

THE POWER AND POLITICS OF BLOGS

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ABSTRACT

Weblogs occupy an increasingly important place in American politics. Their influence presents a puzzle: given the disparity in resources and organization vis-à-vis other actors, how can a collection of decentralized, nonprofit, contrarian, and discordant websites exercise any influence over political and policy outputs? This paper answers that question by focusing on two important aspects of the “blogosphere”: the distribution of readers across the array of blogs, and the interactions between significant blogs and traditional media outlets. Under specific circumstances – when key weblogs focus on a new or neglected issue – blogs can socially construct an agenda or interpretive frame that acts as a focal point for mainstream media, shaping and constraining the larger political debate. These arguments receive support from a network analysis of blog links, as well as a survey of media professionals about their blog preferences.

Introduction

In late December 2002, Trent Lott resigned his position as Senate Majority Leader in the wake of inflammatory comments he made two weeks before at Strom Thurmond's 100th birthday party. Although the event was broadcast on C-SPAN and reported in the mainstream press, it took almost a week before the media devoted significant coverage to Lott's comments. The *Economist*, in its post-mortem on the Lott affair, concluded:¹

The mainstream media was initially blind to his [Lott's] remarks perhaps because it is used to such comments. But the "blogosphere" – websites of opinion and news, first known as weblogs – denounced the remarks vigorously, and would not let up, finally forcing others to take notice.

Most political analysts credited "bloggers" with converting Lott's gaffe into a full-blown scandal.² In the language of social science, weblogs – also called blogs – were not a causal variable in explaining Lott's downfall, but they were an important intervening variable.

The rise of blogs raises some vexing issues for the study of politics. Most particularly, why do blogs have any influence at all? Compared to other actors in domestic politics – specialized interest groups, political action committees, government bureaucrats, and the mass media – blogs do not appear to be either very powerful or very visible. Even the most popular blog receives only a fraction of the web traffic that major media outlets attract.³ According to the 2003 Pew Internet Survey, only 4% of online Americans report going to blogs for information and opinions, concluding: "The overall number of blog users is so small that it is not possible to draw statistically meaningful conclusions about who uses blogs."⁴ One account of blogs in the *New York Times* concluded, "Never have so many people written so much to be read by so few."⁵ An October 2003 survey of the blogosphere concluded:⁶

Blogging is many things, yet the typical blog is written by a teenage girl who uses it twice a month to update her friends and classmates on happenings in her life. It will be written very informally (often in "unicase": long stretches of lowercase with ALL CAPS

¹ *Economist*, "Mississippi Burning," 21 December 2002, p. 39.

² Mark Jurkowitz, "The descent of Trent Lott brings the rise of 'bloggers,'" *Boston Globe*, 26 December 2002; John Podhoretz, "The Internet's first scalp," *New York Post*, 13 December 2002; Oliver Burkeman, "Bloggers catch what *Washington Post* missed," *Guardian*, 21 December 2002. For an detailed chronology of the role blogs played in Lott's resignation, see Joel David Bloom, "The Blogosphere." Paper presented at the 2nd annual pre-APSA conference on Political Communication, Philadelphia, PA, August 2003.

³ Glenn Harlan Reynolds, "Symbiotic Media," Tech Central Station, 19 October 2002.

⁴ Pew Internet Project, "Blogs gain a small foothold."

<http://www.pewinternet.org/reports/reports.asp?Report=87&Section=ReportLevel2&Field=Level2ID&ID=662>, accessed 23 October 2003.

⁵ Katie Hafner, "For Some, the Blogging Never Stops," *New York Times*, 27 May 2004.

⁶ Jeffrey Henning, "The Blogging Iceberg," Perseus Development Corporation, <http://www.perseus.com/blogsurvey/thebloggingiceberg.html>, accessed 23 October 2003.

used for emphasis) with slang spellings, yet will not be as informal as instant messaging conversations (which are riddled with typos and abbreviations).

There is no central organization to the blogosphere. There is no ideological consensus among its participants. While some participants are well-versed in politics, the general lack of policy expertise makes it impossible to categorize bloggers as an epistemic community.⁷ Blogging as an activity is almost exclusively a part-time, voluntary enterprise.⁸ The median income generated by a weblog is zero dollars; the number of individuals in the United States that earn their living from blogging is less than twenty. Despite these constraints, blogs appear to play an increasingly important role as a forum of public debate, with knock-on consequences for the media and for politics.⁹ Given the disparity in resources and organization vis-à-vis other actors, how and when can a collection of decentralized, contrarian, and nonprofit websites exercise influence over political and policy outputs?

This paper addresses this puzzle by focusing on two interrelated aspects of the “blogosphere”: the unequal distribution of readers across the array of weblogs, and the increasing interactions between blogs and mainstream media outlets.¹⁰ Even though there are over a million bloggers, posting approximately 275,000 new items daily, the median blogger has almost no political influence as measured by traffic or hyperlinks. This is because the distribution of weblinks and traffic is heavily skewed, with a few bloggers commanding most of the attention. This distribution parallels the one observed for political websites in general.¹¹ Because of this distribution, a few “elite” blogs can operate as both an information aggregator and as a “summary statistic” for the blogosphere.¹²

The skewed distribution of weblog influence makes it easy for observers to extract information or analysis from blogs – but the reason they are important is that journalists and opinion leaders are readers of blog. Why? Personal network ties between media outlets and blogs help; so does the local knowledge or policy expertise that some bloggers possess. Finally, blogs have the comparative advantage of speedy publication – they have a first-mover advantage in socially constructing interpretive frames for understanding current events. As a result, political commentators will rely on blogs as sources of interpretive frames for political developments. Under a specific set of

⁷ Peter Haas, “Introduction: Epistemic Communities and International Policy Coordination,” *International Organization* 46, (Spring 1992): 1-35.

⁸ In one online survey of active bloggers, politics ranked only 5th out of 15 possible topics of individual posts. The first four topics were all variants of bloggers writing about their own personal experiences. See Christine Carl, “Bloggers and Their Blogs: A Depiction of the Users and Usage of Weblogs on the World Wide Web,” M.A. thesis, Georgetown University, April 2003, p. 66.

⁹ See, for example, Joseph Graf and Carol Darr, “Political Influentials Online in the 2004 Presidential Campaign,” Institute for Politics, Democracy and the Internet, George Washington University, Washington, DC, February 2004. Available at <http://www.ipdi.org/UploadedFiles/political%20influentials.pdf> (accessed 20 July 2004).

¹⁰ This focus is not meant to exclude other important potential effects of blogs on politics – such as how blogs may affect both political fundraising and political participation. On the latter, see the paper by Laura McKenna and Antoinette Pole in this panel.

¹¹ Matthew Hindman, Kostas Tsiotsioulis, and Judy Johnson, “‘Googlearchy’: How a Few Heavily-linked Sites Dominate Politics Online,” Paper presented at the annual meeting of the American Political Science Association, Philadelphia, PA, August 2003.

¹² See <http://www.sifry.com/alerts/archives/000356.html> (checked July 16, 2004).

circumstances – when elite blogs concentrate their attention on a breaking story or an underreported story – the agenda-setting power of blogs may create focal points for general interest intermediaries.¹³

This paper is divided into seven sections. The next section provides a brief description of weblogs and their growing influence in political life. The third section of the paper reviews the structure of the blogosphere, demonstrating that weblogs follow a lognormal distribution in terms of links. The fourth section discusses the political implications of this skewed distribution in the blogosphere. The fifth section examines how weblogs and more mainstream media interact in symbiotic ways to enhance the influence of blogs. The sixth section discusses the myriad constraints on the influence of blogs. The final section summarizes and concludes with a note about the blogosphere's effect on political discourse.

A brief background to blogs

A weblog is defined here as a web page with minimal to no external editing, providing on-line commentary, periodically updated and presented in reverse chronological order, with hyperlinks to other online sources.¹⁴ Blogs can function as personal diaries, technical advice columns, sports chat, celebrity gossip, political commentary, or all of the above. This paper's focus will be on the political function of blogs.

The blogosphere has grown at an astronomical rate.¹⁵ In 1999 the number of blogs was estimated at under fifty; at the end of 2000, estimates ranged into the thousands.¹⁶ Less than three years later, such estimates range from 2.4 million to 4.1 million.¹⁷ One study estimates that by 2005, over ten million blogs will have been created.¹⁸ The majority of blogs are written in English.¹⁹ Media attention to blogs has also increased at a geometric rate. A Lexis-Nexis search reveals only eleven articles mentioned "weblog" between 1995 and 1999. That number increased to 56 in 2000, 128 in 2001, 272 in 2002, and 647 in 2003.

One reason for the dramatic proliferation of blogs is the low barriers to entry. Although some blogs are more than five years old,²⁰ the real spur to their growth came in

¹³ On the role of focal points in politics, see Thomas Schelling, *The Strategy of Conflict* (Cambridge: Harvard University Press, 1960).

¹⁴ A very useful glossary of blogging terms can be found at <http://www.samizdata.net/blog/glossary.html>.

¹⁵ For histories of blogging, see Rebecca Blood, *The Weblog Handbook*, and Blood, "Weblogs: A History and Perspective," in *We've Got Blog: How Weblogs are Changing Our Culture*.

¹⁶ Rebecca Mead, "You've Got Blog," *The New Yorker*, 13 November 2000.

¹⁷ Henning, "The Blogging Iceberg," Phil Wolff, "The Blogcount Estimate," 23 June 2003. Accessed at http://dijest.com/bc/2003_06_23_bc.html#105638688729256217, 20 September 2003. At the time of writing (July 2004), the Technorati aggregation service lists over three million blogs.

