

Abstract

Discussions of the political effects of the Internet and networked discourse tend to presume consistent patterns of technological adoption and use within a given society. Consistent with this assumption, previous empirical studies of the United States political blogosphere have found evidence that the left and right are relatively symmetric in terms of various forms of linking behavior despite their ideological polarization. In this paper, we revisit these findings by comparing the practices of discursive production and participation among top U.S. political blogs on the left, right, and center during Summer, 2008. Based on qualitative coding of the top 155 political blogs, our results reveal significant cross-ideological variations along several important dimensions. Notably, we find evidence of an association between ideological affiliation and the technologies, institutions, and practices of participation across political blogs. Sites on the left adopt more participatory technical platforms; are comprised of significantly fewer sole-authored sites; include user blogs; maintain more fluid boundaries between secondary and primary content; include longer narrative and discussion posts; and (among the top half of the blogs in our sample) more often use blogs as platforms for mobilization as well as discursive production.

Our findings speak to two major theoretical debates on the political effects of the Internet and networked discourse. First, the variations we observe between the left and right wings of the U.S. political blogosphere provide insights into how varied patterns of technological adoption and use within a single society may produce distinct effects on democracy and the public sphere. Secondly, our study suggests that the prevailing techniques of domain-based link analysis used to study the political blogosphere to date may have fundamental limitations. The fact that we find evidence of significant cross-ideological variation when we compare intra-domain attributes of political blogs demonstrates that link analysis studies have obscured both the diversity of participatory affordances online as well as the primary mechanisms by which the networked public sphere alters democratic participation relative to the mass mediated public sphere.

Introduction

Following the historic election of Barack Obama to the presidency of the United States, few will deny the importance of studying the effect of the Internet on politics and democracy. Judged in its immediate aftermath, the Obama campaign seems likely to do for the political centrality of the Internet what the Roosevelt presidency did for radio, or the Nixon-Kennedy debates for television. Understanding the effect of the Internet on democracy involves two distinct inquiries. The first asks how the Internet affects democratic practice: participation, deliberation, mobilization, and collective action aimed at political outcomes. The second involves the degree to which technology interacts with the forms of knowledge production in a society. In this paper, we contribute to both of these lines of inquiry through an empirical analysis of discursive practices in the United States political blogosphere.

Prior empirical studies of the United States political blogosphere have found evidence that the left and right are relatively symmetric despite their ideological polarization (Adamic & Glance, 2005, Hindman, 2008, Hargittai, Gallo & Kane, 2008). In this study, we set out to develop measures to analyze more closely the practices *within blogs*. In order test for differences at this level, we created and applied a qualitative coding scheme to assess the technologies, practices, and discursive structures of the top 155 U.S. political blogs in the summer of 2008. We then compared the results of our coding across the left, right, and center of the political spectrum, revealing cross-ideological variations along several previously unexamined dimensions, all of which are central to the structure of networked discourse.

Our study speaks to two major debates. The first is an old debate about the level of

determinism in the relationship between technology and the structure of the public sphere (McLuhan, 1964; Starr, 2005). Past research on political blogs would appear to support a determinist conclusion through the symmetric patterns found across political ideologies (Adamic & Glance, 2005; Hindman, 2008; Hargittai et al.,, 2008). We revisit this claim in light of the ongoing evolution of the blogosphere five years after it emerged as a coherent space of political engagement and debate.

The second major debate to which our study speaks is the debate over the effects of the Internet on the networked public sphere. Here, our analysis investigates whether link analysis, the main empirical technique used to map the public sphere to date, has had certain limitations. Prior studies based on link analysis tended to see the left and right wings of the blogosphere as largely symmetric, with marginal differences in the linking practices: in particular, blogs on the right seemed to link to other blogs slightly more often than did blogs on the left (Adamic & Glance, 2005; Benkler, 2006; Hindman, 2008; Hargittai et al., 2008). Our study, however, asks whether the two wings of the political blogosphere vary along dimensions that are central to the most interesting questions about the networked public sphere: who is enabled to speak, who can be heard, and to what ends. Our methodology captures a layer of nuance unavailable to previous studies based on link analysis. For example, these earlier studies have counted DailyKos.com and Instapundit.com each as a single, highly connected node in a graph. Doing this masks the fundamental difference between how these two visible blogs function as discursive platforms. Instapundit is a single person, Glenn Reynolds, posting short one-liners and linking to external sites, with minimal possibility for contributions from other users; DailyKos is a site with over 160,000 registered users, over 10,000 active users, dozens of substantial editorial-style

contributors and editors, and a flow of daily writing from hundreds of participants (DailyKos.com). Link analysis studies have treated both sites as the same phenomenon: a single node with a very large number of in-links and out-links.

