	3	0	6	1	0	10	0	0	1	2
9/5/07	4	4	3	3	0	9	23	1	0	1	0	1	1	4	0	5	0	2	1	1	9	1	3	2	3
9/6/07	0	2	1	0	0	3	6	0	1	0	0	0	0	1	0	3	0	1	0	0	4	4	3	0	0
9/7/07	1	0	2	0	0	3	6	0	0	0	0	0	0	0	0	1	0	0	1	0	2	0	0	0	3
Totals*	27	26	48	20	9	69	207	6	14	14	0	6	9	49	0	25	8	28	5	7	73	20	26	18	21

T* represents totals across all blogs on a given day, within partisan spectrum
Totals* represents the total postings in an individual blog through the time period of the issue

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Table 4: Post Totals for the Gonzales Issue Across All Blog Networks and Traditional Media

Date	Blue Blogs							Red Blogs							Red Blogs							Traditional Media			
	C&L	DK	HP	FDL	TP	TPM	T*	CQ	HA	Insta	LGF	MM	CQ	T	VDG	DD	CS	MV	DK	GTL	T	NYT	WaPo	NYTBl	WaPoBl
7/24/2007	2	6	1	9	5	6	29	0	0	0	0	0	1	1	0	0	1	0	0	1	2	0	1	0	1
7/25/2007	4	5	0	2	4	7	22	3	0	0	0	0	2	5	0	3	0	1	2	0	6	1	4	1	2
7/26/2007	4	2	2	3	3	4	18	1	0	0	0	0	1	2	1	0	0	2	0	0	3	2	1	1	3
7/27/2007	4	1	0	2	1	1	9	1	0	2	0	0	0	3	0	0	0	1	0	2	3	3	2	0	3
7/28/2007	0	1	0	1	0	1	3	0	0	2	0	0	0	2	0	0	0	0	0	0	0	2	2	0	0
7/29/2007	2	4	1	1	1	1	10	0	0	0	0	0	2	3	0	0	0	1	0	0	1	1	2	1	1
7/30/2007	2	3	2	1	4	4	16	0	0	0	0	0	2	2	1	0	1	0	0	1	3	0	1	0	1
7/31/2007	2	0	0	2	5	1	10	1	0	0	0	0	1	2	0	0	1	0	0	1	2	0	2	2	2
8/1/2007	2	0	0	0	0	1	3	0	0	0	0	0	0	0	1	0	1	1	0	1	4	0	3	0	0
8/2/2007	1	1	1	0	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	2	1	0
Totals*	23	23	7	21	23	26	123	7	0	4	0	0	9	20	3	3	4	6	2	6	24	10	20	6	13

T* represents totals across all blogs on a given day, within partisan spectrum
Totals* represents the total postings in an individual blog through the time period of the issue

Table 5: Post Totals for the Iraq Issue Across All Blog Networks and Traditional Media

Date	Blue Blogs							Red Blogs							Moderate Blogs							Traditional Media			
	C&L	DK	HP	FDL	TP	TPM	T*	CQ	HA	Insta	LGF	MM	CQ	T	VDG	DD	CS	MV	DK	GTL	T	NYT	WaPo	NYTBl	WaPoBl
8/15/2007	2	1	0	0	1	1	5	1	0	2	0	1	0	4	0	1	1	1	1	0	4	0	0	0	0
8/16/2007	3	2	0	1	4	1	11	0	1	1	0	0	0	2	1	0	0	2	0	0	3	0	3	0	2
8/17/2007	0	1	0	1	1	0	3	1	0	2	0	0	0	3	0	1	0	1	0	0	2	0	0	0	1
8/18/2007	0	1	1	0	0	0	2	1	0	0	0	0	0	1	1	0	0	0	0	0	1	2	1	0	0
8/19/2007	0	1	1	0	0	0	2	1	0	0	0	0	0	1	2	0	0	1	0	0	3	3	0	0	0
8/20/2007	0	1	1	0	2	2	6	2	1	0	0	0	0	3	0	0	0	0	0	0	0	0	0	0	0
8/21/2007	0	2	3	0	0	0	5	0	0	1	0	0	0	1	0	1	0	2	0	0	3	2	1	1	0
8/22/2007	0	1	2	1	0	0	4	1	1	0	0	0	0	2	0	0	0	1	0	1	2	0	1	0	1
8/23/2007	1	3	0	0	1	0	5	0	1	0	0	0	0	1	0	0	0	1	0	0	1	0	2	1	0
8/24/2007	2	0	2	0	2	0	6	0	0	0	0	0	1	1	0	0	0	1	0	0	1	0	1	0	3
8/25/2007	1	2	1	0	0	0	4	1	0	1	0	0	0	2	0	0	0	0	0	0	0	1	1	0	0
8/26/2007	2	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	2	0	0
8/27/2007	0	0	1	0	1	0	2	0	0	2	0	0	0	2	0	0	0	0	0	0	0	1	0	0	0
8/28/2007	1	0	0	0	1	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	1	3	0
8/29/2007	1	0	0	0	0	0	1	0	1	3	0	1	0	5	0	0	0	0	0	0	0	0	3	0	0
8/30/2007	0	0	0	0	5	1	6	1	0	0	0	0	0	1	1	0	0	1	0	0	2	2	3	1	1
8/31/2007	2	1	0	0	2	0	5	1	2	0	0	0	0	3	2	0	0	2	0	0	4	3	5	0	0
9/1/2007	0	2	2	1	0	1	6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	2	0	0
9/2/2007	0	0	0	0	2	2	4	0	1	0	0	0	0	1	0	0	0	1	0	0	1	4	1	0	0
9/3/2007	0	0	1	0	0	0	1	0	0	0	0	0	1	1	0	1	0	2	0	0	3	2	0	0	0
9/4/2007	4	1	1	1	3	2	12	1	2	1	0	2	0	6	0	2	0	1	0	0	3	2	4	0	1
9/5/2007	1	2	2	4	0	0	9	0	0	0	0	0	0	0	0	1	0	0	0	0	1	4	3	0	2
9/6/2007	4	2	4	1	4	1	16	1	0	2	0	0	0	3	0	0	0	2	0	0	2	5	4	0	1
9/7/2007	2	1	3	2	3	3	14	1	3	1	0	0	0	5	2	1	3	4	0	0	10	3	1	0	2
9/8/2007	0	3	1	0	2	3	9	0	0	1	0	0	0	1	0	0	0	0	0	0	0	3	0	0	0
9/9/2007	3	2	4	2	5	5	21	1	0	1	2	0	2	6	1	1	0	0	0	0	2	4	7	0	2
9/10/2007	10	7	4	10	9	15	55	3	7	9	4	4	5	32	2	7	3	10	0	1	23	5	10	5	7
9/11/2007	7	7	14	6	7	11	52	3	4	5	2	0	3	17	4	6	2	3	0	0	15	9	16	4	5
9/12/2007	7	5	12	7	3	4	38	1	5	2	2	0	1	11	2	2	1	8	0	1	14	5	10	4	5
9/13/2007	4	2	12	1	6	5	30	1	5	4	0	2	2	14	0	3	0	4	0	1	8	5	13	2	6
9/14/2007	2	1	11	2	2	1	19	3	3	0	0	2	1	9	1	1	3	1	0	1	7	9	6	5	5
9/15/2007	1	1	0	4	0	0	6	0	1	0	1	0	0	2	0	0	0	0	0	0	0	6	1	2	0
9/16/2007	5	1	3	0	2	0	11	0	1	0	0	0	0	1	1	0	0	1	0	0	2	6	5	0	0
9/17/2007	2	1	1	4	0	2	10	0	2	0	0	1	1	4	4	1	0	0	0	0	5	0	4	4	3
9/18/2007	4	4	2	2	4	4	20	0	2	0	1	0	1	4	0	0	0	0	0	0	0	2	0	3	1
9/19/2007	0	1	1	3	0	0	5	0	1	0	0	0	1	2	0	1	0	0	0	0	1	3	2	1	2
9/20/2007	2	2	11	4	3	5	27	0	4	0	2	1	2	9	0	1	0	1	0	0	2	1	2	2	9
9/21/2007	1	0	1	2	5	3	12	0	0	0	0	0	1	1	3	1	0	0	0	0	4	4	1	0	2
9/22/2007	0	0	1	0	0	2	3	0	0	0	0	0	0	0	2	1	0	0	0	0	3	1	1	1	0

Date																								
9/23/2007	0	1	1	1	0	0	3	2	1	1	0	0	2	6	1	1	0	1	0	0	3	2	1	1	0
9/24/2007	1	1	5	1	0	1		0	0	0	0	0	0		1	0	0	0	0	0		1	2	0	1
							9							0							1				
Totals*	75	63	109	61	80	75	463	27	49	39	14	14	24	167	31	34	13	52	1	5	136	106	120	40	62

T* represents totals across all blogs on a given day, within partisan spectrum
Totals* represents the total postings in an individual blog through the time period of the issue

Table 6: Link Totals for the Larry Craig Issue Across All Blog Networks and Traditional Media

Date	Blue Blogs							Red Blogs							Moderate Blogs							Traditional Media	
	C&L	DK	HP	FDL	TP	TPM	T*	CQ	HA	Insta	LGF	MM	CQ	T	VDG	DD	CS	MV	DK	GTL	T	NYTBl	WaPoBl
8/27/07	6	8	2	2	6	9	33	3	10	3	0	0	1	17	0	14	0	18	0	0	32	3	0
8/28/07	7	14	13	29	14	7	84	4	10	15	0	5	0	34	0	2	0	6	3	4	15	16	14
8/29/07	11	15	8	3	7	20	64	2	0	3	0	2	0	7	0	6	3	1	2	1	13	17	11
8/30/07	6	11	13	4	11	10	55	4	12	2	0	0	3	21	0	3	1	10	0	0	14	3	0
8/31/07	0	15	1	3	2	3	24	2	4	2	0	9	0	17	0	7	1	4	0	0	12	4	0
9/1/07	0	2	1	4	0	7	14	0	3	2	0	5	2	12	0	7	6	10	0	12	35	5	3
9/2/07	0	0	0	1	0	7	8	0	0	0	0	0	3	3	0	4	0	6	0	0	10	0	0
9/3/07	0	0	8	5	0	0	13	0	0	0	0	0	0	0	0	0	0	0	0	4	4	0	0
9/4/07	1	6	8	13	3	3	34	0	6	0	0	6	2	14	0	2	0	3	1	0	6	1	2
9/5/07	4	13	0	5	0	7	29	1	0	1	0	0	0	2	0	6	0	6	1	0	13	2	13
9/6/07	0	9	0	0	0	3	12	0	5	0	0	0	0	5	0	1	0	2	0	0	3	0	0
9/7/07	2	0	1	0	0	2		0	0	0	0	0	0		0	1	0	0	0			0	12
							5							0						0	1		
Totals*	37	93	55	69	43	78	375	16	50	28	0	27	11	132	0	53	11	66	7	21	158	51	55