¹⁸ Henning, "The Blogging Iceberg."

¹⁹ Robyn Greenspan, "Blogging by the Numbers," 23 July 2003. Accessed at http://cyberatlas.internet.com/big_picture/applications/article/0_1301_2238831_00.html, 20 September 2003.

²⁰ Dave Winer, an early enthusiast of blogging, points out: "The first weblog was the first website, <http://info.cern.ch/>, the site built by Tim Berners-Lee at CERN. From this page TBL pointed to all the new

1999 when Pyra Labs developed its user-friendly Blogger software and made it freely available to online users.²¹ At present, any individual with Internet access can go to www.blogger.com and set up a weblog in less than ten minutes. The costs are minimal as well – one online publisher points out, “One weblog item has about one hundredth the editorial cost of a commissioned article. The content management software is nearly free.”²² As blogging has grown, additional software programs – such as Movable Type and Typepad – have developed to facilitate the activity. In recognition of the phenomenon, America On Line made it possible for its customers to set up their own blogs in its summer 2003 release.

As the blogosphere has grown, a variety of institutions have adopted the form.²³ A number of opinion journals – including *The New Republic*, *Slate*, *Salon*, *New Criterion*, *The American Prospect*, *Reason*, *The Washington Monthly*, and *The National Review* – either sponsor individual bloggers or have developed their own house blogs. Newspapers with blogs include the *San Jose Mercury News*, *Christian Science Monitor*, *Chicago Tribune*, and the *Guardian*. The web sites of Fox News, ABC News and MSNBC all host weblogs.²⁴ All of the major contenders for the 2004 Democratic presidential nomination – most prominently, Howard Dean – established official campaign blogs.²⁵ Democracy advocates in both Iran and Iraq have adopted blogging as a technique for registering dissent. In the United States, businesses are starting to use blogs as tool for promotional campaigns.²⁶

Beyond the Trent Lott episode, there is evidence that blogs have affected real world events. Carol Darr, director of the Institute for Politics, Democracy and the Internet at George Washington University, recently observed, “Many people don’t take into account how influential bloggers are. Blogs are getting an increasing readership.”²⁷ Blogs have had a particularly pronounced effect on the media.²⁸ One proximate cause for Howell Raines’ resignation as editor of the *New York Times* in June 2003 was the

sites as they came online.” For more on the early history of blogs, go to:

<http://newhome.weblogs.com/historyOfWeblogs>.

²¹ Doug Bedell, “Weblogs are alternative voices, offering entry into online world,” *San Diego Union-Tribune*, May 16, 2000, p. 8.

²² Nick Denton, “Weblog economics,” 10 October 2002. Accessed at <http://www.nickdenton.org/archives/000917.html#000917>, 20 September 2003.

²³ Matt Welch, “Blogworld,” *Columbia Journalism Review*, September/October 2003. Brian Carroll has pointed out that this integration has not always gone smoothly. Carroll, “Culture Clash: Journalism and the Communal Ethos of the Blogosphere,” in *Into the Blogosphere: Rhetoric, Community and Culture of Weblogs*, edited by Laura Gurak *et al.* Online at <http://blog.lib.umn.edu/blogosphere/> (accessed 20 July 2004).

²⁴ For hyperlinks to all of these blogs, see *ibid.*, and Matt Welch, “The Media Go Blogging,” *Columbia Journalism Review*, September/October 2003, at <http://www.cjr.org/issues/2003/5/blogsidebar-welch.asp>. For a comprehensive list of journalist-bloggers, see American Press Institute, “The Cyberjournalist List,” at <http://www.cyberjournalist.net/cyberjournalists.html#professional>.

²⁵ Edward Cone, “The Marketing of the President 2004” *Baseline Magazine*, December 2003. Intriguingly, although Howard Dean’s Blog for America garnered the lion’s share of media attention, one study conducted in the fall of 2003 concluded that John Kerry’s campaign blog had the best technical performance. See Empirix, “Benchmark Study of Political Candidates’ Blog Sites,” 10 November 2003.

²⁶ For more on this campaign by Dr. Pepper, see www.ragingcow.com.

²⁷ Quoted in Anastasia Ustinova, “Political Blogs Catching On,” *Chicago Tribune*, 18 July 2004.

²⁸ Mark Glaser, “To Their Surprise, Bloggers are Force for Change in Big Media,” *Online Journalism Review*, 26 May 2004. <http://ojr.org/ojr/ethics/1085527295.php> (accessed 1 June 2004).

heightened attention bloggers gave to the fallout from the Jayson Blair scandal. One blog – James Romenesko’s *Media News*²⁹ – essentially functioned as a bulletin board for disgruntled *Times* staffers, sustaining the media glare on Raines. The same week that Raines resigned, the *Guardian* published a story on its online edition that misquoted Deputy Secretary of Defense Paul Wolfowitz. In the ensuing hours, numerous bloggers linked to the story and highlighted the error, leading the *Guardian* to retract the story and apologize to its readers.³⁰

[Not surprisingly with such a new technology, the median age of bloggers is lower than the general population of Internet users.³¹ However, survey research suggests that the demographics of bloggers do not differ in any appreciable way from Internet users as a whole. One online survey suggests that in terms of gender balance and income distribution, the community of bloggers is *more* representative of the general population than Internet users.]

The networked structure of the blogosphere

Perhaps the most important difference between blogs and more traditional media is that blogs are networked phenomena that rely on hyperlinks. Some blogs consist of little more than lists of hyperlinks; others include lengthy commentaries.³² All blogs by definition link to other sources of information, including, most pertinently, other blogs. The universe of blogs is conventionally referred to as the “blogosphere.”

Links between blogs take two forms. First, many bloggers maintain a “blogroll” on their website; a list of blogs that they frequently read or especially admire, with clickable links to the general URLs (web addresses) of those blogs. Blogrolls usually occupy a permanent position on the blog’s home page. Blogrolls provide an excellent means of situating a blogger’s interests and preferences within the blogosphere; bloggers are likely to use their blogrolls to link other blogs that have shared interests. Second, bloggers may write specific posts that contain hyperlinks to other blogs. Unlike links in the blogroll, links within posts will be archived as new posts replace old ones over time. Typically, such posts themselves link directly to a specific post on the other blog (rather than the blog’s general URL address), perhaps also providing some commentary on that post.

Posts commenting on posts are a key form of information exchange in the blogosphere. Although they mean that discussions in the blogosphere can often have the characteristics of an echo-chamber – bloggers commenting on bloggers commenting on bloggers– they also allow for a means of rough and ready information filtering.

²⁹ <http://www.poynter.org/medianews/>

³⁰ The Guardian, “Corrections and Clarifications,” 6 June 2003. Available at <http://www.guardian.co.uk/corrections/story/0,3604,971436,00.html> (accessed 22 September 2003).

³¹ The data in this paragraph comes from Carl, “Bloggers and Their Blogs,” pp. 49-55, 82-83, and Henning, “The Blogging Iceberg.”

³² Bloggers themselves are conscious of the division of labor. Steven Den Beste describes bloggers who provide a high ratio of links to commentary as “linkers,” while those with a low ratio as “thinkers.” Den Beste, “Lots of Traffic,” http://denbeste.nu/cd_log_entries/2002/04/Lotsoftraffic.shtml, accessed January 9, 2004.

Links and page views are the currency of the blogosphere. Many bloggers desire a wide readership.³³ Conventional wisdom suggests that “[t]he most reliable way to gain traffic [readership] is through a link on another weblog.”³⁴ This stems from the nature of hypertext. *Ceteris paribus*, when one blog links to another, the readers of the former blog are more likely to read the latter after having clicked on a hyperlink than they would have been otherwise. If they like what they read, they may even become regular readers of the second blog.

Thus, bloggers are keenly interested in discovering other blogs that link to them,³⁵ and are able to discover such blogs through a variety of means. These include analysis of traffic data, general search engines such as Google (<http://www.google.com>), searchable databases of bloglinks such as Technorati (<http://www.technorati.com>) and the Blogosphere Ecosystem (<http://www.truthlaidbear/ecosystem.php>) and the “TrackBack” capabilities included in some blogging software packages.³⁶

Permanent links in the blogroll are more valuable to third-party blogs than links from posts that are likely to disappear over time. Links in the blogrolls of prominent blogs with many readers are especially valuable, as they may lead to quite significant increases in readership. A variety of informal norms have come into being, instantiating expectations over the circumstances under which one blog should link to another. For example, when a blogger finds a link to an interesting source of information on another blog, (s)he is expected to credit the latter in any post (s)he writes that links to the source of information.³⁷ Casual empiricism suggests that there are moderate pressures towards reciprocity; many bloggers expect that if they link to you, you should link to them, especially if your blog is less “popular” (has less existing links from outside blogs) than theirs. The structural consequences of these and other forms of exchange for the shape of the blogosphere have yet to be explored.

Blogs and the hyperlinks between them form a network, and are thus amenable to network analysis; the individual blogs may be treated as the “nodes” or “vertices” of the network and the links connecting them as “ties” or “edges.”³⁸ The number of links to a particular blog (in network analysis terminology, the number of ties to a particular node) is its “degree.” The existing literature provides two partially overlapping approaches to the study of networks.

First, economic sociologists have developed a variety of tools to study the social and economic consequences of actors’ embeddedness within networks over the last fifty years.³⁹ This literature has concentrated on relatively small scale networks, or networks

³³ The obvious exceptions are authors of “personal” blogs, online diaries which are written for an intimate group of family and/or friends. As these blogs are non-political in nature, we do not consider them in this paper.