While these two top sites are selected for dramatic illustration purposes only, our methodology and sample, the largest examined to date, enables us to determine whether or not they are outliers. While we cannot answer the seemingly perennial question of whether the networked public sphere is polarized and fragmented, we can begin to ask and answer more fine grained questions: such as what elements in the networked public sphere improve or undermine participation; and how participatory sites differ from non-participatory sites. In addition, we investigate whether the already-mythical Obama online campaign, while extremely well-run in its own right, may have capitalized on immanent practices already present in the left wing of the blogosphere generally. Our findings also provide insights into how, despite access to the same technologies, different patterns of technological adoption and use within a single society may produce distinct effects on democracy and the shape of the public sphere.

Background and Literature Review

Analysis of the effects of the Internet on democracy dates back to early 1990s, a time of significant utopianism. Nowhere is this captured better than in the Supreme Court's paean to the Net: "Any person or organization with a computer connected to the Internet can "publish" information...Through the use of chat rooms, any person with a phone line can become a town crier with a voice that resonates farther than it could from any soapbox. Through the use of Web pages, mail exploders, and newsgroups, the same individual can become a pamphleteer" (Reno

v. ACLU 1997). Nicholas Negroponte, at that time, was touting the benefits of the knowledge we would seamlessly acquire, coining the metaphor the "Daily Me" to capture the breadth and precision of information collection we would be able to teach our computers to perform for us (Negroponte, 1995). Fairly soon thereafter, however, concerns about the excesses of the Internet found voice in the skeptical critique of Cass Sunstein (2002), who flipped Negroponte's "Daily Me" on its head, arguing that it would lead to fragmentation and polarization, and the destruction of the possibility of common discourse in a shared public sphere. This first generation of arguments was based largely on anecdotal evidence. Beginning in 2001-2002, scholars began to apply link analysis and graph theory to question the effects of the Internet on democracy, and in particular to two questions: does the Internet increase participation, and does the Internet increase deliberation? The primary argument against the claim that the Internet enhanced participation, or allowed anyone to be a pamphleteer, was that the power law distribution of links into sites prevented all but a very few sites from being observed. According to this view, you can talk, but no one will hear you (Barabási, 2003; Hindman, 2008). On the other hand, in recent articles, (Drezner & Farrell, 2008 and Lawrence, Sides & Farrell, 2010), Henry Farrell and collaborators have made the empirical observation that blog readers are particularly "activated" readers, and in surveys report greater degrees of political participation. Interpreting thenavailable link analysis data, Benkler (2006) argued that participation increased to the extent that individuals could contribute to debates directly, or through someone they know directly. By contributing to blogs that are part of tightly clustered communities of interest. Benkler claims that less well-known individuals can attract attention from ever-larger attention clusters and communities. Wallsten's analysis of the role of the blogosphere in agenda setting during the 2004 campaign provides additional empirical support for this claim (Wallsten, 2007).² Hindman (2008) countered these arguments with empirical claims that the overall size of the political public sphere was negligible, and that the leading voices in the blogosphere were few and as elitist as the most exclusive editorial pages of the country's leading newspapers. The claim that the Internet improved deliberation, as opposed to participation, was never forcefully made, but Sunstein (2000; 2007) has repeatedly emphasized the risk of the Internet undermining deliberation. Adamic & Glance (2005) claimed to support this hypothesis with their finding that only one in six links at the top of the left and right blogospheres linked across the ideological divide. Whether linking across the divide in one out of six cases should be interpreted as evidence of polarization and fragmentation, or of actual continuous discourse, was disputed by Benkler (2006). In addition, the only extensive link analysis coupled with content analysis done to date (Hargittai et al., 2008) showed that, of the links across the divide, many involved substantive argument and conversations, and that the two sides of the blogosphere did not appear to exhibit greater insularity and "polarization" over time.

Throughout this period, however, studies shared a questionable interpretive-theoretical approach. First, they treated the domain space of all blogs as comprised of homogeneous units of analysis, and, using this framework, found that the left and right wings of the blogosphere were largely symmetric and embodied uniform practices. One exception to this rule was a report by Bowers & Stoller (2005), two prominent members of the left blogosphere, who embraced a more dichotomous view of left and right wing blogs. On the basis of personal observation and experience, the authors argue that the elite blogs on the right reproduced an integrated, top-down approach to political messaging that reinforced off-line communities and organizations, whereas

elite left-wing blogs took a more participatory approach to building new political communities of interest and action (Bowers & Stoller, 2005: 4-5). However, the report neither engaged nor infiltrated the academic debates about the networked public sphere. As a result, the empirical foundations of the "symmetric blogospheres" argument has remained unchallenged. More recently, Kerbel's (2009) work on the netroots has revived this argument. Nevertheless, empirical evidence to support the view that the left and right blogospheres vary remains in short supply.

Analyzing the graph structure of blogs as a way of understanding public debate entailed interpreting blog domains as discrete speakers, and links across domains as communicative acts. The standard approach has been to depict each blog domain (for example, http://www.hotair.com or http://www.mydd.com) as a node in the graph that represents the networked public sphere; and to treat inter-domain links as characterizing (a) attention to statements and (b) conversational moves. Thus, a low link count into the blog domain necessarily means low attention levels to statements made on it. Only links into domains, in this approach, counts as attending to what is said there. Internal attention among users of the same blog did not count, because it was not counted. This, of necessity, overlooks the actual discrete communications, like the blog post itself, comment, or forum thread, and any actual discrete speakers—blog users—who congregate in a single blog domain. As our study shows, looking at the level of the blog, one finds a widely diverse set of discursive practices.