T* represents totals across all blogs on a given day, within partisan spectrum
Totals* represents the total postings in an individual blog through the time period of the issue

Table 7:Link Totals for the Gonzales Issue Across All Blog Networks and Traditional Media

Date	Blue Blogs							Red Blogs							Red Blogs							Traditional Media	
	C&L	DK	HP	FDL	TP	TPM	T*	CQ	HA	Insta	LGF	MM	CQ	T	VDG	DD	CS	MV	DK	GTL	T	NYTBl	WaPoBl
7/24/2007	5	10	0	14	6	19	54	0	0	0	0	0	1	1	0	0	1	0	0	9	10	0	2
7/25/2007	3	12	0	13	10	7	45	4	0	0	0	0	3	7	0	1	0	2	7	0	10	4	7
7/26/2007	6	3	9	35	8	8	69	4	0	0	0	0	2	6	1	0	0	1	0	0	2	0	7
7/27/2007	5	2	0	11	1	1	20	3	0	3	0	0	0	6	0	0	0	2	0	14	16	0	19
7/28/2007	0	1	0	1	0	3	5	0	0	2	0	0	0	2	0	0	0	0	0	0	0	0	0
7/29/2007	2	9	0	1	2	2	16	5	0	0	0	0	3	8	0	0	0	2	0	0	2	0	0
7/30/2007	2	4	10	11	4	3	34	0	0	0	0	0	3	3	1	0	2	0	0	5	8	0	9
7/31/2007	5	0	0	6	8	1	20	4	0	0	0	0	1	5	0	0	1	0	0	4	5	2	2
8/1/2007	0	0	0	0	0	1	1	0	0	0	0	0	0	0	1	0	4	0	0	1	6	0	0
8/2/2007	3	0	0	0	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0
Totals*	31	41	19	92	39	45	267	20	0	5	0	0	13	38	3	1	8	7	7	33	59	7	46

T* represents totals across all blogs on a given day, within partisan spectrum
Totals* represents the total postings in an individual blog through the time period of the issue

Table 8: Link Totals for the Iraq Issue Across All Blog Networks and Traditional Media

Date	Blue Blogs							Red Blogs							Moderate Blogs							Traditional Media	
	C&L	DK	HP	FDL	TP	TPM	T*	CQ	HA	Insta	LGF	MM	CQ	T	VDG	DD	CS	MV	DK	GTL	T	NYTBl	WaPoBl
8/15/2007	2	1	0	0	4	1	8	1	0	7	0	10	0	18	0	1	1	1	2	0	5	0	0
8/16/2007	7	6	0	6	10	1	30	0	4	2	0	0	0	6	1	0	0	6	0	0	7	0	18
8/17/2007	0	12	0	4	3	0	19	1	0	3	0	0	0	4	0	2	0	10	0	0	12	0	2
8/18/2007	0	6	10	0	0	0	16	1	0	0	0	0	0	1	1	0	0	0	0	0	1	0	0
8/19/2007	0	3	6	0	0	0	9	3	0	0	0	0	0	3	2	0	0	2	0	0	4	0	0
8/20/2007	0	9	8	0	8	3	28	5	9	0	0	0	0	14	0	0	0	0	0	0	0	0	0
8/21/2007	0	6	0	0	0	0	6	0	0	2	0	0	0	2	0	1	0	3	0	0	4	2	0
8/22/2007	0	2	4	9	0	0	15	1	0	0	0	0	0	1	0	0	0	0	0	1	1	0	4
8/23/2007	4	10	0	0	4	0	18	0	6	0	0	0	0	6	0	0	0	2	0	0	2	0	0
8/24/2007	4	0	3	0	11	0	18	0	0	0	0	0	3	3	0	0	0	4	0	0	4	0	18
8/25/2007	2	12	0	0	0	0	14	1	0	2	0	0	0	3	0	0	0	0	0	0	0	0	0
8/26/2007	9	0	0	0	0	0	9	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8/27/2007	0	0	4	0	17	0	21	0	0	3	0	0	0	3	0	0	0	0	0	0	0	0	0
8/28/2007	3	0	0	0	4	0	7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	0
8/29/2007	1	0	0	0	0	0	1	0	2	3	0	8	0	13	0	0	0	0	0	0	0	0	0
8/30/2007	0	0	0	0	16	1	17	2	0	0	0	0	0	2	4	0	0	1	0	0	5	0	1
8/31/2007	5	2	0	0	14	0	21	1	6	0	0	0	0	7	4	0	0	3	0	0	7	0	0
9/1/2007	0	13	4	13	0	8	38	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9/2/2007	0	0	0	0	3	3	6	0	6	0	0	0	0	6	0	0	0	0	0	0	0	0	0
9/3/2007	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	1	0	8	0	0	9	0	0
9/4/2007	7	1	1	12	8	1	30	1	9	4	0	17	0	31	0	18	0	2	0	0	20	0	20
9/5/2007	1	11	4	28	0	0	44	0	0	0	0	0	0	0	0	1	0	0	0	0	1	0	34
9/6/2007	8	6	12	6	21	1	54	2	0	1	0	0	0	3	0	0	0	4	0	0	4	0	3
9/7/2007	7	2	3	16	8	3	39	1	21	2	0	0	0	24	4	1	6	7	0	0	18	0	10
9/8/2007	0	11	0	0	7	6	24	0	0	7	0	0	0	7	0	0	0	0	0	0	0	0	0
9/9/2007	4	7	14	2	13	4	44	2	0	1	0	0	7	10	5	0	0	0	0	0	5	0	0
9/10/2007	20	8	7	67	34	22	158	5	41	26	0	28	2	102	8	5	4	16	0	1	34	35	31
9/11/2007	28	18	37	15	23	12	133	4	16	6	0	0	5	31	6	8	9	3	0	0	26	17	28
9/12/2007	16	8	33	40	20	8	125	4	22	4	3	0	0	33	8	3	1	8	0	1	21	12	22
9/13/2007	6	3	31	4	25	8	77	3	17	4	0	17	2	43	0	4	0	35	0	1	40	6	15
9/14/2007	0	4	18	13	6	1	42	3	9	0	0	20	1	33	1	1	4	2	0	1	9	5	33
9/15/2007	3	5	0	16	0	0	24	0	1	0	1	0	0	2	0	0	0	0	0	0	0	6	0
9/16/2007	6	3	14	0	9	0	32	0	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0
9/17/2007	3	1	12	26	0	1	43	0	2	0	0	4	0	6	3	1	0	0	0	0	4	4	3
9/18/2007	8	8	4	22	18	4	64	0	8	0	2	0	1	11	0	0	0	0	0	0	0	3	7
9/19/2007	0	1	2	35	0	0	38	0	8	0	0	0	5	13	0	1	0	0	0	0	1	4	9
9/20/2007	1	9	25	8	16	6	65	0	6	0	3	5	0	14	0	1	0	1	0	0	2	7	18
9/21/2007	1	0	0	11	19	7	38	0	0	0	0	0	1	1	5	4	0	0	0	0	9	0	6

9/22/2007	0	0	0	0	0	3	**3**	0	0	0	0	0	0	0	4	2	0	0	0	0	**6**	0	0
9/23/2007	0	0	2	10	0	0	**12**	3	2	2	0	0	4	11	0	2	0	7	0	0	**9**	0	0
9/24/2007	2	1	4	4	0	2		0	0	0	0	0	0		1	0	0	0	0	0		0	3
							13							**0**							**1**		
Totals*	158	189	262	367	321	106	1403	44	196	79	9	109	32	469	57	57	25	125	2	5	271	105	285

T* represents totals across all blogs on a given day, within partisan spectrum
Totals* represents the total postings in an individual blog through the time period of the issue

Table 9: InterCoder Reliability Estimates for Content Analysis

Content	Gonzales	Craig	Iraq
Blog/Article Post Date (select date from date picker)	.98	.99	.97
Blog/Media Entity (select blog name)	.99	.99	.99
URL connected to issue (select 1 of the 3 issues)	.97	.98	.98
URL in content category (select tag for URL)	.90	.92	.95
Frames for Blog Post/Article (select all that apply)	.73	.82	.85

Table 10: Total Blog postings Across The Different Blog Networks

	SS	df	Mean Square	F	Sig
Between Groups	35407.444	2	17703.722	25.444	.000*
Within Groups	10437.000	15	695.800		
Total	45844.444	17			

*p<.05

Table 11: Total Hyperlinks Across the Different Blog Networks

	SS	df	Mean Square	F	Sig
Between Groups	245771.444	2	122885.722	15.469	.000
Within Groups	119157.667	15	7943.844		
Total	364929.111	17			

Table 12: Top Hyperlink Domains Across the Entire Network

URL Domain	Domain Frequency
washingtonpost.com	279
nytimes.com	240
tpmmuckraker.com*	100
cnn.com	91
news.yahoo.com	75
latimes.com	69
thinkprogress.org	67
article.nationalreview.com	62
whitehouse.gov	61
talkingpointsmemo.com	57
msnbc.msn.com	54
tpmelectioncentral.com	51
salon.com	50
youtube.com	48
idahostatesman.com	48
politico.com	46
abcnews.go.com	40
thehill.com	37
foxnews.com	35
pol.moveon.org	35
huffingtonpost.com	34
usatoday.com	32
crooksandliars.com	32
rollcall.com	31
mcclatchydc.com	30
washingtonmonthly.com	26
Speaker.gov	25
mediamatters.org	24
Dailykos.com	24
hotair.com	23

* bolded sites represent blogs

Table 13: Means and Standard Deviations for Linking Practices Across All Blog
Networks and Issues Time Periods