³⁴ p.98, Rebecca Blood, *The Weblog Handbook*.

³⁵ Rebecca Blood, *The Weblog Handbook*.

³⁶ The trackback feature operates much like the Social Science Citation Index – it lists posts on other blogs that have referenced a particular entry.

³⁷ Rebecca Blood, *The Weblog Handbook*.

³⁸ Discussions among scholars of networks are complicated by the existence of two, quite different sets of terminology to discuss the same basic relationships; those employed by traditional sociologists, and those employed by physicists interested in large-scale networks.

³⁹ For an excellent introduction to the approach, see Roger V. Gould, “Uses of Network Tools in Comparative Historical Research,” *Comparative Historical Analysis in the Social Sciences*, edited by James Mahoney and Dietrich Rueschemeyer (Cambridge: Cambridge University Press, 2003); also Barry

where simplifying assumptions can be employed to render the data tractable without losing too much analytical bite. The mathematical techniques that have been developed by sociologists become exponentially more demanding as the size of the network increases, and soon require inordinate levels of computing resources. Nevertheless, where applicable, these techniques provide highly useful tools both for describing certain aspects of the network as a whole (as, for example, the relative degree of centralization of the network), and specific relations among sub-groups of actors within the network.

This kind of network analysis is relatively well known among political scientists. The same is not true of a second, more recent body of work exploring the broader effects of network topology, which borrows heavily from recent work in physics.⁴⁰ This body of work eschews a detailed focus on relationships among nodes within a network in favor of the “consideration of large-scale statistical properties of graphs.”⁴¹ Traditionally, scholars have concentrated on the study of random graphs, in which undirected ties between nodes are created through a random process, so that the number of ties connected to each node is distributed according to a binomial distribution (or Poisson distribution for very large networks).⁴² However, many networks are not well represented by random graphs, and appear to have very different distributions of ties.

In particular, some networks appear to have skewed distribution in which most nodes have a relatively small number of ties, but a small number of nodes have a disproportionately large number of ties. In such networks, the best-connected nodes will have a much greater number of ties than the less well connected. These skewed distributions have become an important subject of investigation in recent years; they have been observed across a variety of phenomena in the physical and social sciences, including word frequency in the English language, movie star collaboration, scientific collaboration on papers, protein folding, and, most relevantly, web page links.

In power law distributions, the probability that a particular node has degree k is a function of $k^{-\gamma}$, where γ is a positive constant. Power law distributions can be produced by various models of growth; in particular, they are likely to be found in growing networks where nodes that already have a large number of ties are more likely to receive incoming ties from new nodes than nodes that have few such ties. In such networks, initial advantages are self-reinforcing; nodes that are rich in ties are likely to become even richer over time, generating a power law distribution of ties across nodes.⁴³

Wellman and S. D. Berkowitz, “Introduction: Studying Social Structure,” *Social Structure: A Network Approach*, edited by Barry Wellman, and S. D. Berkowitz (Cambridge: Cambridge University Press, 1988) and Ronald S. Burt, “Models of Social Structure,” *Annual Review of Sociology* 6, 79-141 (1980). For an exemplary empirical application, see John Padgett and Christopher K. Ansell. 1993, “Robust Action and the Rise of the Medici,” *American Journal of Sociology* 98(6): 1259-1319.

⁴⁰ For an excellent and accessible overview of this literature, see M.E.J. Newman, “The Structure and Function of Complex Networks,” available at <http://arxiv.org/cond-mat/030316v1/> (checked xxxx). See also Réka Albert and Albert-László Barabási, “Statistical Mechanics of Complex Networks,” available at <http://xxx.lanl.gov/abs/cond-mat/0106096> (checked July 19, 2004) for a more technical account. For applications to the social sciences, see Duncan Watts, *Small Worlds* (Princeton NJ: Princeton University Press, 1999) and Duncan Watts, *Six Degrees: The Science of a Connected Age* (New York: Norton 2003).

⁴¹ p.2, M.E.J. Newman, “The Structure and Function of Complex Networks.”

⁴² p.9, Ibid.

⁴³ Although note that Barabási and Albert’s predictions are at odds with empirical data on the WWW in some important respects; see Lada A. Adamic and Bernardo A. Huberman, “Technical Comment to

Barabási and his colleagues demonstrate that a power law distribution applies to hyperlinks on the World Wide Web.⁴⁴ Web pages are more likely to link to other web pages that already have a relatively high number of links. Matthew Hindman, Kostas Tsitsioulis, and Judy Johnson find a similar pattern of power-law distribution when examining online websites about politics.⁴⁵

Other types of skewed distributions have been observed in other social contexts.⁴⁶ Lognormal distributions may be associated with multiplicative processes such as those characterizing organism or population growth or website or file size than with phenomena such as the growth of links between nodes on a network.⁴⁷ More to the point, David M. Pennock *et al* report that the distribution of incoming links among subsets of webpages of the same type is roughly similar to a lognormal distribution, suggesting that the micro-structures of subject-specific segments of the WWW deviate in important ways from its macro-structure.⁴⁸ They suggest a modified model of network growth in which each node in a network has at least some chance of receiving a new tie. While “rich” sites are still likely to get “richer,” as in Barabási and Albert’s model, “poor” sites too stand some chance of getting rich, if they are lucky.

Given the existing literature, we hypothesized that incoming links between political blogs, like links between web pages more generally, would have a markedly skewed distribution. The blogosphere, like the WWW, evolves through an evolutionary process that has some important features in common with Barabási and Albert’s model. New bloggers are likely to add themselves to the network when they create links to other, existing blogs, as a means of announcing their existence to the blogosphere;⁴⁹ one may reasonably predict that they are more likely to create links to well established bloggers who already have many inbound links, than to other unknowns. Previous research supports this prediction. A power law distribution of blog-links was first hypothesized by Clay Shirky, who used data from the Blogosphere Ecosystem to examine whether there was a power-law distribution of links among 433 blogs.⁵⁰ Shirky found that the top dozen bloggers (less than 3% of the total examined) accounted for approximately 20% of the incoming links. A second study by Jason Kottke, of the top 100 blogs on Technorati, found a power-law relationship, with an R-squared of .99.

“Emergence of Scaling in Random Networks,” available at <http://www.hpl.hp.com/research/idl/papers/scalingcomment/scalingcomment.pdf> (checked July 18, 2004).

⁴⁴ See Albert-László Barabási et al., “Power Law Distribution of the World Wide Web,” *Science* 287:x-x (2000).

⁴⁵ Hindman, Tsitsioulis, Judy Johnson, “Googarchy.” For a contrary opinion – which argues that the distribution of hard news on the Internet is *less* skewed than other media, see James T. Hamilton, *All the News That’s Fit to Sell* (Princeton: Princeton University Press, 2004).

⁴⁶ On the skewedness of lognormal distributions see Bernardo A. Huberman, *Scale Free Networks: Structure, Dynamics and Search*, available at <http://www.complexityscience.org/NoE/bernardo.pdf> (checked July 15, 2004).

⁴⁷ Michael Mitzenmacher, “A Brief History.”

⁴⁸ David M. Pennock, Gary W. Flake, Steve Lawrence, Eric J. Glover and C. Lee Giles, “Winners Don’t Take All: Characterizing the Competition for Links on the Web,” available at <http://modelingtheweb.com/pennock-pnas-2002-weblinks.pdf> (checked July 20, 2004).

⁴⁹ Rebecca Blood, *The Weblog Handbook*.

⁵⁰ See Clay Shirky, “Power Laws, Weblogs and Inequality,” available at http://shirky.com/writings/powerlaw_weblog.html (checked November 9, 2003).

We have conducted our own initial study, using data on incoming links from the Blogosphere Ecosystem.⁵¹ Figure 1 ranks blogs in terms of their number of incoming links (the blog with most incoming links being ranked first, the blog with the second most being ranked second and so on), and graphs this against the absolute number of incoming links for that blog. This provides a quick and easy way to visualize the structure of the underlying network of links among blogs. As can easily be seen, the graph supports the hypothesis that there is a very substantial degree of skewedness in the distribution of incoming links among political bloggers. There are a very few highly ranked blogs with many incoming links, followed by a steep fall-off, and a very long ‘tail’ of medium-to-low ranked bloggers with few or zero incoming links.

Figure 1 about here.

In contrast to Shirky and Kottke’s findings about the blogosphere in general, our results suggest that the distribution of political blogs is lognormal in nature. Visual inspection of the log-log relationship reveals a substantial degree of curvilinearity, suggesting systematic, rather than random deviation from a power law distribution (see Figure 2). When the observed distribution is fit to both a lognormal distribution and a Pareto distribution,⁵² the lognormal is a better visual fit, and a much better fit in terms of MLE.⁵³ The data are some 13 million times more likely under the lognormal model than the Pareto model. We may thus safely conclude that the distribution of links among blogs is better characterized by the lognormal distribution than the power law distribution.

Figure 2 about here

Figure 3 about here.

	Total Log-Likelihood
Lognormal Distribution	-17218.22
Pareto Distribution	-18481.51

⁵¹ For this paper, we are employing a snapshot of the relationships between 4,543 blogs on October 18, 2003. There is no entirely satisfactory source of data on political blogs. Technorati is by far the most comprehensive source of data on blog linkages, but includes a preponderance of non-political blogs. The Blogosphere Ecosystem has a much smaller sample of blogs, but is almost certainly more representative of the particular sub-population of blogs that we wish to examine.