In effect, the resolution of the standard tools used in these prior studies was too low to show the actual practice and diversity of the networked public sphere. The importance of the level of resolution is shown most clearly in Hargittai et al. (2008). Their link analysis confirms the same pattern across the political divide as was revealed in prior studies, but they then use

content analysis to show that the prior interpretations of this linking pattern—polarization and fragmentation—is false. By increasing the resolution—analyzing the content of the actual statements linked to—they showed that many statements across the political divide are substantive, and that positions expressed on the left and the right have not become more extreme over time. We now extend that methodological critique of link analysis by looking more closely at the entire picture of the networked public sphere, as presented by domain-based link analysis and unmodified by closer observation of within-domain practices and statements. In doing so, we investigate whether studies grounded in link analysis alone may have obscured both the diversity of participatory affordances online as well as the primary mechanisms by which the networked public sphere increases or decreases democratic participation relative to the mass mediated public sphere.

One consequence of the low resolution has been that prior studies portrayed the left and right wing blogospheres as mirroring each other in all material respects. While Adamic & Glance (2005) found that right wing bloggers linked to each other, to external sources, and across the divide more than the left-wing bloggers, the two sides of the blogosphere did not differ much. As we show here, treating each blog as (more or less) one node has masked important differences across the political divide. The implications of treating either the blog or the domain as a single, homogeneous "speaker" for purposes of interpreting the findings is nowhere clearer than in Hindman's (2008) argument about the replication of media elitism in the blogosphere. Based on an analysis of 75 top bloggers (the lead author of a site, where Markos Moulitsas stands for DailyKos.com alongside Glenn Reynolds of Instapundit.com), Hindman argues that blogs are written by authors who are at least as elite as the op-ed columnists of the leading newspapers in

terms of educational credentials, professional or technical background, and the fact that they are disproportionately white men. Enhanced participation in the networked public sphere is, according to this view, a myth (Hindman, 2008). As we said in the introduction, any method that treats a platform hosting substantive contributions from thousands of users daily as an identical unit of analysis to a site authored by a single individual with minimal contributions from readers misses a core attribute of blogosphere discourse.

Our present study does not shed light on the question of the quality of deliberation or the concern with polarization in online discourse. But those cannot alone be the touchstones of the nature of the networked public sphere. Concern with "polarization" comes out of a particular democratic theory that emphasizes deliberation, or the capacity to attend respectfully to the arguments of others. The foundational question for a wider range of democratic theories is who has the opportunity to be heard at all, and to form a sufficient level of coherence around an issue to turn it into a credible item on a society's political agenda (Benkler, 2006). Our research has substantial implications for these questions of participation: first, in terms of the capacity to be heard in a space or context in which one's views can be taken up by many others, and worked into a coherent position with a credible backing of a community of interest sufficient to stake a claim on the public agenda; and second, in terms of the capacity for practical mobilization and organization for action. To the extent that one holds a view of democracy that is not exclusively focused on deliberation, but is oriented toward recognizing the diversity of views in society and the importance of political action, affordances that allow interest groups to meet, discuss and develop their own agendas, and then coalesce around them and convert them into public action, enhance democracy. To the extent one takes a view that participation can be squelched by

existing structures of political, economic, and cultural power, pathways around these blockages support effective participation by people who, in the past, were excluded from setting the public agenda. The creation of such pathways improves the openness of the public sphere to views and agenda setting efforts outside the traditional sources of discursive and cultural power. If one holds a view that democracy entails the ability to speak publicly and to a group of potential political allies, to crystallize a common position, and to organize for action, then it is critical to investigate whether the Internet can be used to enhance those aspects of democratic participation.³

Our study also speaks to an older debate in communications theory: the degree of determinism with which a communications technology affects how knowledge is produced, controlled, and used in a society. Media determinism, the view that a given technology has strong characteristics that deterministically structure its use, is anchored in Marshall McLuhan's (1964) work, and its centrality to structures of political power and authority in the work of Harold Innis (1951). While few academics today subscribe to McLuhan's strong-form deterministic view, it continues to exert influence in popular and non-academic policy circles. More common is a range of views from "soft" determinism to more thoroughgoing institutionalism. By "soft" determinism we mean scholarship that emphasizes how the technical affordances and constraints of a technology affect its likely patterns of use, interacting with, sometimes even shaping, other forces that structure discourse in a given period (Innis, 1951; Eisenstein, 1979; Beniger, 1986). By institutionalism we mean claims that emphasize the legal-political decisions that surround the use of a technology of communication (McChesney, 1993; Starr, 2005). The division is clear in theory, but few today, including those who emphasize

institutional explanations, hold a simple single-cause view of either form, and a large body of work focuses on the interplay and mutual shaping of technological, political, organizational, and cultural forms (Habermas, 1962; Barnouw, 1966; Winner, 1986; Castells, 1996; Benkler, 2006).