	Right-Leaning Blogs		Left-Leaning Blogs		Moderate Blogs	
	M	SD	M	SD	M	SD
Right-Leaning Blogs	24.33	19.2	4.17	2.79	8.3	8.12
Left-Leaning Blogs	2.5	1.87	90.83	44.25	12.17	10.21
Moderate Blogs	.67	.67	8.33	6.18	6.0	5.51

Table 14: Left-Leaning Blog Links to Blog Ideological Networks

	SS	df	Mean Square	F	Sig
Between Groups	33801.125	3	11267.042	22.485	.000
Within Groups	10021.833	20	501.092		
Total	43822.958	23			

Table 15: Right-Leaning Blog Links to Blog Ideological Networks

	SS	df	Mean Square	F	Sig
Between Groups	2084.833	3	694.944	5.150	.000
Within Groups	2699.000	20	134.950		
Total	4783.833	23			

Table 16: Moderate Blog Links to Blog Ideological Networks

	SS	df	Mean Square	F	Sig
Between Groups	156.833	3	52.278	.965	.428
Within Groups	1083.000	20	54.150		
Total	1239.833	23			

Table 17: Centrality Indicators of Blogs Across All Networks

Site	Degree	Betweeness	Affiliation
Captain's Quarters	73.684	8.94	R*
Central Sanity	26.316	0.181	M**
Crooks and Liars	42.105	0.295	L***
Daily Dish	36.842	0.357	M
Daily Kos	52.632	4.958	L
Donklephant	15.789	0	M
Fire Dog Lake	47.368	0.802	L
Gun Toting Liberal	15.789	0	M
Hot Air	47.684	3.829	R
Huffington Post	52.632	1.371	L
Instapundit	36.842	0.544	R
Little Green Footballs	15.789	0.263	R
Michelle Malkin	42.105	3.305	R
NY Times Blog	78.947	6.569	TM****
Powerline	26.316	0.084	R
Talking Points Memo	68.421	4.989	L
The Moderate Voice	84.211	12.817	M
The Van Der Galien Gazette	36.842	1.034	M
Think Progress	73.684	6.905	L
Washington Post Blog	63.158	3.577	TM

* R refers to right-leaning blogs
** M refers to moderate blogs
*** L refers to left-leaning blogs
**** TM refers to traditional media

Table 18: Popular Media Preferences Across Blog Ideological Spectrums

Site	Left Leaning Blogs							Right Leaning Blogs						Moderate Blogs				
	C&L	DK	HP	FDL	TP	TPM	CQ	HA	Insta	LGF	MM	CQ	VDG	DD	CS	MV	DK	GTL
washingtonpost.com	10	40	58	31	20	30	10	13	4	0	4	4	7	7	2	4	16	2
nytimes.com	9	22	41	21	8	25	5	16	2	0	3	5	3	8	1	1	13	6
news.yahoo.com	4	10	9	4	3	9	6	9	0	0	6	2	1	2	0	1	2	0
cnn.com	2	9	10	9	7	6	1	19	0	0	1	0	4	2	0	1	7	1
foxnews.com	4	2	5	5	1	4	0	10	1	0	1	1	0	0	0	0	1	0
thehill.com	1	1	3	2	0	8	3	8	0	0	1	0	2	0	1	1	3	1
salon.com	9	1	23	4	0	3	1	0	0	0	0	0	0	2	0	0	2	0
youtube.com	3	0	11	10	5	0	0	2	0	0	1	0	1	6	0	0	0	0
abcnews.go.com	1	0	2	1	0	9	1	13	1	0	2	0	0	3	0	1	2	0
msnbc.msn.com	2	5	7	5	0	6	1	7	0	0	0	0	1	2	0	2	2	1
latimes.com	5	3	5	7	3	6	1	5	1	0	1	0	1	2	1	0	2	0
article.nationalreview.com	2	1	3	0	0	12	2	10	13	0	4	5	1	4	0	0	0	1
washingtonpost.com	10	40	58	31	20	30	10	13	4	0	4	4	7	7	2	4	16	2

Table 19: Pearson's Correlations of Media Preferences Across Blog Ideological
            Spectrums

	Right-leaning	Moderate	Left-leaning	Media
Right-leaning				
Moderate	.585*			
Left-leaning	.766	.766*		
Media	.402	.883*	.839*	

* p<.05

Table 20: Top 20 Links for the Left-Leaning Blogosphere Issue by Issue

Rank	Craig	Gonzales	Iraq
1	idahostatesman.com (28)	washingtonpost.com (35)	washingtonpost.com (141)
2	tpmelectioncentral.com (20)	tpmmuckraker.com (35)	nytimes.com (94)
3	rollcall.com (13)	nytimes.com (25)	tpmmuckraker.com (51)
4	washingtonpost.com (13)	thinkprogress.org (11)	thinkprogress.org (40)
5	2008racetracker.com (13)	susiemadrak.com (9)	whitehouse.gov (36)
6	idahovaluesalliance.com (9)	talkingpointsmemo.com (8)	cnn.com (31)
7	cnn.com (9)	youtube.com (7)	latimes.com (27)
8	salon.com (9)	salon.com (7)	news.yahoo.com (26)
9	tpmmuckraker.com (8)	thenexthurrah.typepad.com (7)	tpmelectioncentral.com (25)
10	talkingpointsmemo.com (8)	news.yahoo.com (6)	salon.com (24)
11	mediamatters.org (7)	speaker.gov (6)	crooksandliars.com (22)
12	news.yahoo.com (7)	firedoglake.com (5)	talkingpointsmemo.com (21)
13	nytimes.com (7)	en.wikipedia.org (5)	pol.moveon.org (21)
14	talkleft.com (7)	balkin.blogspot.com (4)	huffingtonpost.com (19)
15	blogactive.com (6)	thehill.com (4)	msnbc.msn.com (18)
16	msnbc.msn.com (6)	digbysblog.blogspot.com (4)	atrios.blogspot.com (18)
17	politico.com (6)	feingold.senate.gov (4)	openleft.com (18)
18	youtube.com (6)	rawstory.com (4)	washingtonmonthly.com (17)
19	thinkprogress.org (5)	firedoglake.blogspot.com (3)	youtube.com (16)
20	foxnews.com (4)	dailykos.com (3)	article.nationalreview.com (16)

Table 21: Top 20 Links for the Moderate Blogosphere Issue by Issue

Rank	Craig	Gonzales	Iraq
1	idahostatesman.com (28)	washingtonpost.com (35)	washingtonpost.com (141)
2	tpmelectioncentral.com (20)	tpmmuckraker.com (35)	nytimes.com (94)
3	rollcall.com (13)	nytimes.com (25)	tpmmuckraker.com (51)
4	washingtonpost.com (13)	thinkprogress.org (11)	thinkprogress.org (40)
5	2008racetracker.com (13)	susiemadrak.com (9)	whitehouse.gov (36)
6	idahovaluesalliance.com (9)	talkingpointsmemo.com (8)	cnn.com (31)
7	cnn.com (9)	youtube.com (7)	latimes.com (27)
8	salon.com (9)	salon.com (7)	news.yahoo.com (26)
9	tpmmuckraker.com (8)	thenexthurrah.typepad.com (7)	tpmelectioncentral.com (25)
10	talkingpointsmemo.com (8)	news.yahoo.com (6)	salon.com (24)
11	mediamatters.org (7)	speaker.gov (6)	crooksandliars.com (22)
12	news.yahoo.com (7)	firedoglake.com (5)	talkingpointsmemo.com (21)
13	nytimes.com (7)	en.wikipedia.org (5)	pol.moveon.org (21)
14	talkleft.com (7)	balkin.blogspot.com (4)	huffingtonpost.com (19)
15	blogactive.com (6)	thehill.com (4)	msnbc.msn.com (18)
16	msnbc.msn.com (6)	digbysblog.blogspot.com (4)	atrios.blogspot.com (18)
17	politico.com (6)	feingold.senate.gov (4)	openleft.com (18)
18	youtube.com (6)	rawstory.com (4)	washingtonmonthly.com (17)
19	thinkprogress.org (5)	firedoglake.blogspot.com (3)	youtube.com (16)
20	foxnews.com (4)	dailykos.com (3)	article.nationalreview.com (16)

Table 22: Top 20 Links for the Right- Leaning Blogosphere Issue by Issue

Rank	Craig	Gonzales	Iraq
1	news.yahoo.com (8)	washingtonpost.com (8)	article.nationalreview.com (30)
2	hotair.com (7)	nytimes.com (3)	washingtonpost.com (25)
3	abcnews.go.com (7)	news.yahoo.com (3)	nytimes.com (24)
4	cnn.com (6)	justoneminute.typepad.com (2)	cnn.com (15)
5	idahostatesman.com (5)	breitbart.com (2)	hotair.com (14)
6	newsbusters.org (5)	thehill.com (2)	politico.com (14)
7	politico.com (5)	headingright.com (2)	news.yahoo.com (12)
8	foxnews.com (4)	judiciary.senate.gov (1)	abcnews.go.com (10)
9	nytimes.com (4)	rawstory.com (1)	foxnews.com (9)
10	washingtontimes.com (4)	qando.net (1)	thehill.com (9)
11	breitbart.com (4)	salon.com (1)	latimes.com (8)
12	rollcall.com (4)	rightwingnuthouse.com (1)	weeklystandard.com (8)
13	hughhewitt.townhall.com (4)	balkin.blogspot.com (1)	victorycaucus.com (7)
14	volokh.com (3)	memeorandum.com (1)	nypost.com (6)
15	msnbc.msn.com (3)	britannica.com (1)	headingright.com (6)
16	article.nationalreview.com (3)	whitehouse.gov (1)	gatheringofeagles.org (6)
17	classicalvalues.com (3)	cqpolitics.com (1)	confederateyankee.mu.nu (6)
18	ocregister.com (2)	cq.com (1)	gatewaypundit.blogspot.com (5)
19	plnewsforum.com (2)	article.nationalreview.com (1)	hotair.cachefly.net (5)
20	patterico.com (2)	reuters.com (1)	blackfive.net (5)

Table 23: Means and Standard Deviations of Links to the New York Times and the
Washington Post Across All Blog Networks and Issue Periods

	N	Mean	Standard Deviation	Standard Error From Mean
Washington Post	18	14.56	15.73	3.71
New York Times	18	10.5	10.82	2.55