⁵² The MLE test of goodness of fit to a lognormal and a Pareto distribution was both suggested and carried out by Cosma Shalizi. The Pareto distribution is a simple variant of the power law distribution – see Lada A. Adamic, *Zipf, Power-Laws, and Pareto – a Ranking Tutorial* (Palo Alto: Xerox Research Center n.d.), available at <http://www.hpl.hp.com/research/idl/papers/ranking/ranking.html>, checked July 13, 2004.

⁵³ While many scholars use the R-squared of the log-log relationship as an estimator of closeness of fit to an underlying power law distribution, interpretation is often problematic – many distributions that are not power law distributions have high R-squared across a wide range. Communication from Cosma Shalizi.

We suggest that the most reasonable interpretation of this result is that the underlying pattern of network growth in the political blogosphere is closer to the revised model set out by Pennock et al. (which predicts a roughly lognormal distribution) than that set out by Barabási and Albert. This has some implications for the openness of the political blogosphere. While blogs rich in links are indeed likely to get richer, we tentatively predict that some link-poor blogs too may become ‘rich’ over time – the political blogosphere is not closed to new entrants. Even so, this will maintain a skewed distribution over time, so that our primary hypothesis – that the political blogosphere has a highly skewed distribution of links – is supported.

How skewedness affects politics

How does a skewed distribution of links affect the relationship between blogs and politics? To date, there has been remarkably little study of the relationship between skewed distributions and politics.⁵⁴ Building on a suggestion first made by Robert Sugden, we wish to suggest that the existence of a skewed distribution has important consequences for the respective *salience* of different blogs.⁵⁵ Sugden argues that actors in both mixed motive and pure coordination games may employ a collectively rational decision rule to coordinate on mutually beneficial equilibria. If players share common knowledge regarding the underlying distribution of a random variable, z and a labeling procedure that attaches an ordered set of labels to each value of z , they may find it easier to coordinate in a matching game (where they need to coordinate on some value of z) if the distribution of z is significantly skewed.⁵⁶ As Sugden observes, certain distributions provide precisely the sort of skewedness that is likely to help actors resolve coordination problems.⁵⁷ Under such distributions, the decision rule of “choose the most frequently mentioned element of z ” will be ‘collectively rational,’ so that players may easily come to coordinate on the most frequently mentioned value of z . Thus, power law or lognormal distributions may create especially ‘attractive’ focal points that will allow individuals to coordinate more easily. Where actors must coordinate by choosing a particular value of a variable, z , and z is subject to a power law or lognormal distribution, then the most frequent value of z is likely to be a focal point; it will be substantially more numerous than the second most frequent value, and will consequently stand out from the distribution for all players. The second most frequent value will similarly be more salient than the third.

Sugden’s arguments have clear implications for the relative salience of blogs. The skewed distribution of links among blogs mean that only a few blogs are likely to become

⁵⁴ Despite Herbert Simon’s role in the discovery of these models, very few political scientists have taken up insights from the relevant literature. For notable exceptions, see Matthew Hindman, Kostas Tsiotsioulis, and Judy Johnson, “‘Googlearchy,’” and Lars-Erik Cederman, “Modelling the Size of Wars: From Billiard Balls to Sandpiles,” *American Political Science Review*, 97,1:135-150 (2003).

⁵⁵ Robert Sugden, “A Theory of Focal Points,” *The Economic Journal* 105, 430:533-550 (1995).

⁵⁶ Robert Sugden observes: “It is, I suggest, a matter of common experience that, for most broad classes of object... the distribution of ‘frequency of being mentioned’ is highly skewed.... Roughly: a very few elements are mentioned quite frequently; a very large number of elements are mentioned very rarely.” Sugden, “A Theory of Focal Points,” p. 547.

⁵⁷ Sugden specifically mentions Zipf distributions, which are closely related to power law distributions; see Lada A. Adamic, *Zipf, Power-Laws, and Pareto*.

focal points; those with very high numbers of links, or with some other characteristic that makes them especially salient.⁵⁸ Blogs that are focal points are likely to “stand out” in a very important way for actors who wish to solve coordination games. Here, we suggest that focal point blogs offer both a means of filtering ‘interesting’ blog posts out from ‘uninteresting’ ones, and furthermore provide an important coordination point that allows bloggers and blog readers to coordinate on a mutually beneficial equilibrium.⁵⁹

We argue that bloggers and readers face an important coordination problem, which may be analyzed as a pure coordination game. The problem is as follows. Most bloggers wish to maximize their readership, but face very substantial difficulties in gaining new readers. Given the vast number of blogs even in the political subsection of the blogosphere, it is extraordinarily hard for them to attract readers, even when they have something interesting and unique to offer. Blog readers, for their part, have an interest in finding interesting blog posts. However, given search costs and limited time, it is near impossible for readers to sift through the vast amounts of available material in order to find the interesting posts.

Blogs with large numbers of incoming links offer both a means of filtering interesting blog posts from less interesting ones, and a focal point at which bloggers with interesting posts, and potential readers of these posts can coordinate.⁶⁰ When less prominent bloggers have an interesting piece of information or point of view that is relevant to a political controversy, they will usually post this on their own blogs. However, they will also often have an incentive to contact one of the large ‘focal point’ blogs, to publicize their post. The latter may post on the issue with a hyperlink back to the original blog, if the story or point of view is interesting enough, so that the originator of the piece of information receives more readers. In this manner, bloggers with fewer links function as “fire alarms” for focal point blogs, providing new information and links. This reduces the need for bloggers at the top of the link structure to engage in “police patrols” to gather information on their own.⁶¹ This may lead to a self-enforcing equilibrium in which readers coordinate on focal point blogs, because they know that they will find links to many interesting stories, and bloggers will seek to interest focal point blogs in their stories, because they know that they are likely to find more readers if they are successful.

The skewed network structure of the blogosphere makes it less costly for outside observers to acquire information from blogs. The networked structure of the blogosphere allows interesting arguments to make their way to the top of the blogosphere. Because of the lognormal distribution of weblogs, the media only needs to look at the top blogs to

⁵⁸ Salience within the blogosphere may be reinforced by salience elsewhere; we may expect that bloggers who are well known in other social contexts, or who are affiliated to well-known institutions or publications will find it easier to attract attention than others

⁵⁹ We stress that the terms ‘interesting’ and ‘uninteresting’ are not used here as measures of absolute merit. Nor do we claim that the blogosphere is efficient in absolute terms in aggregating information and opinions – doubtless, many very interesting blogs go overlooked.

⁶⁰ We note that this implies that even while focal point blogs play a crucial mediating role, smaller blogs may sometimes have very substantial political impact by bringing information to the attention of focal blogs. For empirical evidence on the spread of information through the blogosphere, see Eytan Adar, Li Zhang, Lada A. Adamic and Rajan M. Lukose, “Implicit Structure and the Dynamics of Blogspace,” available at <http://www.hpl.hp.com/research/idl/papers/blogs/blogspace-draft.pdf> (checked July 19, 2004).

⁶¹ Matthew McCubbins and Thomas Schwartz, “Congressional Oversight Overlooked: Police Patrols versus Fire Alarms. *American Journal of Political Science* 2 (1984): 165-179.

obtain a “summary statistic” about the distribution of opinions on a given political issue. The mainstream political media – which some bloggers refer to as the “mediasphere” – can therefore act as a transmission belt between the blogosphere and politically powerful actors. Blogs therefore affect political debate by affecting the content of media reportage and commentary about politics. Just as the media can provide a collective interpretive frame for politicians, blogs can create a menu of interpretive frames for the media to appropriate.

This leads to another puzzle – *why* do members of the media read blogs? The next section addresses this issue.

The mediasphere and the blogosphere

There is strong evidence that media elites – editors, publishers, reporters, and columnists – consume political blogs. *New York Times* Managing Editor Bill Keller said in a November 2003 interview, “I look at the blogs... Sometimes I read something on a blog that makes me feel we screwed up.”⁶² Howard Kurtz, the most prominent media journalist in the United States, regularly quotes elite bloggers in his Media Notes Extra feature for the *Washington Post*.⁶³ *New York Times* columnist Paul Krugman gave a lengthy interview to one blog, in which he discussed the blogs that he read on a daily basis.⁶⁴ Other opinion columnists, including Michael Barone, Walter Shapiro, and Fareed Zakaria, have indicated that blogs form a part of their information-gathering activities. Prominent political reporters and editors at the *New York Times*, *Washington Post*, *Los Angeles Times*, ABC News, *New Yorker*, *Newsweek*, and *Time* have made similar statements.⁶⁵

Another indication of the connection between the political part of the blogosphere and mediasphere has been the extent to which individuals operating in one setting have crossed over into the other activity. The fact that many newspapers, networks, and magazines have set up their own blogs is clear evidence that media institutions are conscious of the form. Prominent commentators – such as Bruce Bartlett, Noam Chomsky, Gregg Easterbrook, and Amitai Etzioni – have tried their hand at weblogs.⁶⁶ As previously noted, bloggers have been hired to provide content for mainstream media publications. In March 2004, *The Washington Monthly* hired Kevin Drum – whose CalPundit blog was attracting over 1.2 million unique visits per month by February 2004 – and transferred his blog to their web site. *Slate* magazine transferred Mickey Kaus’

⁶² Quoted in Howard Kurtz, “Bill Keller’s Changing Times,” *Washington Post*, 24 November 2003, p. c1. Keller added, “A lot of times I read things that strike me as ill-tempered and ill-informed.”

⁶³ <http://www.washingtonpost.com/wp-dyn/nation/columns/kurtzhoward/>.

⁶⁴ Kevin Drum, “An Interview with Paul Krugman,” <http://www.calpundit.com/archives/002152.html>, 16 September 2003.