In practice, a more complex relationship may characterize the emergence of a particular technology, its adoption patterns, and the political-theoretical implications of its actual use. The technology in this case, the weblog, offers a wide range of flexible affordances, rather than constraining to a particular set of uses; and it is implemented in a legal framework that offers it wide berth, without determining or substantially narrowing its uses. Likewise, the organizational forms for control of the technology do not tend to constrain its use. All these historical facts about the way the Internet has been deployed and adopted are contingent, and susceptible to challenge and change (Benkler, 2006). Nevertheless, they characterize the actual state of affairs in the 1990s and 2000s; and this state of affairs left the technological and institutional frameworks relatively open. This study helps us to see whether the networked public sphere has in fact developed a homogeneous practice, which might support a more deterministic view, or whether the evidence supports more complicated patterns of difference. Only subsequent studies will reveal whether or not these patterns will persist over time.

Methods and Study Design

In order to test for differences in the collaborative and discursive practices across top U.S. political blogs, we selected the 155 top political blogs and designed a structured, qualitative content analysis instrument. We then applied the instrument during a two-week period in early August 2008. The rest of this section presents an overview of several key concepts and variables,

our coding scheme, sampling procedure and analytical techniques.

It is easy to make the mistake that there is only one technology or cluster of technologies involved in blogging. In fact, the term "blogging" has more of a cultural meaning than a technical meaning. In particular, there are many different kinds of platforms and plug-ins available that make user (as opposed to primary author) participation easier, and allow participants other than the primary author or authors to make contributions that have prominent placing in the site. Some of these technologies are explicitly intended to facilitate contributions and the management of large numbers of contributions. These include Scoop, Drupal, SoapBlox, and Expression Engine.⁴ Furthermore, standard blogging platforms like Blogger or WordPress themselves also offer options (through so-called plugins such as Disgus, phpBB, and HaloScan) that allow for potentially richer interaction between the core blogger or bloggers who have primary author privileges, and many contributors who do not have those privileges. For example, site administrators can configure Scoop, Drupal, SoapBlox or Expression Engine to allow registered users of the site to maintain their own blogs or "diaries" and to recommend other users' content. Daily Kos and Calitics are examples of prominent sites that run Scoop and SoapBlox respectively. Similarly, Disgus and phpBB extend the commenting functions of more traditional blogging tools, facilitating threaded commentary, collaborative filtering, and user reputation scores as in America Blog (http://www.americablog.com/) or Eschaton (http://eschatonblog.com).

Instrument Design⁵

The coding instrument we use in this study draws on techniques of content analysis

adopted widely by communication researchers (Krippendorff, 2004). The instrument was intended to capture relevant information related to our research questions about the blogs' (A) organizational form; (B) community of participants; (C) content; and (D) technological architecture. Our questions focused on stable, structural attributes of each blog, avoiding timesensitive elements of the text and hyperlinks.

To examine *effective participation*, that is, speech that is not only easy to make but also susceptible to being heard by a relevant community (Benkler, 2006), we anchored our observations in an objective measure of the significance of contributions, or their availability to other users of a site as moves in an on-site conversation. To do so, we adapt Hargittai's (2000) distinction between *accessible* and *available* online content. Early optimism about the ability of the Internet to radically reduce the costs of media production and distribution overlooked the problems that would result from such an overwhelming flood of information. Building on studies of server logs indicating that people rarely went "deeper" than a couple of clicks on any website, Hargittai shows that although the Internet makes an enormous amount of information *available*, most users are unlikely to encounter the vast majority of it. Her results imply that unless online content is presented, indexed, curated, or otherwise linked-to in such a way that it becomes more easily *accessible*, it will likely remain unseen.

Operationalizing Hargittai's insights, we term content accessible on the front page of a site "primary," and everything that requires additional clicks to reach "secondary." Our distinction reflects the fact that many blogs with multiple authors contributing posts, comments, and/or forum threads reserve the front page for high status authors and posts. Doing so creates a core-periphery distinction among participants on a site. This distinction therefore allows us to

characterize how the blogs in our sample organize and structure their site irrespective of particular writing styles or the substance of content. It is worth underscoring that we do not aim to over-interpret our distinction between primary/secondary content in the absence of empirical data about the behavior of site visitors. Further research on blog reading and writing practices would be necessary to confirm or refute the extent to which these categories play a role in the actual production and consumption of site content. Nevertheless, the distinction between front page and non-front page content is likely a valid proxy for accessibility. Inasmuch as the distinction reflects a status hierarchy as well as a formal aspect of the website's structure, it is also an important marker of organizational relations on the site, even if future studies find that it has little or no effect on reading practices.