Table 24: Independent-Samples T-Test Testing Differences in Links to the New York
Times and the Washington Post Across All Blog Networks and Issue
Periods

	F	Sig	T	DF	Sig
Equal Variances Assumed	1.7	.201	.901	34	p >.05

Table 25: Means and Standard Deviations of Links to Citizen vs Traditional Media for
All Blog Networks Across All Issue Periods

	N	Mean	Standard Deviation	Standard Error From Mean
Citizen Media	18	58.6	52.73	12.42
Traditional Media	18	92.5	80.8	19.04

Table 26: Independent-Samples T-Test Testing Differences in Links to Citizen Media vs
Traditional Media Across All Blog Networks and Issue Periods

	F	Sig	T	DF	Sig
Equal Variances Assumed	4.415	.04	-1.49	34	p>.05

Table 27: Blog-to-Blog and Blog-to-Media Intra-Class Correlations on the Iraq issue

	Red	Blue	Moderate	Media	MediaBl
Red		.165	.638*	.381*	.140
Blue			.308*	.474*	.308*
Moderate				.365*	.565*
Media					.272*
MediaBl					

*p<.05

Table 28: One-Day Lag Significance Values for Media Setting its Own Agenda

	Red	Blue	Moderate	Media	MediaBl
Red	3.56*		.	.	
Blue		6.66*	.		
Moderate	.	.	3.38*		.
Media				6.39*	
MediaBl	.		.		3.69*

* p<.05

Table 29: Two-Day Lag Significance Values for Media Setting its Own Agenda

	Red	Blue	Moderate	Media	MediaBl
Red	0.27		.	.	
Blue		-0.37	.		
Moderate	.	.	0.29		.
Media				1.44	
MediaBl	.		.		0.76

All correlations for the two-day lag tests are insignificant

Table 30: Pooled Issue Data Testing Media to Blog Agenda Setting

Granger Test	Media	Result
Left-leaning Blog does not Granger cause	Right-leaning blog	2.83*
	Moderate blog	1.19
	Media	2.62*
	Media blog	1.98
Right leaning blog does not Granger cause	Left leaning blog	0.53
	Moderate blog	-0.20
	Media	3.18*
	Media blog	1.11
Moderate blog does not Granger cause	Left leaning blog	1.97
	Right leaning blog	2.32*
	Media	5.02*
	Media blog	2.85*
Media does not Granger cause	Left leaning blog	1.29
	Right leaning blog	2.28*
	Moderate blog	2.18*
	Media blog	3.06*
Media blog does not Granger cause	Left leaning blog	0.47
	Right leaning blog	0.58
	Moderate blog	0.17
	Media	3.04*

* $p < .05$

Table 31: Testing Media to Blog Agenda Setting on Iraq Issue

Granger Test	Media	Result
Left-leaning Blog does not Granger cause	Right-leaning blog	4.12*
	Moderate blog	2.13*
	Media	3.75*
	Media blog	3.36*
Right leaning blog does not Granger cause	Left leaning blog	0.10
	Moderate blog	0.36
	Media	2.38*
	Media blog	1.34
Moderate blog does not Granger cause	Left leaning blog	0.74
	Right leaning blog	2.24*
	Media	4.22*
	Media blog	2.24*
Media does not Granger cause	Left leaning blog	0.83
	Right leaning blog	3.15*
	Moderate blog	2.05*
	Media blog	3.64*
Media blog does not Granger cause	Left leaning blog	-1.18
	Right leaning blog	0.22
	Moderate blog	-0.05
	Media	1.76

*p<.05

Table 32: Frames and Frequency of Occurrance Across Media Agendas for the Gonzales Issue

Frame	Left	Right	Moderate	Media	Media Blog
constitutional crisis - test of the constitution	1	14	4	2	3
Critique of media coverage of the Gonzales incident	6	9	0	0	1
Democratic political motivation (fishing expedition)	11	2	1	5	3
Gonzales as an unethical/lacking credibility as an AG	8	41	10	19	12
Gonzales as innocent	10	0	1	0	3
Gonzales following White House leadership	0	33	4	10	10
Gonzales gives flawed testimony, tantamount to perjury	2	74	12	20	14
Gonzales needs to be impeached	0	30	3	1	3
Gonzales needs to be removed/resign	4	13	6	6	6
Gonzales NSA testimony is carefully worded but truthful	0	7	0	9	5
Political crisis for the Bush administration	3	17	7	6	6

Table 33: Frames and Frequency of Occurrence Across Media Agendas for the Craig
Issue

Frame	Left	Right	Moderate	Media	Media Blog
comparing Craig's plight to prior scandals	1	0	0	6	1
Political reasons for outing Craig	30	85	19	30	26
Craig hypocritical and arrogant	14	48	21	9	9
Craig mishandles situation/lies	18	70	19	12	19
criticism of media coverage	1	14	6	2	0
culture of police entrapment	9	6	9	4	3
homophobia in society	1	25	15	9	3
humor at Craig's expense	13	60	13	4	7
hypocrisy of Republican party's stance on gay rights	11	81	16	10	10
improves Democrats political prospects	5	14	1	0	1
scandal scarred GOP/another example of GOP failure	6	35	10	11	9
sincere compassion for Craig	2	15	15	5	2

Table 34: Frames and Frequency of Occurrence Across Media Agendas for the Iraq Issue

Frame	Left	Right	Moderate	Media	Media Blog
Iraq - falsely aligned with Al Qaeda	0	5	0	1	0
Iraq - increased violence (including deaths, terrorism counts, soldier deaths)	5	96	6	60	10
Iraq - internal political strife among different ethnic factions	7	44	16	66	14
Iraq - Iraqi security forces cannot assume control	3	6	6	22	2
Iraq - lack of support from Iraqis for continued US presence	4	15	1	9	1
Iraq - military success dependent on (absent) Iraqi political settlement	1	7	5	5	1
Iraq - militias being bribed with $$ by US soliders	0	2	0	0	0
Iraq - mission unattainable/lack of observable political progress	0	10	7	13	8
Iraq - on the path to peace	3	0	0	1	0
Iraq - US presence worsened lives for Iraqis	0	17	1	7	7
MoveOn - votes by Democrats for resolution a disappoinment	1	20	0	0	0
MoveOn - and its supporters - unpatriotic/ not supportive of troops	10	2	2	0	1
MoveOn - bait and switch politics, deliberate distraction from War in Iraq	1	45	4	5	5
MoveOn - content as accurate depiction	0	4	1	0	0
MoveOn - content as inaccurate depiction/smear tactic against Petraeus	19	3	12	1	1
MoveOn - critique of the NYTimes	11	0	3	1	0
MoveOn - is entitled to freedom of speech	0	24	0	2	3
MoveOn - political isolation/pressure to distance	13	3	5	2	8
MoveOn - politicians trying to gain political advantage through condemning ad	8	21	4	9	23
MoveOn - uneasy alliance with Democratic party	17	11	3	8	12
Petraeus Report - critique of media coverage	5	54	3	5	0
Petraeus Report - democratic protest orquestrated for months before (framed)	32	2	14	1	1
Petraeus Report - Democrats failing at changing course of the war	21	43	7	34	13
Petraeus Report - evidence in question, ie success in Anbar	3	87	13	33	7
Petraeus Report - Petraeus - has honor and integrity	19	4	9	8	1
Petraeus Report - Petraeus - partisan / credibility issues	1	76	10	4	2
Petraeus Report - plunging public support for Petraeus report/ War in Iraq	20	91	21	36	19
Petraeus Report - public support strong for Petraeus	10	1	2	2	0
Petraeus Report : furthering political agendas	6	5	8	23	16
Petraeus Report - Surge - draw down as handout to anti-war crowd (token gesture)	7	5	0	4	1
Petraeus Report - Surge - drawdown sham	0	28	2	11	5
Petraeus Report - Surge - drawn down as operational necessity	4	18	5	9	3
Petraeus Report - Surge - is a failure/not produced any success (inflated claims)	1	82	18	21	15
Petraeus Report - Surge - needs more time to be successful	0	0	0	7	2
Petraeus Report - Surge - providing signs of progress	41	10	23	14	1
Petraeus Report - Surge - sacrifice of innocent solider lives	0	3	0	0	0
Petraeus Report - Surge - success metrics keep	0	1	3	22	5

changing/hard to define

Petraeus Report - Waning Republican support for staying the course	5	4	4	11	5
Petraeus Report - White House - pressure/influence on report (dog and pony show)	10	202	38	78	26
Petraeus Report - White House - to rally Republican support	3	23	5	32	10

Table 35: Pearson's Correlations Across Attribute Agendas for the Gonzales Issue

	Right-leaning	Left-leaning	Moderate	Media	Media Blog
Right-leaning					
Left-leaning	-.353				
Moderate	-.136	.833*			
Media	-.098	.789*	.792*		
Media Blog	-.186	.853*	.852*	.951*	

*p<.05

Table 36: Pearson's Correlations Across Attribute Agendas for the Craig Issue

	Right-leaning	Left-leaning	Moderate	Media	Media Blog
Right-leaning					
Left-leaning	.820*				
Moderate	.628*	.738*			
Media	.797*	.686*	.582*		
Media Blog	.933*	.855*	.673*	.896*	

*p<.05

Table 37: Pearson's Correlations Across Attribute Agendas for the Petraeus Report SubFrame of the Iraq Issue

	Right-leaning	Left-leaning	Moderate	Media	Media Blog
Right-leaning					
Left-leaning	.206				
Moderate	.556*	.668*			
Media	.303	.680*	.687*		
Media Blog	.335	.708*	.679*	.889*	

*p<.05

Table 38: Pearson's Correlations Across Attribute Agendas for the MoveOn 'Betray Us'
        Ad SubFrame of the Iraq Issue

	Right-leaning	Left-leaning	Moderate	Media	Media Blog
Right-leaning					
Left-leaning	-.571*				
Moderate	.716*	-.216			
Media	.207	.433	.093		
Media Blog	.213	.249	.094	.906*	

*p<.05

Table 39: Right-Leaning Links from Left-Leaning Blogs by Issue

Gonzales	Craig	Iraq
balkin.blogspot.com (1)	hughhewitt.townhall.com (2)	hughhewitt.townhall.com (2)
captainsquartersblog.com (1)*	jonswift.blogspot.com (1)	**michellemalkin.com (1)**
headingright.com (1)	**captainsquartersblog.com (2)**	wwwwakeupamericans-spree.blogspot.com (1)
	volokh.com (1)	ace.mu.nu (1)
	michellemalkin.com (1)	
	redstate.com (1)	