⁶⁵ Rachel Smolkin, “The Expanding Blogosphere,” *American Journalism Review* 14 (June/July 2004); George Packer, “The Revolution Will Not Be Blogged,” *Mother Jones* (May/June 2004); Jay Rosen, “There is an Orthodoxy to Our Thinking,” 29 July 2004, http://journalism.nyu.edu/pubzone/weblogs/pressthink/2004/07/29/edsall_blogs.html (accessed 11 August 2004); Bruce Bartlett, “Blog On,” National Review Online, 6 January 2003, http://www.nationalreview.com/script/printpage.asp?ref=nrof_bartlett/bartlett010603.asp (accessed 10 July 2004).

⁶⁶ See <http://www.trendmacro.com/a/talkingpoints/>, <http://blog.zmag.org/ttt/>, <http://www.tnr.com/easterbrook.mhtml>, and <http://www.amitai-notes.com/blog/> respectively.

blog to its online site more than a year before that. Other political content providers – such as *Slate*, *The American Prospect*, *The New Republic*, MSNBC, the *New York Times*, and the *Wall Street Journal* – have either published prominent bloggers or hired them as regular contributors.

Why has the political media devoted so much attention to the blogosphere? Based on our own experience as bloggers, our interactions with other bloggers and journalists, and the extant literature on weblogs, we offer four reasons for the links between the mediasphere and the blogosphere: material incentives, personal network ties, expertise, and speed.

Part of the growth in interest can be explained by material incentives. As media publications have divided their online content between free and paid material in an effort to boost subscription revenues, they have simultaneously expanded their free content to maintain web traffic. This free content has often taken the form of weblogs. For example, in early 2003 *The New Republic* decided to convert much of the online content that also appeared in the print version of the magazine to subscription access only. Over the course of the ensuing year, they simultaneously expanded their web content to include regular columns by scholar-bloggers, as well as four weblogs from TNR staffers.⁶⁷

Pre-existing social and professional ties between early bloggers and journalists also helps to explain the attention paid to the blogosphere. The first wave of political commentators to enter the blogosphere were journalists with close ties to mainstream media outlets.⁶⁸ Mickey Kaus wrote for *The New Republic* and *Newsweek* before starting *kausfiles.com*. Andrew Sullivan was an editor at *The New Republic* as well as a regular columnist for *The New York Times Magazine* prior to launching *AndrewSullivan.com*. Joshua Micah Marshall worked at *The American Prospect* and freelanced for several other political magazines prior to starting *TalkingPointsMemo.com*. All three writers command an impressive amount of links, traffic, and media mentions for their blogs.⁶⁹

These network ties between journalist-bloggers and those in the media were crucial to establishing trust in the new medium. In encountering the blogosphere, journalists were confronted with imperfect information regarding the accuracy of its participants. Markets with imperfect information about producer quality often fail to emerge, due to consumer wariness.⁷⁰ Social ties of kin or friendship can function to overcome fears of opportunism.⁷¹ Because many of the early political bloggers had

⁶⁷ Interviews with Noam Scheiber and Richard Just (online editors of *The New Republic*), 9 April 2004.

⁶⁸ In the late nineties, these blogs were often referred to as “me-zines.” The original idea behind them was to serve as an online advertisement for the writers’ wares.

⁶⁹ For traffic and link figures, see <http://www.blogstreet.com/biq100.html> and <http://www.truthlaidbear.com/ecosystem.php>.

⁷⁰ On the flaws of markets with imperfect information, see George Akerlof, “The Market for “Lemons”: Quality Uncertainty and the Market Mechanism,” *Quarterly Journal of Economics* 84 (August 1970): 488-500. In the case of the blogosphere, concerns about quality were warranted. During Operation Iraqi Freedom, blogger Sean-Paul Kelley received a great deal of media attention for his non-stop blogging and apparently extensive network of information sources. In April 2003, Kelley was discovered to have plagiarized many of his “exclusive” posts from Stratfor.com. See Daniel Forbes, “Noted War Blogger Cops to Copying,” *Wired*, 7 April 2003.

⁷¹ On the role that social networks play in such markets, see Mark Granovetter, “Economic Action and Social Structure: The Problem of Embeddedness,” *American Journal of Sociology* 91 (November 1985): 481-510; and Avner Greif, “Contract Enforceability and Economic Institutions in Early Trade: The Maghribi Traders’ Coalition,” *American Economic Review* 83 (June 1993): 525-548.

personal and professional ties to prominent journalists, columnists and editors, mainstream media outlets deemed them as reliable sources for both information and opinion.⁷² As Kaus, Sullivan, and Marshall linked to other bloggers, they signaled their belief in the quality of other blogs – and that trust spread to key parts of the mediasphere.

Another reason for the increase in dynamic density between the blogosphere and the mediasphere has been the expertise that bloggers can provide on substantive issues. By definition, general interest intermediaries in the media suffer a deficit of specialized, detailed knowledge. Blogs can serve as repositories of “local knowledge” for relevant policy issues or current event histories.⁷³ Over time, reporters can rely on these blogs when the issue in question emerges as a news topic again. Specialist blogs greatly reduce the search costs for journalists in acquiring information on a developing story. Specialty bloggers that promote their posts on salient topics have the potential to convert the information-gathering activities of “general interest” bloggers and journalists from high-coat police patrols to low-cost fire alarms.⁷⁴

Even specialized or trade publications rely on bloggers that specialize in the same topic. For example, numerous staffers at legal trade journals have stated that they rely on Howard Bashman’s blog on appellate jurisdiction, “How Appealing” as a source for both breaking legal news and for in-depth commentary on law and politics.⁷⁵ A senior reporter from American Lawyer Media said that Bashman’s blog is her home page and that she checks out the site “five or six times a day,” and that through Bashman’s blog, she was able to file one story a day earlier than she otherwise would have.⁷⁶ An editor at the American Bar Association’s journal relied on Bashman’s blog as a source for story ideas.⁷⁷ The reliance by legal journalists on Bashman’s blog led to a natural development – in April 2004, *Legal Affairs* magazine decided to host Bashman’s weblog.⁷⁸

Finally, bloggers have first-mover advantages in formulating opinions. The comparative advantage of blogs in political discourse is their low cost of real-time publication. Immediately following an event of political consequence – a presidential debate, a terrorist attack – bloggers have the ability to post their immediate reactions before other forms of media can respond. Beyond initial reactions, bloggers can also respond to other blog reactions before the mainstream media has time to react.⁷⁹ As Mickey Kaus points out:⁸⁰

[T]he virtue of speed isn't simply, or even primarily, that you can scoop the competition. It's that you can post something and provoke a quick response and counter-response, as well as research by readers. The collective brain works faster, firing with more synapses.

⁷² Smolkin, “The Expanding Blogosphere.”

⁷³ F.A. Hayek, “The Use of Knowledge in Society,” *American Economic Review* 35 (September 1945): 519-530.

⁷⁴ See McCubbins and Schwartz, “Congressional Oversight Overlooked: Police Patrols Versus Fire Alarms.”

⁷⁵ See also Tyler Cunningham, “Blawg fever,” *San Francisco Daily Journal*, 27 October 2003.

⁷⁶ E-mail correspondence with Shannon P. Duffy, American Lawyer Media, 24 September 2003.

⁷⁷ Confidential e-mail correspondence, 24 September 2003.

⁷⁸ <http://legalaffairs.org/howappealing/>.

⁷⁹ Speed also helps bloggers overcome a serious problem – inaccuracies. Most bloggers, when confronted with a factual error in their post, will make the correction quickly, reducing the negative externalities of such mistakes.

⁸⁰ Mickey Kaus, “The Case Against Editors,” *Slate*, 28 October 2003.

In theory, “faster” can mean “fast enough to have real-world consequences” that print journalism or even edited Web journalism can't have.

Another journalist concurred, “The editorial process of the blogs takes place *between and among* bloggers, in public, in real time, with fully annotated cross-links.”⁸¹

The rapidity of blogger interactions affects political communication in the mainstream media through agenda setting and framing effects. The agenda-setting role is clear – if a critical number of elite blogs raise a particular story, it can pique the interest of mainstream media outlets. This dynamic was clearly at work with the Lott episode. More recently, in July 2004 a passenger posted online a first-person account of suspicious activity by Syrian passengers on board a domestic flight.⁸² Her account was quickly picked up and debated by the blogosphere. Although there was vigorous disagreement over Jacobsen's interpretation of events, there was agreement that the story merited further inquiry. This wave of blogosphere attention led to mainstream media interest, including stories in National Public Radio and the *New York Times*.⁸³

Pundits and corporate actors have noted the blogosphere's collective ability to act as a leading indicator of future news coverage. Syndicated columnist Bruce Bartlett points out that, “Blogs have become a kind of early warning system for me, alerting me about things like Trent Lott's political problems days before it appeared in the conventional press.”⁸⁴ The Ford Motor Company's director of public affairs recently observed, “The real value of searching the net, including blogs, is that you get a live picture of what people are thinking about certain issues. It means that you can predict if there is going to be an issue that's going to grow and become something you need to respond to before it gets to the mainstream press.”⁸⁵

Scholars of political communication argue that the media can elevate issues and devise interpretive frames for them that shape the boundaries and content of political discourse and public opinion.⁸⁶ For complex issue areas, there are a plethora of possible debates and cleavages that can take place. The media – consciously or unconsciously – can socially construct focal points that frame the issue in a particular way.⁸⁷ This frame

⁸¹ Scott Rosenberg, “Much Ado About Blogging,” *Salon*, 10 May 2002.