The primary/secondary content distinction helps us assess another crucial aspect of blogs that no previous study had rendered explicit: the boundaries between primary content producers and other users or readers. In this regard, not all secondary blog content is created equal. Some blogs retain rigid barriers between user-generated contributions (whether in the form of comments, internal blogs, and/or forums) and "authorized" primary content. Frequently, a combination of technological and social affordances keep primary content insulated from secondary content. For example, the blog Little Green Footballs (http://littlegreenfootballs.com) has an extremely active discussion forum and comment threads, none of which are more than a click away from the site's landing page. Nevertheless, author/owner Charles Johnson is the only person with primary content posting privileges very rarely includes user-generated secondary content on the front page of the site. Both Johnson's habits as well as the configuration of the software he has embedded in the site maintain a clear distinction between the site's primary and

secondary content areas. Occasionally, a blog will create opportunities for user-generated and secondary content to earn a "promotion" to the front page.⁶ Less often, a site excludes secondary content entirely. Most unusual of all, a site can make no meaningful distinction between user-generated work and the work of site-leaders – among the sites in our sample, this is most closely approximated in especially large, dynamic forums such as Free Republic or Democratic Underground.⁷ The primary/secondary content distinction therefore allows us to identify an externally-observable, objective measure, from which we can evaluate the character of participation: the degree to which contributions by people other than the owners/operators/core authors of a site are practically visible on the site; the degree to which they are separated from high-status statements; and the degree to which they have been filtered as relevant and credible for reading and discussion among site participants and visitors.

We added one more observable measure of participation by evaluating the technical features that enabled it. In particular, we categorized whether or not the blogging platforms used by the sites in our study included enhanced technical affordances for collaboration, participation, and discussion. For the purposes of this question, we counted any of the following technical tools as an "enhanced" affordance: forums; chat; secondary and user blogs; stable user profiles or content feeds; and collaborative moderation or filtering tools. Comments alone are standard in almost all blogs, and we did not count them as "enhanced."

Finally, we sought to characterize the predominant style of both primary and secondary content appearing on each blog. In this regard, we use a distinction between "linkers" and "thinkers" that originally appeared in response to an April, 2002 blog post by Steven Den Beste (quoted by Drezner & Farrell, 2008).8 The premise of Den Beste's analysis is that some bloggers

tend to write little and link a lot, effectively acting as an editorial filter for their readers; while others tend to write a lot and link much less. In order to evaluate this aspect of each blog's primary content, we looked at the twenty most recent front page posts. For secondary content, we included as many as possible of the most recent fifty comments drawn from at least three separate comment and/or forum threads; and the five most recent user blogs or diaries. In both cases, we assessed qualitatively whether primary and secondary content tended strongly towards the linking or thinking extreme. We also included an option for content that embraced both practices equally. Given the limitations of this qualitative assessment, we interpret the results of this variable with care.

Definitions and Sample Selection

We structured our sampling procedure to incorporate a range of definitional and ranking criteria used by scholars, independent blogging experts, authors, and blog analytics companies.

Our sampling methods thus enabled us to overcome the absence of an objective set of *a priori* criteria for defining blogs in addition to the proliferation of metrics for producing blog rankings.

In order to do this, we first generated a large and inclusive list of URLs categorized as "top political blogs" by aggregating seven existing lists from six different sources⁹:

[TABLE 1]

Each of these lists uses slightly different metrics to determine its ranking, such as hits, total inlinks, blogroll in-links, ranking algorithms, and editorial opinion. We chose the seven lists with the objective of including valid and widely respected ranking systems which, once combined, would provide a ranking of top political blogs. Our selection followed the work of previous blogosphere research in this regard (Adamic & Glance, 2005; Wallsten, 2007; Hargittai et al., 2008). Roughly speaking, if a blog appeared on more than one list, we judged it as more influential.

We ranked the URLs in our aggregated list based on the number of original listings in which each URL appeared. ¹¹ Finally, we applied the following criteria to the ranked aggregated list. To be included in our sample, a URL had to:

- 1. Appear on at least four of the seven lists of "top blogs" (or at least five of the seven lists, for the top 65 blogs in our study);
- 2. Show signs of active posting and/or commenting within the 30 days prior to the beginning of our coding;
- 3. Contain content that predominantly and/or consistently addressed U.S. political issues;
- 4. Contain at least one page labeled or described explicitly as a "blog." The resulting list contained a total of 165 URLs, ten of which were later discovered to be alternate URLs for the same website, and therefore excluded, leaving the total number of unique blogs in our sample at 155.¹²

It is important to underscore a few characteristics of our sample. First, even though it includes over 150 URLs, the group of top political blogs in our study remains very small and exclusive.

There are literally millions of blogs in the English language and many thousands of those are concerned with political topics on a regular basis. A random sample drawn from this universe would fail to capture the blogs that attract the vast majority of site-visits and in-links, which previous research has shown follow "power law" type distributions (Adamic and Huberman, 2000). Given the unequal nature of readership distribution, our method of discovering top blogs has resulted in a sample that likely accounts for a very high proportion of the total number of site-visits and in-links in the U.S. political blogosphere.