* bolded sites represent links to elite bloggers in this sample

Table 40: Left-leaning Links from Right-Leaning Blogs by Issue

Gonzales	Craig	Iraq
rightwingnuthouse.com (1)	**talkingpointsmemo.com (2)***	tpmelectioncentral.com (2)
		huffingtonpost.com (2)
		dailykos.com (1)
		rightwingnuthouse.com (1)

* bolded sites represent links to elite bloggers in this sample

Table 41: Traditional Media Blogs Top Media Domains

Media	Frequency
nytimes.com	50
latimes.com	26
whitehouse.gov	20
washingtonpost.com	14
cnn.com	12
idahostatesman.com	11
mcclatchydc.com	11
pol.moveon.org	11
usatoday.com	11
senate.gov	10
talkingpointsmemo.com	9
youtube.com	9
news.yahoo.com	7
freedomswatch.org	6
huffingtonpost.com	6
msnbc.msn.com	6
cbsnews.com	5
salon.com	5
slate.com	5
time.com	5

Appendix B

Figure 1: Agenda Setting Model
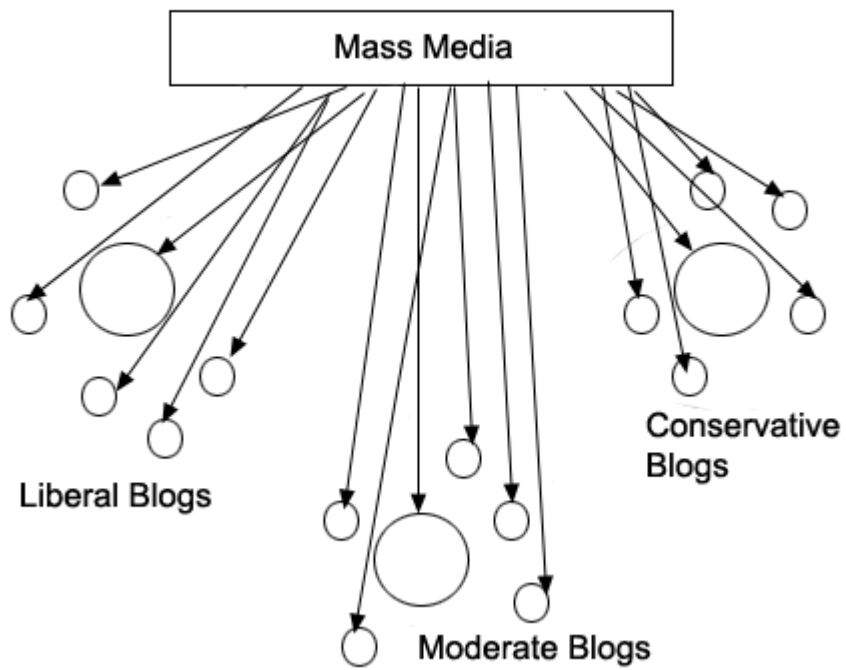
Figure 2: Two-Step Flow Model
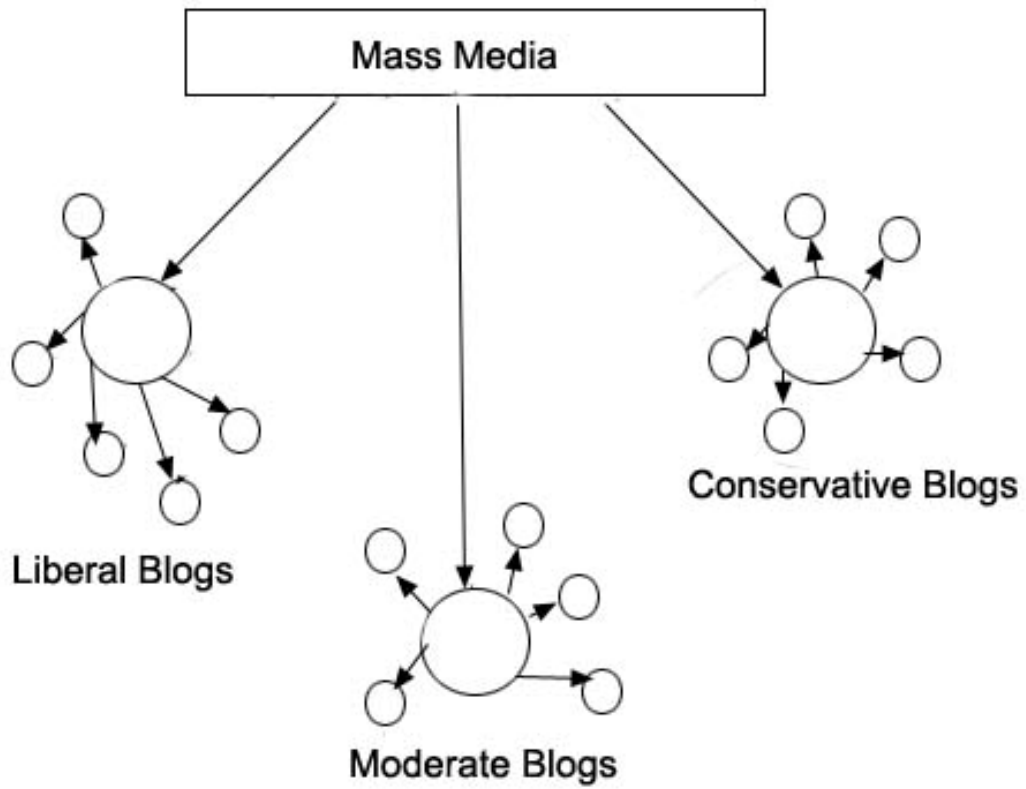
Figure 3: Information Flow in a Networked Environment
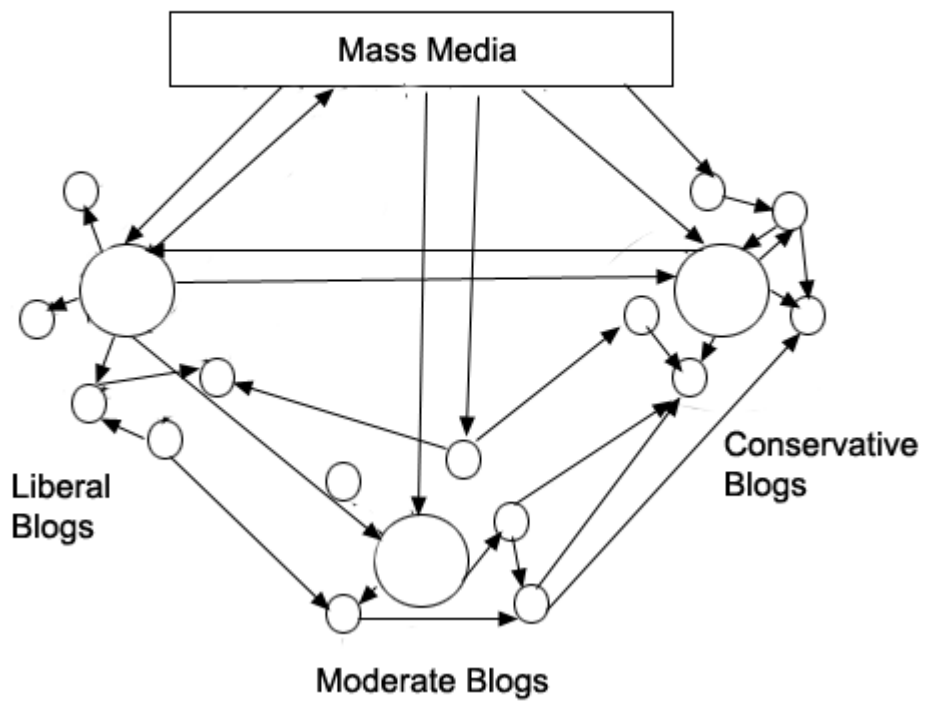
Figure 4: Example of a Network
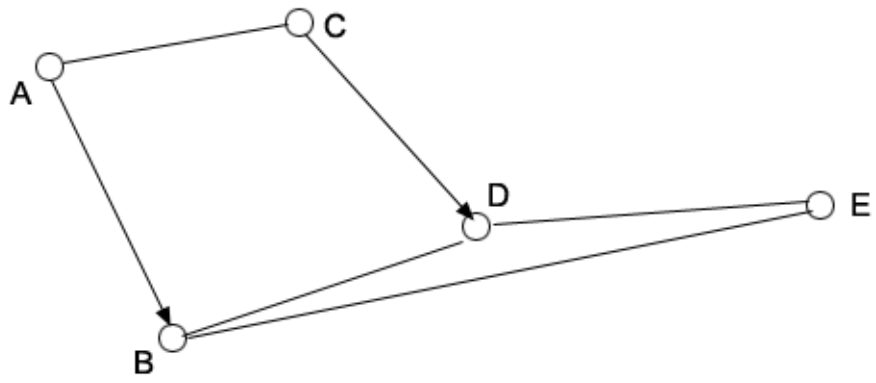
Figure 5: Star Network and Circle Network
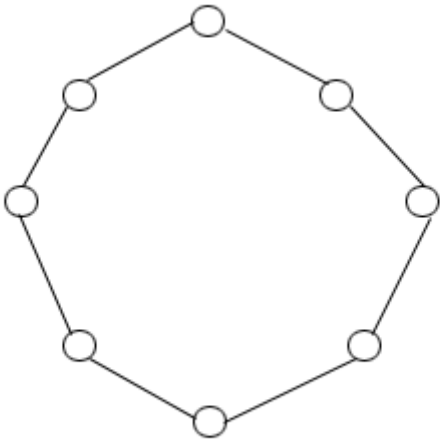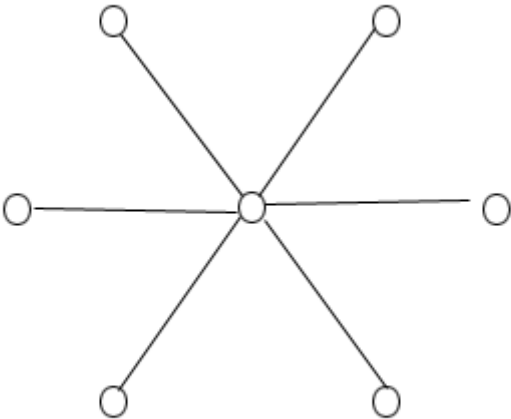
Figure 6: Power Law among Blogs.