⁸² Annie Jacobsen, “Terror in the Skies, Again?” *WomansWallStreet.com*, 14 July 2004. Accessed at http://www.womenswallstreet.com/WWS/article_landing.aspx?titleid=1&articleid=711, 21 July 2004.

⁸³ For blogosphere reaction, see Daniel Drezner, “What Does This Mean About Airline Security?” 16 July 2004. <http://www.danieldrezner.com/archives/001473.html> (accessed 16 July 2004); Joe Sharkey, “What Really Happened on Flight 327?” *New York Times*, 20 July 2004.

⁸⁴ Bartlett, “Blog On.”

⁸⁵ Quoted in Sean Hargrave, “The Blog Busters,” *The Guardian*, 9 August 2004.

⁸⁶ Thomas Nelson, Rosalee Clawson, and Zoe Oxley, “Media Framing of a Civil Liberties Conflict and Its Effect on Tolerance,” *American Political Science Review* 91 (September 1997): 567-583; David P. Fan et al, “Framing and the Public Agenda: Media Effects on the Importance of the Federal Budget Deficit,” *Political Communication* 15:2 (1998): 205-224. The precise power of the media framing remains a subject of debate. For background on this debate, see J.T. Klapper, *The Effects of Mass Communication* (Glencoe, IL: Free Press, 1960); Shanto Iyengar and Donald R. Kinder, *News That Matters* (Chicago: University of Chicago Press, 1987); and Stephen Ansolabehare, S., R. Behr, and Shanto Iyengar. *The Media Game: American Politics in the Television Age* (New York: Macmillan, 1993).

⁸⁷ For the sake of clarity, we stress that there is a very important difference between (a) focal point blogs and (b) the focal points created by blogs. Focal point blogs are those blogs which are salient, so that other bloggers and readers recognize them as providing a coordination solution to the game that they play with each other (bloggers seeking to attract readers; readers seeking to find interesting posts). However, blogs

serves to eliminate dimensions from an issue, making the topic easier to comprehend for the mass public.

If the mainstream media constructs focal points through which political actors must operate, the blogosphere has the capacity to construct focal points through which the media operates. As *Washington Post* journalist Thomas Edsall describes it, “We in journalism, there is an orthodoxy to our thinking. Blogs can ... break the ice and make it clear that there is something pretty strange or pretty unique or pretty interesting or pretty awful about something ... They ... open up a lot of doors.”⁸⁸ As media outlets frame breaking and ongoing stories, they will rely on salient weblogs as sources for opinion and information. If these blogs generate a consensus about a particular issue – whether Trent Lott’s statements on Strom Thurmond’s birthday party were racist, for example – it acts as a barometer of interest and opinion on the issue. The media will be affected by that consensus in the same way that the mass public is affected by the media. Even if the blogosphere fails to generate a substantive consensus, they may generate a consensus on discourse and interest. Through their interaction, blogs from different sides of the political spectrum can generate clear faultlines of debate on policy issues. Furthermore, if blogs highlight an issue overlooked by the mediasphere, they can push that issue into the media spotlight – even if there is disagreement over interpretation. The skewed distribution of the blogosphere described in the previous section makes it easier for the media to pick up the collective beliefs of the blogosphere. Like general readers, journalists who are interested in blogs have a clear interest in minimizing their search costs. Because an overwhelming fraction of web traffic and web links cluster around the most popular political blogs, media representatives have a clear incentive to concentrate on those sites if they wish to garner evidence about the general state of opinion in the blogosphere opinion. Thus, the top five or ten blogs can function as a summary statistic for journalists. As described by Thomas Edsall, “if you just do a few of these [blogs], one advantage is they link to each other so much, often if something is good, you’re going to find out about it.”⁸⁹

These hypotheses receive tentative support from an online survey conducted by the authors between September 2003 and January 2004, in which media employees were asked to provide information about the blogs that they read. 140 editors, reporters, columnists and publishers responded, ranging from “elite” media outlets like the *New York Times* and ABC News to rural publications with less than 10,000 readers. Respondents were asked to name up to three blogs that they read frequently. Collectively, over 125 blogs were cited by these respondents as among the blogs that they read.⁹⁰ However, the top ten blogs were responsible for more than 54% of all the citations.

themselves may create focal points in wider public debates by providing interpretive frames, and limiting the dimension of particular issues. Although, as we argue, the two are causally connected, they are conceptually quite distinct from each other – they involve different games.

⁸⁸ Interview with Thomas Edsall, conducted by Jay Rosen July 28, 2004. Available at <http://www.nyu.edu/gsas/dept/journal/audio/edsallblogsone.mp3>, checked July 11, 2004.

⁸⁹ Ibid.

⁹⁰ The raw data for this survey can be accessed at <http://www.danieldrezner.com/research/Blogsurveypublic.xls>. See also Drezner, “Which Blogs are Read by the Media?” 31 May 2004, <http://www.danieldrezner.com/archives/001321.html>.

Among “elite” media respondents,⁹¹ the skewness was even more pronounced. The top ten blogs were responsible for over 74% of the citations; the top five alone were responsible for more than 56% of the mentions. Consistent with the argument made previously about network ties, Sullivan, Kaus, and Marshall were among the top five blogs for both categories.

We caution that these findings are only indicative – our sample was very likely unrepresentative,⁹² and the number of respondents was too small to allow us to gather statistically significant results for most interesting potential empirical relationships. Nonetheless, they do at least provide an initial mapping of the relevant empirical relationships that may serve to generate hypotheses to be tested in future research. Furthermore, as an external validity check, a Nexis search was conducted of mainstream media mentions of top blogs/bloggers during the same time period as the survey was conducted (see Tables 3 and 4). The data provides an external validity check of the survey results; the media mentions are strongly correlated with the number of media readers of a particular blog.⁹³

The constraints on blog influence

The previous section delineated some important causal mechanisms through which the blogosphere can influence American politics. However, while the Lott episode demonstrates the existence of blogosphere influence on the body politic, the extent of those effects remain open to question. Although the blogosphere possesses the twin comparative advantages of speed and expertise, it lack many other assets useful in politics.

There are two important constraints on the blogosphere’s influence. The first is the fact that all bloggers – even those at the top of the hierarchy – have limited resources and time at their disposal. Indeed, some bloggers complain of “burnout” and have given up blogging altogether.⁹⁴ For the moment, blogging remains a largely voluntary activity.⁹⁵ The monetary compensation involved provides only limited resources for wide-ranging investigative journalism. Because of these resource constraints, it is simply

⁹¹ Respondents were coded as “elite” based on their employer. They included prominent newspapers (*The New York Times*, *Wall Street Journal*, *Christian Science Monitor*), news networks (ABC, CBS, CNN), wire services (Associated Press, Bloomberg, Reuters), and prominent opinion magazines (*The New Republic*, *Weekly Standard*, *National Review*, *Time*, *Newsweek*, *Foreign Affairs*). Of the 140 respondents, 33 were from elite outlets.

⁹² Journalists were solicited to respond through announcements on a variety of political blogsites leading to an obvious risk of sample bias. We have tried to minimize this bias by publicizing the survey on both highly linked and less highly linked blogs, that were situated on both the left and right of the political spectrum, but do not claim by any means to have eliminated it.

⁹³ For the top ten bloggers, the correlation coefficient is .84 for the general media survey, and .94 in the elite media survey.

⁹⁴ David Terdiman, “Bloggers Suffer Burnout,” *Wired*, 8 July 2004.

http://www.wired.com/news/culture/0,1284,64088,00.html?tw=wn_1culthead (Accessed 20 July 2004).

⁹⁵ This may change, as over the past year advertising on blogs has increased dramatically. The top bloggers are now earning thousands of dollars per month. See “Golden Blogs,” the *Economist*, 14 April 2003, and Maureen Ryan, “It’s officially a living: Bloggers find ad boom can pay their rent,” *The Chicago Tribune*, 12 July 2004.

impossible for top bloggers to be able to comment on or link to news stories about every issue up for political debate.

For example, one of the most prominent blogger in terms of links and traffic is Glenn Reynolds' InstaPundit.⁹⁶ One reason for his high ranking is his prolific output; in less than three years, he has written more than 16,000 blog posts on a welter of topics. However, Reynolds' is also a full-time law professor at the University of Tennessee.⁹⁷ He has written repeatedly that readers should not assume that he will be either able or willing to blog about all topics under the sun. In October 2003, he wrote:⁹⁸

I don't have much trouble resisting people's efforts to bully me into advancing their agendas. What worries me more, in a way, are the *friendly* emails from people saying that they get all their news from InstaPundit.

Don't do that! It's "InstaPundit," not "InstaNews Service." And this is... an *amateur* activity. I don't even get to blog all the stuff that interests me... much less stuff that's important, but that doesn't interest me.

What you get here -- as with any blog -- is my idiosyncratic selection of things that interest me, as I have time to note them, with my own idiosyncratic comments. What's more, to the (large) extent that it's shaped by my effort to play up stories that Big Media are ignoring, it's even more idiosyncratic. I hope you like it, but making it your sole source of news is probably not a good idea.

Eugene Volokh, the prominent blogger/law professor, makes a similar point:⁹⁹

I appreciate being mistaken for a professional pundit, which is to say someone whose job it is to opine on various matters that are in the news. But as it happens, I'm an amateur pundit, which is to say someone whose hobby it is to opine on various matters that are in the news. One advantage of being an amateur pundit is that I can choose my hobby-horses.

The second constraint is that powerful actors in politics and political communications have already moved down the learning curve in response to weblogs. Astute political actors can read blogs as easily as media professionals, and use that information to predict the direction of future news cycles. This also gives them the ability to develop strategies to counter or blunt the influence of blogs before media groundswells develop.