Coding Procedure

The development of the coding scheme occurred between March and June, 2008. During that time, we refined both documents by applying them to subsets of the blogs included in Adamic & Glance's (2005) sample. We arrived at a stable version of the codebook on the basis of these preliminary tests, at which time we added an additional coder. The training of our second coder took place in the month of July, during which time we ran and discussed the results of three separate pilot studies on 6-10 blogs. Further changes to the codebook were prohibited following the completion of the third pilot study.

Full coding of our entire sample took place during the first three weeks of August, 2008. As in Hargittai et al. (2008), we chose this relatively slow period in the Presidential campaigns in order to avoid major political events.¹³ We randomly assigned a set of 129 URLs to each coder, including a randomly chosen overlapping set of 42 URLs, which we then used to test inter-coder reliability. For each URL, coders were asked to confirm that it met the aforementioned criteria for inclusion in our study. Then, they spent approximately 20-30 minutes answering the

questions in the codebook without the aid of any sources beyond those available within the site's address domain. For the sites that were coded once (i.e. that were not part of the intercoder set), we accepted the answers provided by each coder. A small number of conflicting codes emerged within the intercoder sample and Shaw settled these disagreements by reviewing each conflict by hand and, if possible, revisiting the site in question.

Subsequent to the completion of all coding, Shaw applied left, right, and center codes for ideological affiliation to all of the valid URLs within the sample. In doing so, he applied the same criteria for left and right used by Hargittai et al. (2008). Blogs which (a) did not demonstrate explicit signs of partisanship or (b) demonstrated equal representation of left and right views were coded as "center." We chose to apply left, right, and center labels after the completion of our substantive coding so as to prevent these labels from influencing our assessment of the sites. To ensure that this process did not introduce bias in the form of selectively labeling sites that conformed with our hypotheses, another researcher randomly checked Shaw's codes against the categorizations made in prior studies (Adamic & Glance, 2005; Hargittai et al., 2008) and the independently labeled list of blogs from Morningside Analytics which we used in our sampling procedure.

To be coded as "center," blogs had to meet at least one of the following two criteria: (1) demonstrate relatively moderate points of view that did not map clearly onto any of the predominant political ideologies of the right or left in the United States; (2) explicitly function as a platform for a broad diversity of views encompassing positions on both the right and left in more or less equal measure. After applying these requirements by visiting the front page of each blog, we found 23 blogs in the center out of the 155 blogs in our sample. The fact that we found

such a relatively small proportion of blogs in the center suggests that the most visible and heavily linked blogs remain strongholds of partisanship. The limited number of center blogs also constrained our ability to draw statistically meaningful conclusions about the relationship of the top center blogs to the top blogs of the left and right.

Statistical Tests and Analytical Techniques:

For each question in the codebook we tested whether there was a significant difference in the distribution of responses by political affiliation. Our null hypothesis was that there is no difference in response based on party alignment. Most of our questions had a binary response or were collapsed into binary form, for example, whether comments are permitted on the site or not, giving us a simple contingency table. As is typical for a contingency tables, we test used the χ^2 test for independence to determine whether what we observed from our coding of the blogs was significantly different from what we would expect if the null hypothesis were true.

We classified whether a blog was left, right, or center by a visual inspection of the front page of the 155 blogs. See section on Center Blogs Results and Analysis (below) for a discussion of selection criteria. Our sample broke into 65 and 67 blogs on the left and right respectively, and 23 in the center. The small number of blogs in the center made it impossible to calculate the χ^2 test across the three groups for many of our variables. As a result, we separate the results and analysis for the Center blogs in order to avoid the implication that our findings about them were comparably robust to our findings about the left and right. We used the software package R for the statistical testing and compared left versus right, then each against the center coded blog responses. Previous literature suggests a power law distribution (Adamic & Huberman, 2000;

Drezner & Farrell, 2008; Shirky, 2008: 46) of traffic, links, and attention in the blogosphere Since the characteristics of the higher ranked blogs may be different than those ranked lower, we created a second smaller sample from those URLs that appeared on only five or more of our seven lists of the top political blogs. We then repeated the left/right analysis for these 65 superelite blogs.

Results

Our starkest and most objective finding is that the left and right wings of the blogosphere adopted significantly different technological features and platforms. Over 40% of blogs on the left adopt platforms with enhanced user participation features. Only about 13% of blogs on the right do so. While there is substantial overlap, and comments of some level of visibility are used in the vast majority of blogs on both sides of the political divide, the left adopts enabling technologies that make user-generated diaries and blogs more central to the site to a significantly greater degree than does the right.

[TABLE 2]

[FIGURE 1]

Table 2 and Figure 1¹⁴ show the raw and proportional differences in the use of enhanced blogging platforms left and right. Close to half (46%) of blogs on the left use software that facilitates the incorporation of user comments, blogs, and diaries into the primary blog content, whereas 13% of the blogs on the right do so. In proportional terms, there an even larger

difference separates the two sides in active implementation of user diaries or blogs (22% vs 6%). The distribution of flexible content boundaries is nearly identical (22% on the left vs. 9% on the right). Together, the results of all three questions illustrate a gap in the participatory affordances of the left and right.