Source: Shirky, C. Power Laws, Weblogs, and Inequality. Retrieved November 17, 2007,

from http://www.shirky.com/writings/powerlaw_weblog.html
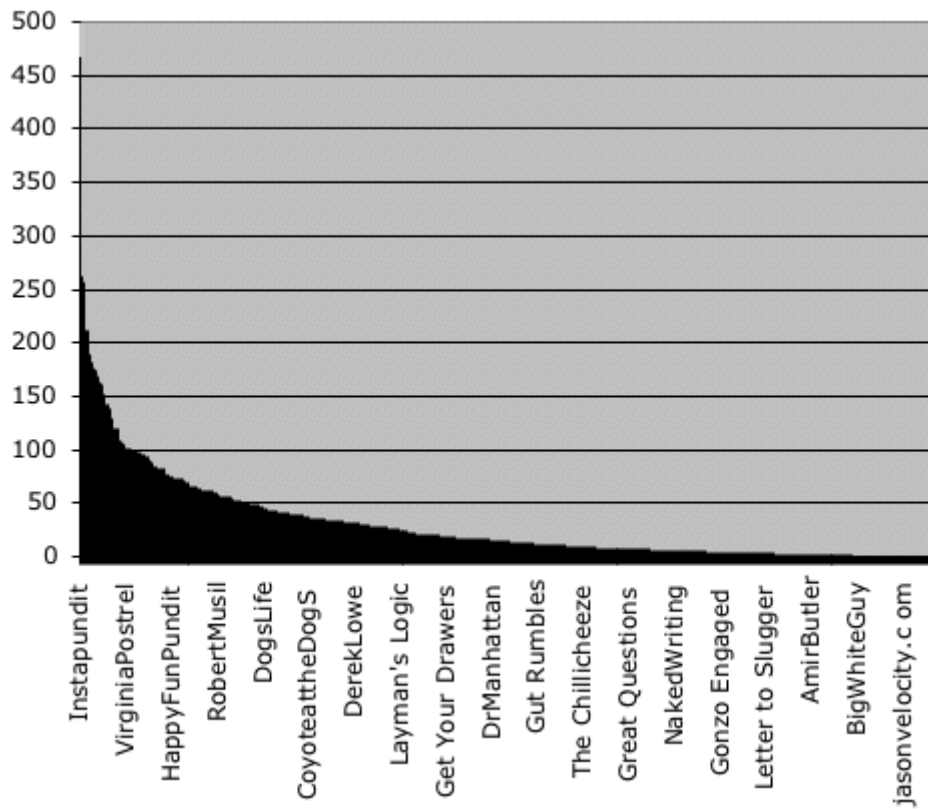
Figure 7: Trend Graph on Blog Postings for the Iraq Issue on Sub Frame Petraeus

Figure 8: Trend Graph on Blog Postings for the Iraq Issue on Sub Frame MoveOn

Figure 9: Trend Graph on Blog Postings for the Gonzales Issue

Figure 10: Trend Graph on Blog Postings for the Craig Issue

Trend Results

Generated by BlogPulse Copyright 2006 Nielsen BuzzMetrics.
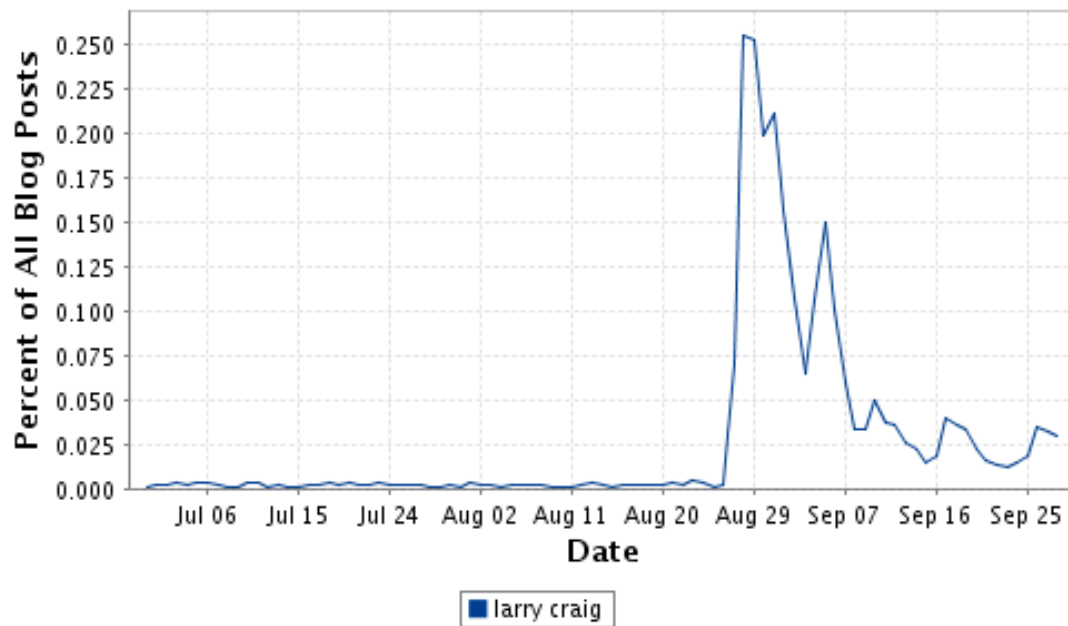
Figure 11: Content Analysis Form for Coding Blog Posts and Articles

Figure 12: Power Law Trend Across Entire Network and All Issue Periods
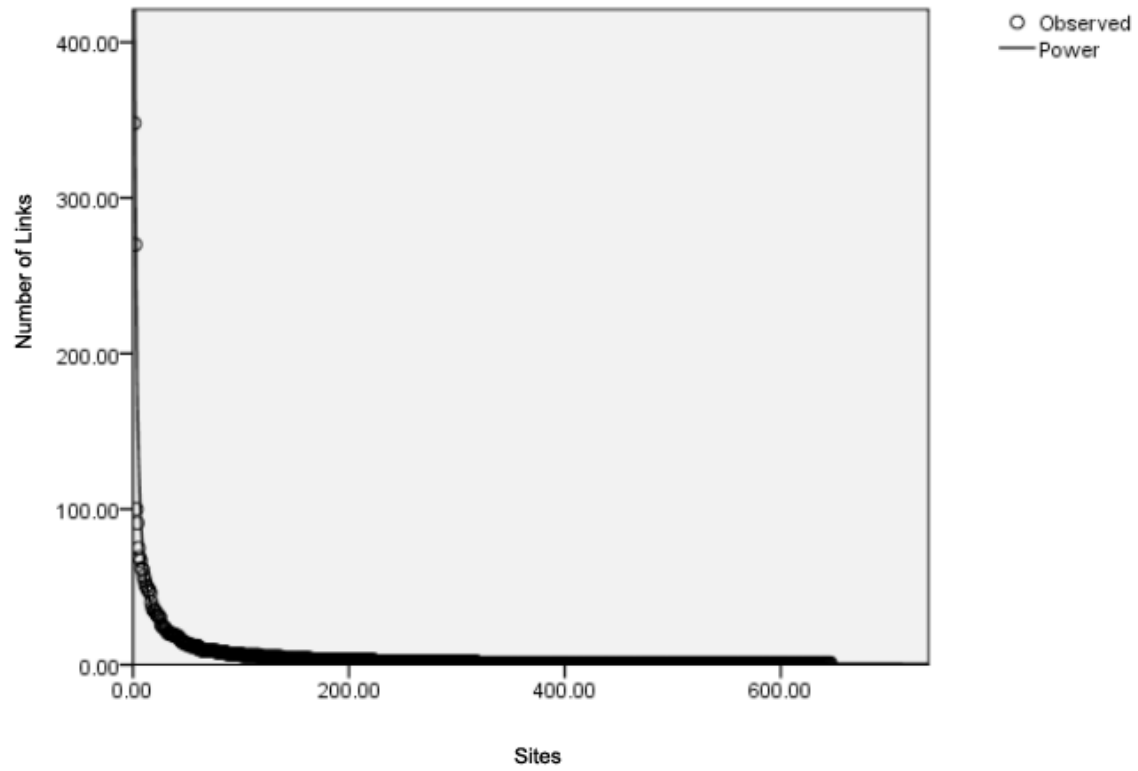
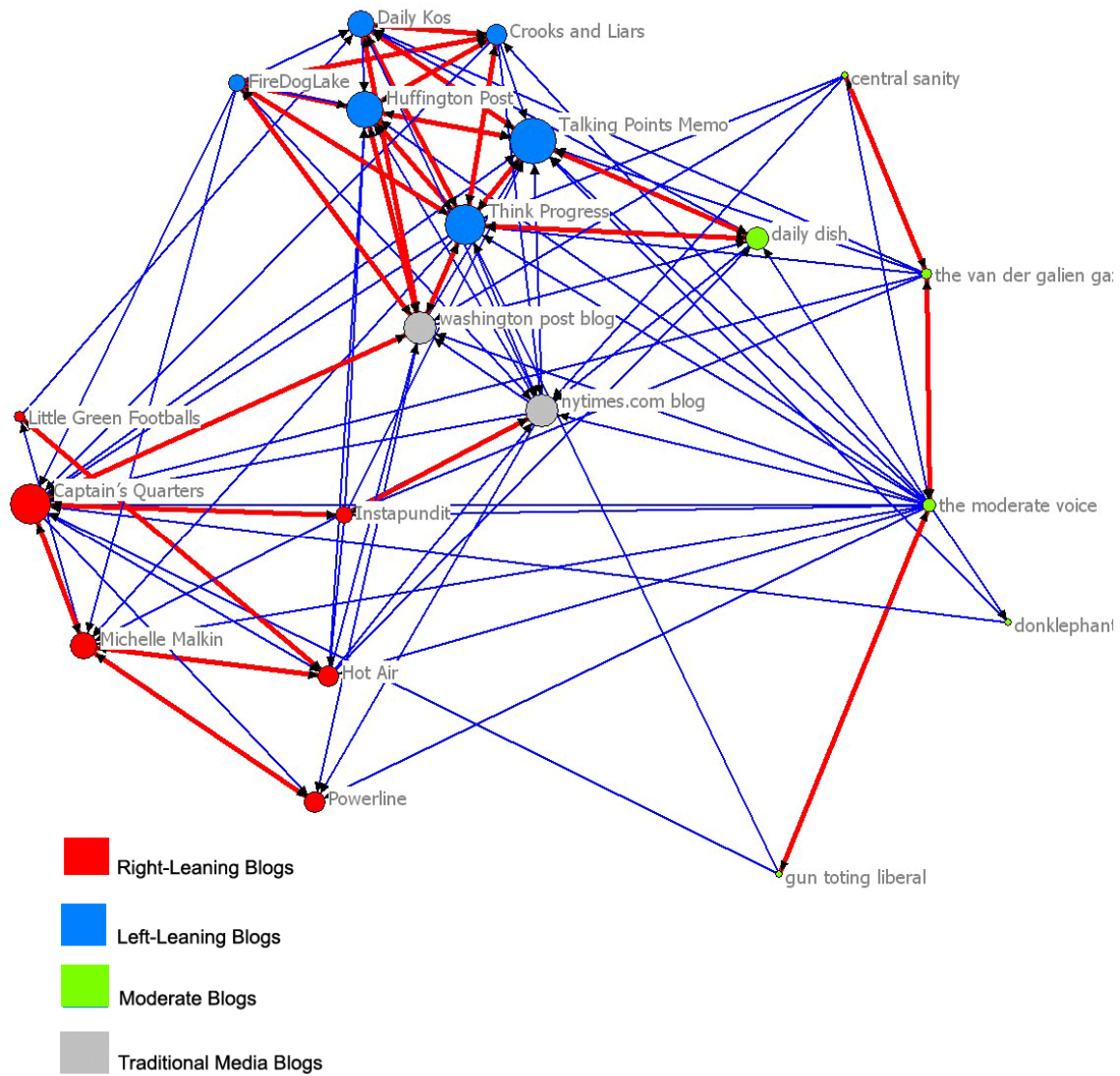Figure 13: Network Visualization of The Blogosphere Across All Issues