For example, consider the case of Pennsylvania Republican Senator Rick Santorum, chairman of the GOP conference in the Senate and third in his party's leadership structure. Less than six months after Trent Lott resigned, Santorum gave an interview to an Associated Press reporter in which he explicitly equated homosexuality with bestiality.¹⁰⁰ This prompted condemnation from across the political spectrum of the

⁹⁶ <http://www.instpundit.com>.

⁹⁷ <http://instapundit.com/about.php>.

⁹⁸ Glenn Reynolds, "Earlier I mentioned this post," Instapundit.com, 1 October 2003. Available at <http://instapundit.com/archives/011775.php>.

⁹⁹ Eugene Volokh, "The Fence," 30 September 2003. Available at http://volokh.com/2003_09_28_volokh_archive.html#106489475953702828.

¹⁰⁰ Associated Press, "Sen. Rick Santorum's comments on homosexuality in an AP interview," 22 April 2003.

blogosphere, including repeated mentions by top-tier bloggers such as Glenn Reynolds, Andrew Sullivan, and Joshua Micah Marshall.¹⁰¹ However, Santorum was not asked to resign his leadership position. President Bush intervened at an early stage of the news cycle to issue a statement expressing support for Santorum. The statement simultaneously made it clear that this was because his interpretation of Santorum's statement was more benign than other interpretations.¹⁰² By creating an alternative framing of the issues at an early stage, political elites were able to blunt criticism from bloggers far more successfully than in the Trent Lott case.

We predict that as blogs become a more established feature on the political landscape, politicians and other interested parties will become more adept at responding to them, and, where they believe it necessary, co-opting them. To the extent that blogs become more politically influential, we may expect them to become more directly integrated into 'politics as usual,' losing some of their flavor of novelty and immediacy in the process. The most recent evidence of co-optation was the decision by both major parties to credential some bloggers as journalists for their nominating conventions.¹⁰³

One final possible constraint on the blogosphere's influence is the extent to which blogs self-segregate in terms of political views. Over the past five years, a series of prominent scholars have warned that the Internet will have a corrosive effect on the body politic. In 2000, Robert Putnam warned about the emergence of "cyberapartheid" and "cyberbalkanization", observing:¹⁰⁴

"The political culture of the Internet, at least in its early stages, is astringently libertarian, and in some respects cyberspace represents a Hobbesian state of nature, not a Lockean one."

Other social analysts have sounded similar alarms.¹⁰⁵ In 2001, Cass Sunstein echoed Putnam's warning:¹⁰⁶

"New technologies, emphatically including the Internet, are dramatically increasing people's ability to hear echoes of their own voices and to wall themselves off from others.... In a system in which each person can "customize" his own communications universe, there is a risk that people will make choices that generate too little information, at least to the extent that individual choices are not made with reference to their social benefits."

¹⁰¹ For a collection of salient links, go to <http://www.danieldrezner.com/archives/000163.html>.

¹⁰² White House Press Secretary Ari Fleischer said, "The president believes the senator is an inclusive man." CBS News, "Bush Backs Santorum," 25 April 2003. Available at <http://www.cbsnews.com/stories/2003/04/29/politics/main551493.shtml>.

¹⁰³ Brian Faler, "Parties to Allow Bloggers to Cover Conventions for First Time," *Washington Post*, 6 July 2005.

¹⁰⁴ Robert Putnam, *Bowling Alone* (New York: Simon and Schuster, 2000), p. 173. On the Internet's social capital, see pp. 169-180.

¹⁰⁵ Manuel Castells, *The Rise of the Network Society* (Cambridge: Blackwell Books, 1996); Marshall Van Alstyne and Erik Brynjolfsson, "Electronic communities: Global Village or Cyberbalkanization?" Working paper, Massachusetts Institute for Technology, Cambridge, MA, March 1997; Bruce Bimber, "The Internet and Political Transformation: Populism, Community, and Accelerated Pluralism," *Polity* 31 (1998): 133-160; Andrew Shapiro and Richard Leone, *The Control Revolution* (New York: Public Affairs, 1999).

¹⁰⁶ Cass Sunstein, *republic.com* (Princeton: Princeton University Press, 2001), p. 49.

Some social commentators have argued that blogs represent only the most recent example of cyberbalkanization. Most recently, the prominent social theorist Alan Wolfe has partially attributed the increasingly partisan tone of US political debate to blogs.¹⁰⁷ Many bloggers themselves have expressed concern about the phenomenon – though they call it “cocooning” rather than cyberbalkanization.¹⁰⁸ The limited resources and interests of many bloggers may reinforce this problem – partisan bloggers very frequently focus on political events that reinforce their (and their readers’) priors, ignoring those that might undermine them. Such segregation might potentially undercut the informational advantages that accrue to the blogosphere as a diverse network of opinions.¹⁰⁹ It would also threaten to sever some links between the blogosphere and the mediasphere. As *New York Times* public editor Daniel Okrent recently observed, “In some instances, some [blogs] are so partisan – even though they’re right in many instances – they’re immediately discredited within the newsroom because of their partisanship.”¹¹⁰

However, while the concerns expressed by Putnam and Sunstein are reasonable ones, it remains an open question whether blogs suffer from cyberapartheid. Indeed, Yale law professor (and blogger) Jack Balkin argues that because blogs are partly defined by their hyperlinks and because bloggers systematically comment on each other, such segregation is unlikely.¹¹¹

[M]ost bloggers who write about political subjects cannot avoid addressing (and, more importantly, linking to) arguments made by people with different views. The reason is that much of the blogosphere is devoted to criticizing what other people have to say. It's hard to argue with what the folks at National Review Online or Salon are saying unless you go read their articles, and, in writing a post about them, you will almost always either quote or link to the article, or both. Ditto for people who criticize Glenn Reynolds, Andrew Sullivan, or Kos, or Atrios. If you don't like what Glenn said about Iraq, you quote a bit of his posting, link to it, and then make fun of him. These links are the most important way that people travel on the Web from one view to its opposite. (And linking also produces a good check on criticism because you can actually go and read what the person being criticized has said.)....

Nevertheless, one might object, this argument is premised on the idea that the blogosphere has customs of linking that encourage give and take. What is to guarantee that these customs will continue? Obviously bloggers could give up their customs, and stop linking to each other. But I doubt this will happen; the customs make sense given the way the technology works. And worrying about whether people will or won't continue to link absent a government regulatory apparatus that encourages linking completely misses the point about how Internet speech works: The fact that these customs developed says a lot about the health and vibrancy and pluralism of the public sphere in cyberspace.

¹⁰⁷ Alan Wolfe, “The New Pamphleteers,” *New York Times*, July 11, 2004.

¹⁰⁸ Daniel Drezner, “Is civility an endangered species in the blogosphere?” 6 July 2004, archived at <http://www.danieldrezner.com/archives/001414.html>.

¹⁰⁹ On the ways in which homogeneity can reduce the quality of information, see Irving Janis, *Groupthink* (Boston: Houghton Mifflin, 1982), and James Surowiecki, *The Wisdom of Crowds* (New York: Doubleday, 2004).

¹¹⁰ Quoted in Glaser, “To Their Surprise, Bloggers are Force for Change in Big Media.”

¹¹¹ Jack Balkin, “What I Learned About Blogging in a Year,” 23 January 2004. http://balkin.blogspot.com/2004_01_18_balkin_archive.html#107480769112109137 (accessed 20 July 2004).

Conclusions

In this paper, we have sought to provide an answer to a perplexing question for political scientists – why do blogs sometimes have real political consequences, given the relatively low number of blog readers in the overall population? Our proposed answer to this question is that blogs may frame political debates and create focal points for the media as a whole. Because certain opinion-makers within the media take blogs seriously, they can have a much wider impact on politics. In setting out this answer, we have advanced arguments about why the media takes account of blogs, as well as some tentative arguments regarding the wider consequences of blogs for the broad contours of debate over US politics. Finally, we have provided some important empirical evidence regarding the structure of the political blogosphere, and how this structure makes certain blogs much more salient than others.

Our findings are a beginning, not an end. The political consequences of blogs are unlikely to be limited to the particular mechanisms that we have explored. Important research remains to be done, for example, on the consequences of blogs for political mobilization, and for fundraising.¹¹² Debates over politics within the blogosphere provides important evidence that is relevant to current debates about democratic deliberation. More specifically, we note the need for future research that can better test hypotheses about the specific blogs that media professionals read, and how they filter information.

As we have suggested in the penultimate section of this article, there are important limits to the political influence of blogs. They are less important because of their direct effects on politics than their indirect ones – they influence important actors within mainstream media who in turn frame issues for a wider public. We see no reasons to expect that this will change in the foreseeable future. Indeed, we expect blogs to lose some of their disruptive impact as politicians and others learn to take better account of them.

Even so, blogs are important to politics, and are likely to remain so. Furthermore, they present a quite extraordinary body of research material for social scientists. Understanding these linkages may require political scientists to develop unfamiliar research skills and statistical techniques. However, as this article demonstrates, the rewards for so doing may be very substantial indeed.

¹¹² Blogs appear to have had a significant effect on fundraising, and furthermore, according to media reports, have substantially favoured Democratic fundraising efforts over Republican ones.