The differences in technological platform and tool adoption across the left and right reflect a related distinction in the organizational structure of sites on both sides. Here the left and right differ as well, with the left tending towards larger numbers of site owners, administrators, or leaders (Table 3). Right-wing bloggers tend to operate on blogs that are managed or governed by a single individual more often than do bloggers on the left, with 42% of blogs on the right falling in this category, and 20% on the left (Figure 2).

[TABLE 3]

[FIGURE 2]

Even collaboratively authored blogs, however, generally have a core group of contributors that is not numbered in the hundreds. DailyKos.com, for example, which has one of the largest core groups, has approximately 20 core authors. The major question with regard to participation, therefore, is how contributions by non-core participants are handled. At one end of the spectrum, one sees websites where a sole author is responsible for all content (whether detailed commentary or link pointers), and does not even enable comments, so that users are

relegated to passive reception of the blog's contents. Instapundit is an example of such a blog on the right, and LiberalOasis on the left. At the other end of the spectrum, we see sites in which content generated by non-core participants is easily and widely included and plays a substantial role in the highly visible parts of the site, so that it can be said to have a core role in shaping the discursive space. Broadly speaking, there are three types or formats for such non-core contributions. The first, and most common, are comments. These tend to be relatively peripheral to the main content, are culturally understood to be short and punchy, and are usually linked-to from the front page, as part of a deeper dive a reader may take into a given post, and so remain secondary content. The second are forums (also called bulletin board systems). These are usually portions of a site dedicated to user interaction, separated from the main page of the site and its primary content. Forums tend to have somewhat more extensive debate, but, like comments, are relatively punchy and short, and are located off the front page of a site, outside of the main stage. (Although in some cases, like FreeRepublic.com, they may, as a cultural practice, become the primary focus of the site.) The third are diaries or secondary blogs, which tend to include longer posts, and which are easy to integrate into the main parts of the site.

Some of the earliest blogging platforms included features that enabled comments from readers. Consistent with the historical model provided by broadcast media and "letters to the editor" pages of newspapers, the designers of these sites generally assumed that there were no more than one or a few core contributors to the site and that site visitors would be content to leave only comments (or join a forum if they felt a need for more interaction and discussion). All of these assumptions changed with the rise of large-scale peer-moderated communities like SlashDot (http://slashdot.org). Slashdot was built on a customized platform that made it possible

for every visitor of the site to register, make contributions in much the same way as the site's editors, and moderate the contributions of their peers. The result was a cross between a forum or message board and a blog (as it was then understood) – and it gave rise to a dynamic conversation with a continual churn of freshly posted material which was constantly being vetted by members of the community in a distributed fashion (Lampe, Johnston & Resnick, 2007).

Within the political blogosphere, secondary blogs or diaries appear to have first emerged on Daily Kos in October, 2003 and MyDD shortly thereafter. The adoption of platforms that could support this kind of distributed moderation and contribution signaled an important shift in terms of the structure of political debate in the networked public sphere. By the time of the presidential election the following year, political blogs had become a widely-publicized media phenomenon and Daily Kos had developed a reputation based on its large, and often controversial community of members.

Perhaps not surprisingly, given this history we find no significant difference between the left and the right in the use of comments or forums, but a significant difference in the use of diaries, which are used more widely on the left (Table 4 and Figure 3).

[TABLE 4]

[FIGURE 3]

This technical affordance, in turn, makes it easier for left-wing blogs to generate secondary content of some degree of sustained writing, reporting, and opinion and make it a part of the

front page of the site. When we look, independently, at the structure of the relationship between secondary content and primary content, we find that here, too, the left adopts more fluid and permeable boundaries between primary and secondary content, while the right adopts practices that more strictly separate secondary from primary content (see Table 2 and Figure 1, above).

Our findings on content boundaries are important for two reasons. First, a critic might argue that we are too dismissive of the participatory potential of comments and forums, and therefore biasing our findings "against" the right wing blogs. Here, we see that the actual information flow between secondary and primary is structured to be less fluid, leaving usercontributed statements on the periphery of the agenda of the right wing sites. Powerline (http://www.powerlineblog.com), one of the most popular blogs on the right, illustrates this point. The content created by all three of the core bloggers appears on the landing page of the site in reverse chronological order. The landing page also includes various links to the forum, the location of all secondary content contributed by non-core participants, but no technological affordance makes it possible for non-core authors to contribute to this main page (even as commenters). The layout reinforces the sharp division between these secondary contributions and those of the core authors, as the forum has a completely different appearance from the main site. While this is not a hard and fast rule—the Free Republic Forum is a highly participatory site, more similar on most measures to the left-wing blogs, even though it is on the right—it is nonetheless the observed pattern.