Daily Kos
Crooks and Liars
central sanity
FireDogLake
Huffington Post
Talking Points Memo
Think Progress
daily dish
the van der galien ga:
washington post blog
nytimes.com blog
Little Green Footballs
the moderate voice
Captain's Quarters
Instapundit
donklephant
Michelle Malkin
Hot Air
Powerline
gun toting liberal

Right-Leaning Blogs

Left-Leaning Blogs

Moderate Blogs

Traditional Media Blogs

Figure 14: Left-leaning Blogosphere's Power Law
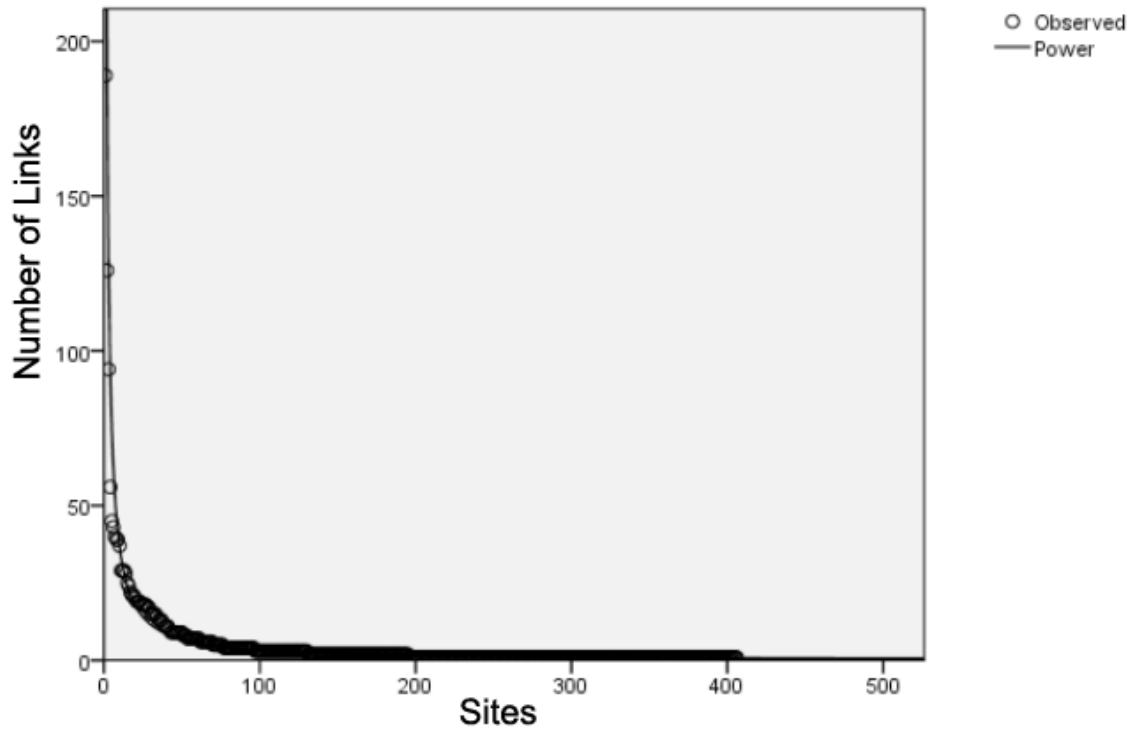
Figure 15: Right-Leaning Blogosphere's Power Law
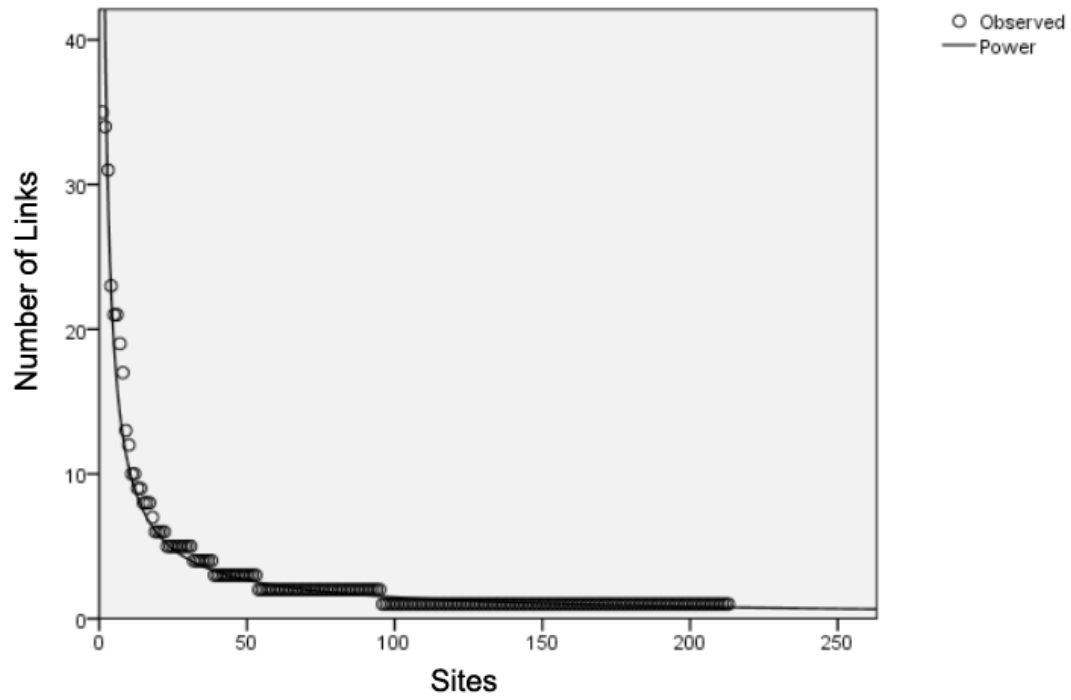
Figure 16: Moderate Blogosphere's Power Law