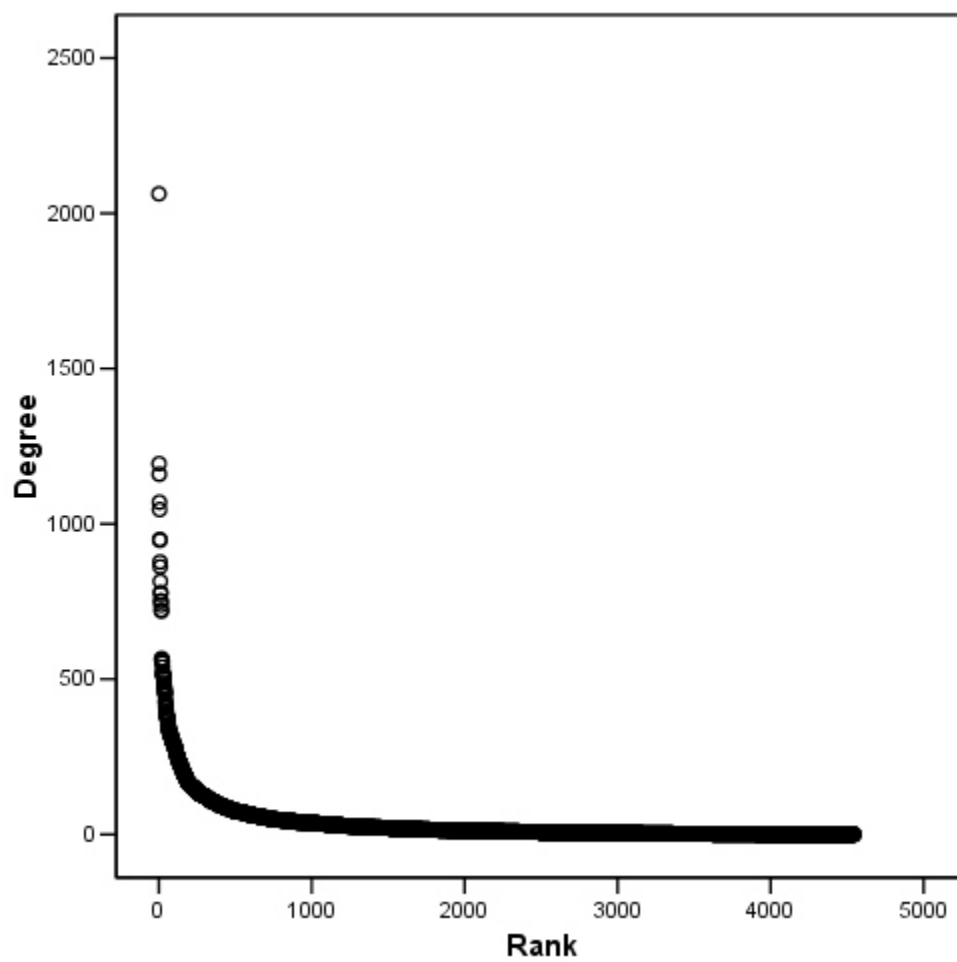


Figure 1.
Skewedness of links in the blogosphere. Vertical axis: Degree (number of incoming links); horizontal axis: rank of blog in ecosystem.

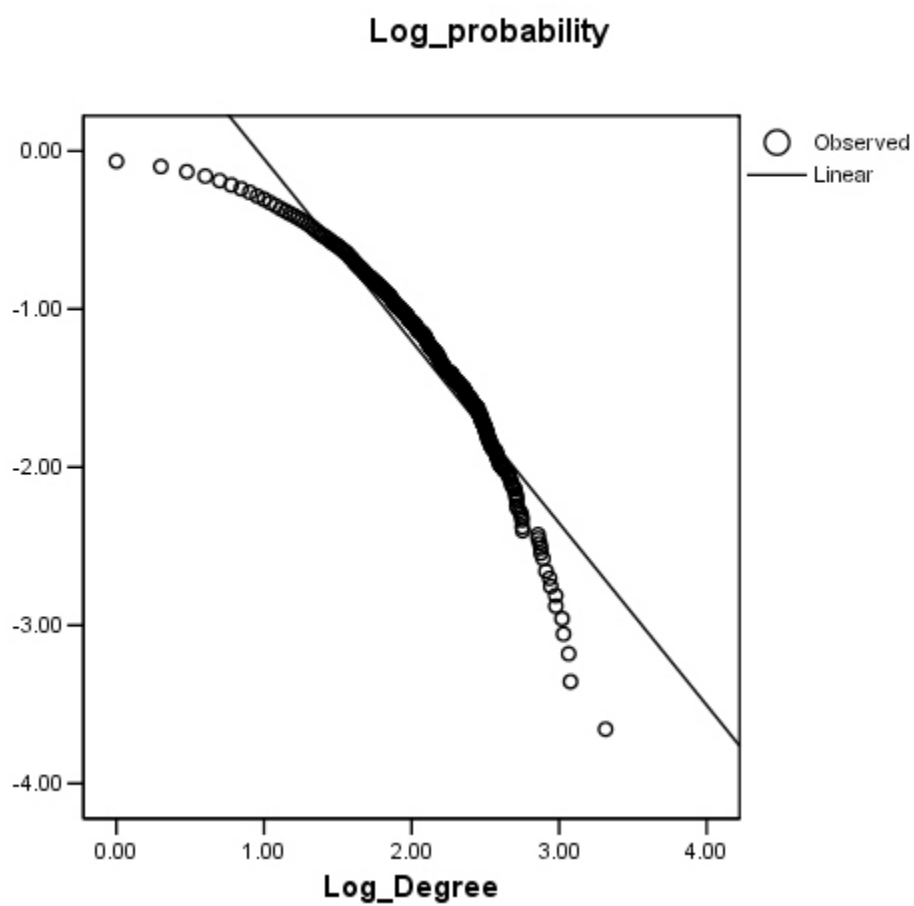


Figure 2 – Log-log relationship between $P[K \geq k]$ (vertical axis) and degree (horizontal axis).

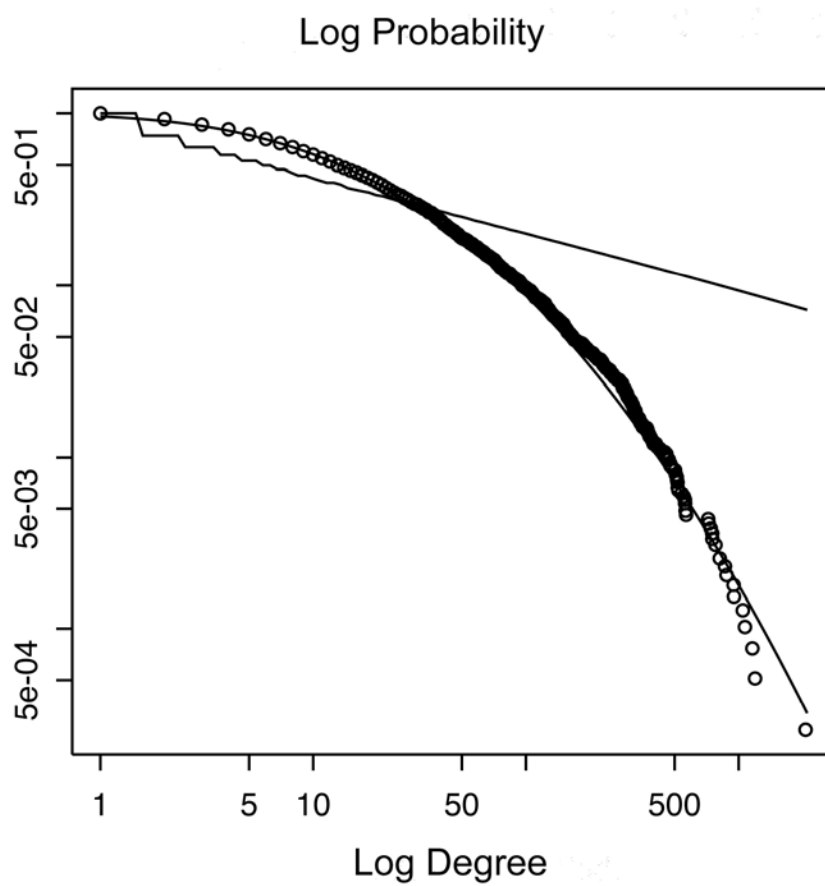


Figure 3 – Fits to Pareto and lognormal distribution.

TABLE 3
BLOGS READ BY THE MEDIA

Blog author (blog title)	Number of media readers	Number of media mentions
Andrew Sullivan (Daily Dish)	59	78
Glenn Reynolds (InstaPundit)	43	11
Mickey Kaus (Kausfiles)	23	16
National Review's Corner	20	n/a
Joshua Micah Marshall (Talking Point Memo)	18	12
James Romanesko (Media News)	14	13
Atrios (Eschaton)	10	3
Daniel W. Drezner (danieldrezner.com)	9	3
Eugene Volokh (The Volokh Conspiracy)	7	8
Cory Doctorow (Boing Boing)	6	4
James Lileks (The Bleat)	6	1

TABLE 4
BLOGS READ BY THE ELITE MEDIA

Blogger (blog title)	Number of elite media readers	Number of media mentions
Andrew Sullivan (Daily Dish)	22	78
Glenn Reynolds (InstaPundit)	11	11
Mickey Kaus (Kausfiles)	7	16
Joshua Micah Marshall (Talking Point Memo)	5	12
National Review's Corner	4	n/a
Daniel W. Drezner (danieldrezner.com)	4	3
James Romanesko (Media News)	4	13
J. Bradford DeLong (Semi-Daily Journal)	3	4
Eugene Volokh (The Volokh Conspiracy)	3	8
Atrios (Eschaton)	2	3
Markos Moulitsas Zúniga (Daily Kos)	2	4
Howard Bashman (How Appealing)	2	1