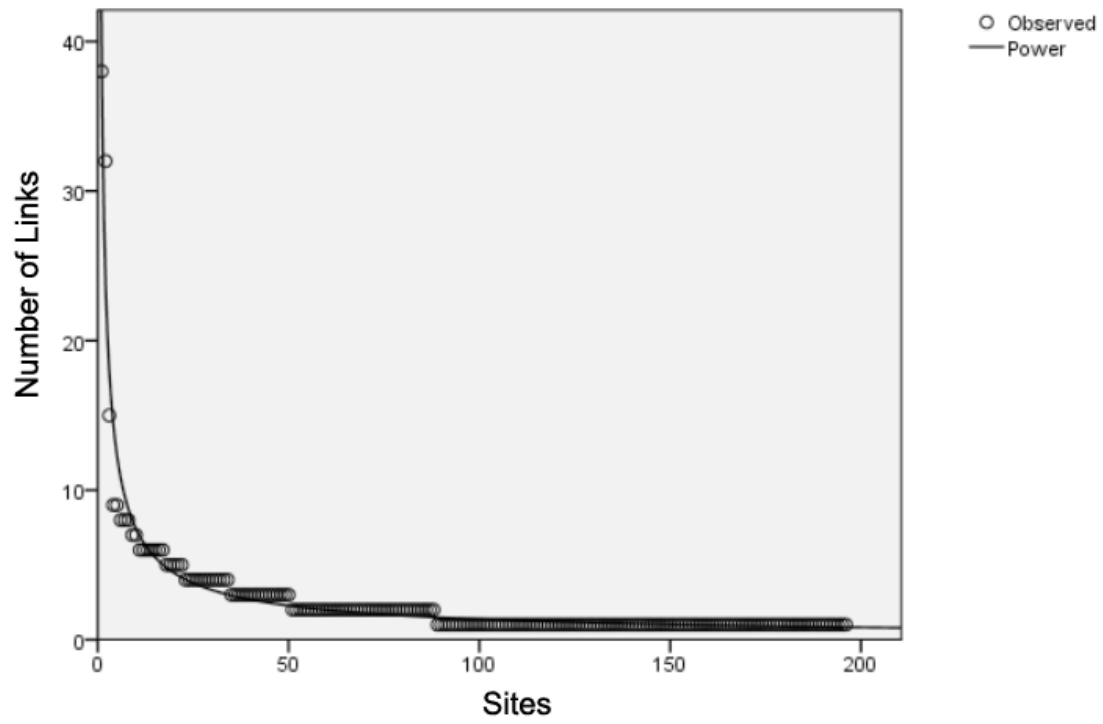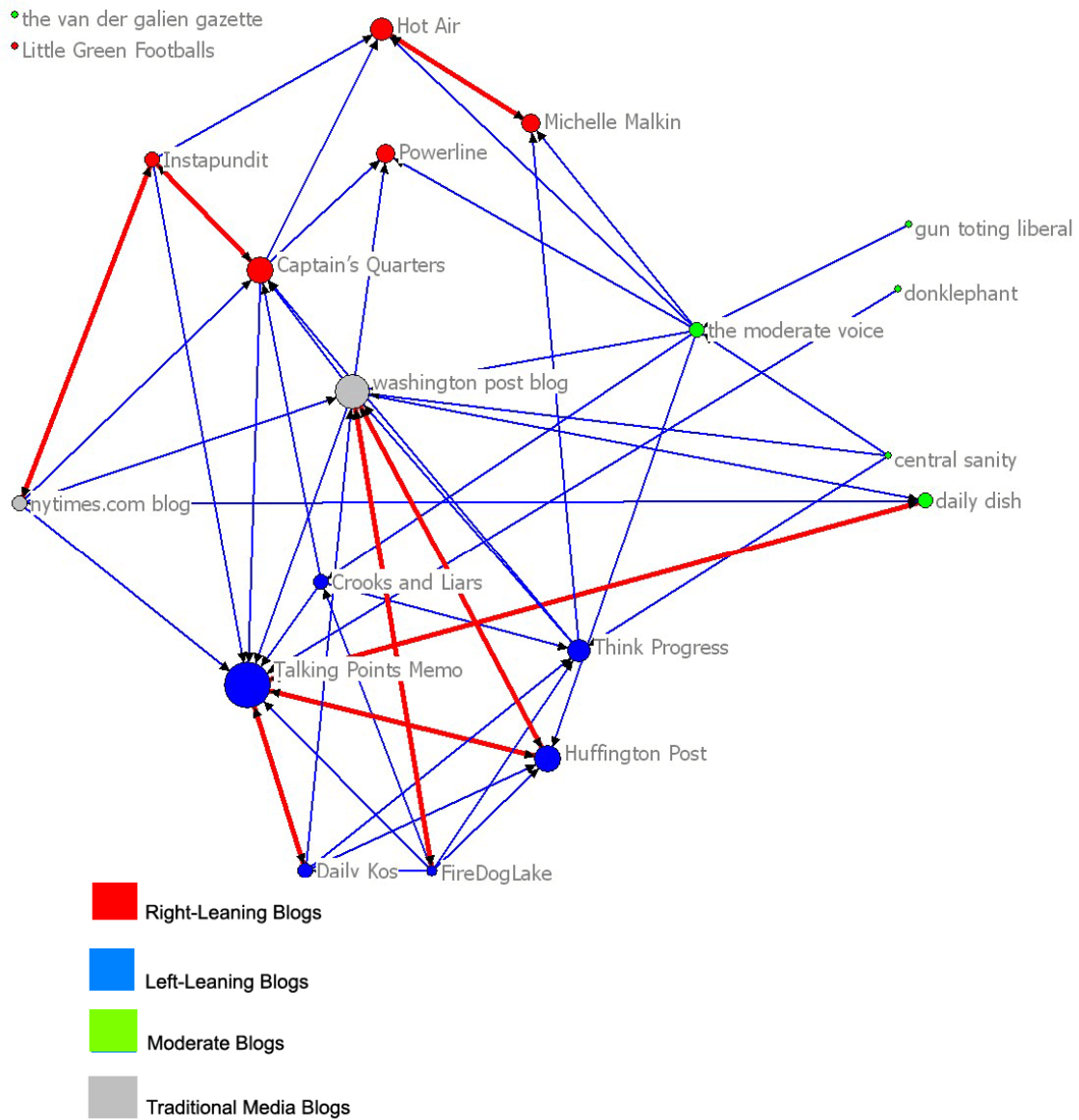Figure 17: Network Visualization on the Craig Issue

the van der galien gazette
Little Green Footballs

Hot Air

Michelle Malkin

Instapundit

Powerline

gun toting liberal

Captain's Quarters

donklephant

the moderate voice

washington post blog

central sanity

nytimes.com blog

daily dish

Crooks and Liars

Think Progress

Talking Points Memo

Huffington Post

Daily Kos

FireDogLake

Right-Leaning Blogs

Left-Leaning Blogs

Moderate Blogs

Traditional Media Blogs

Figure 18: Network Visualization on the Gonzales Issue

daily dish
Hot Air
Instapundit
Little Green Footballs
Michelle Malkin
nytimes.com blog

donklephant

Powerline

Captain's Quarters

gun toting liberal

FireDogLake

washington post blog

Daily Kos

Think Progress

Crooks and Liars

Talking Points Memo

the van der galien gazette

central sanity

the moderate voice

Huffington Post

- Right-Leaning Blogs
- Left-Leaning Blogs
- Moderate Blogs
- Traditional Media Blogs

Figure 19: Network Visualization on the Iraq Issue

Little Green Footballs

Captain's Quarters

Michelle Malkin

Hot Air

Powerline

Instapundit

nytimes.com

washington post blog

gun toting liberal

the moderate voice

FireDogLake

Huffington Post

daily dish

central sanity

donklephant

Think Progress

the van der galien gazette

Talking Points Memo

Crooks and Liars

Daily Kos

■ Right-Leaning Blogs

■ Left-Leaning Blogs

■ Moderate Blogs

■ Traditional Media Blogs

Figure 20: Model of Issue Agenda Setting Relationships Among Blog and Media
Networks
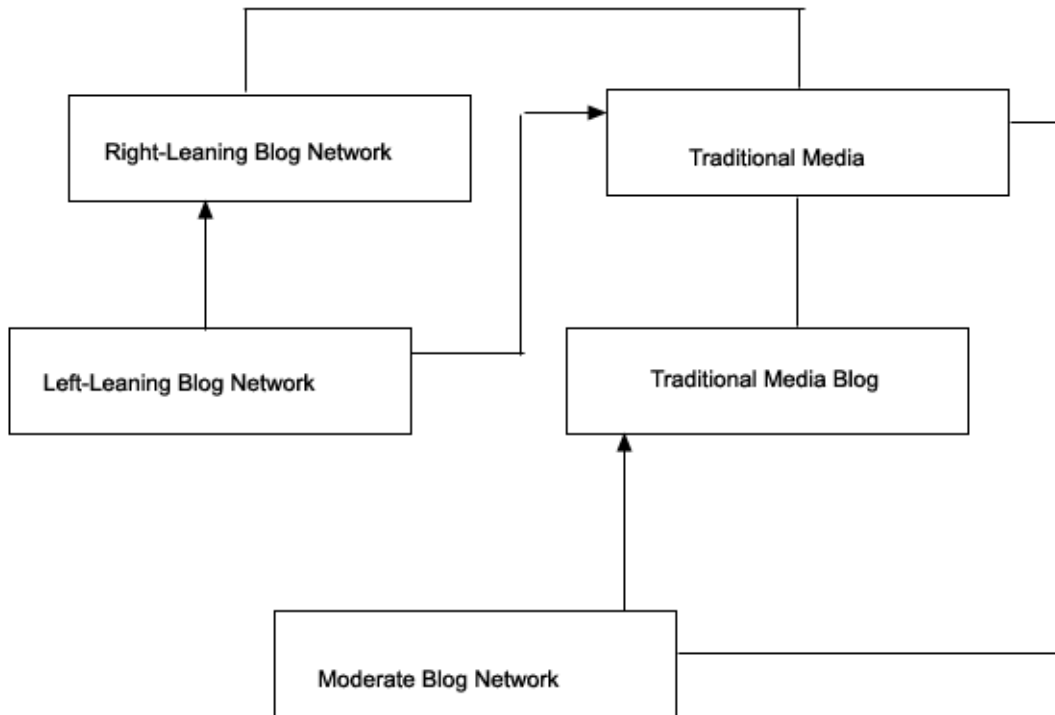
Figure 21: Model of Attribute Agenda Setting Relationships Among Blog and Media
Networks for the Petraeus Report Subframe of the Iraq Issue
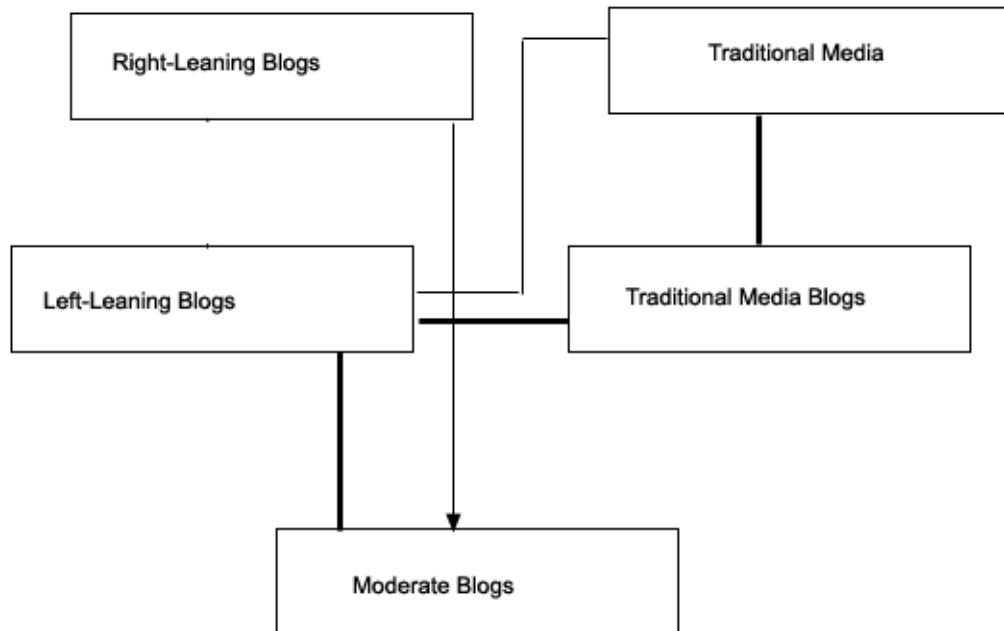
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Vita

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