Second, this finding emphasizes for us that even when technology allows the easy integration of collaborative features, cultural, organizational, or social practice may work at cross purposes. One example of this is TownHall, a right wing site that does enable user blogs, but

where, despite their technical availability, these secondary blogs are strictly separated from primary author blogs, so that they remain a less accessible, secondary component of the discursive practice of that site. It is important to reiterate that such technical and editorial decisions about the structure of primary and secondary content do not foreclose active engagement with non-core contributions. Personal email communications with primary authors, which are perhaps the most off-site invisible form of participation, can be integrated into the primary content. This is a practice frequently used by Joshua Micah Marshall (2008), founder of TalkingPointsMemo.com. In other words, whatever the technological affordance, it is embedded in a social-cultural practice, which, in turn, can amplify or muffle participatory potential.

Another important aspect of political blog's discursive culture concerns the writing style and depth of analysis. We encounter a significant difference between the left and the right is that the primary authors on the left tend slightly to write more substantive reporting and opinion posts, whereas the right wing blogs tend to focus on relatively short and punchy posts, linking externally to other sites (Table 5 and Figure 4).

[TABLE 5]

[FIGURE 4]

Note, however, that there is substantial overlap: we observed mixed practices on two thirds of the sites. More fine-grained work is necessary to explore the possible differences between left and right in this area. Nevertheless, these findings suggest that the blogosphere may play a

aggregate and amplify news stories written by others, although we did not collect data to suggest who those others are. It also explains why right wing blogs have been observed to link more often than left-wing blogs (Adamic & Glance, 2005)—filtering interesting content produced by others, and providing links to it for their users as opposed to offering detailed commentary, is the primary function of a number of popular blogs on the right. On the left, by contrast, primary content tends to be longer, consisting of more reporting and opinion. This may, in turn, be consistent with less linking. More importantly, it is also consistent with the idea, expressed by some bloggers, that the left felt shut out of mainstream media and needed avenues outside it to get left-liberal opinions out into the public sphere in a well-articulated form accessible to others (Armstrong & Moulitsas, 2006; Bowers & Stoller, 2005). We discuss this, and other possible explanations of the difference, in the final section of the paper. Whether the content of these longer form contributions was in fact significantly different from what was found on mainstream media sites is a topic for further research, which will require more robust text analysis tools.

The final piece of the puzzle relates to the conversion of participation in discussion into political mobilization. Perhaps for purely deliberative theories of the democratic public sphere this conversion is unimportant. But for purposes of interest group politics, or for a democratic theory that is attentive to political power and social power as well as to deliberation, the question of whether discursive practices are tied to action is crucial. Our method of data collection does not provide insight as to when or how blog readers and contributors may have acted in response to something they encountered online. As a result, we focused on the presence of "calls to political action" and fundraising efforts in our coding. Here, we find no significant differences

within the sample as a whole, but a significant difference between the top 65 blogs on the left and the right along dimensions related to mobilization (Table 6 and Figure 5).

[TABLE 6]

[FIGURE 5]

First, we see many more calls to action on the left than on the right. These include direct appeals to attend political rallies, participate in letter-writing or phone banking campaigns, raise funds or attend protests. One such example involved the Burnt Orange Report blog's efforts to recruit readers to perform volunteer data entry on behalf of the Travis County, Texas Democratic Party Office. As the distributions in Table 6 reveal, much of the disparity between the presence of calls to action on the right and left stems from the prevalence of campaign fundraising efforts on the left. The relatively low level of inter-coder reliability for these questions indicates that the results should be treated cautiously (Krippendorff, 2004). However, the differences are significant and also consistent with the patterns revealed by the rest of our findings. They are also consistent with the findings of Smith (2009) on the differences between Democratic and Republican online mobilization during the 2008 campaign as a whole.

These practices of the left concerning the encouragement of offline participation are not simply a side-effect of the Obama campaign. In fact, fundraising efforts in the progressive blogosphere predate the 2006 mid-term elections, when some blogs like MyDD.com led coordinated campaigns to direct funds to Democratic congressional candidates who stood the

best chance of taking seats away from Republican incumbents. Even in 2008, some of these efforts specifically targeted congressional campaigns through the online Political Action Committee (PAC) ActBlue. Looking at the structures of participation and the levels of mobilization on the left, however, leads us to think that the stellar Obama Internet campaign was largely an extension of practices that already characterized the left-wing blogosphere, rather than a new order imposed on a previously disorganized or non-participatory population.

[FIGURE 6]

In all, we find evidence of an association between the technologies, institutions, and practices of participation. In Figure 6 we see that sites on the left adopt more participatory technical platforms are comprised of significantly fewer sole authored sites, include user diaries and blogs, practice fluid boundaries between secondary and primary content, include longer narrative and discussion posts, and, among the top half of the blogs, use the blogs as platforms for mobilizing action as well as engaging in public political discourse.

Center Blogs Results:

Despite their underrepresentation in our sample, center blogs varied from both the right and left along a number of the dimensions included in our instrument and we can draw some tentative conclusions based on our results. A pattern emerged suggesting the coexistence of characteristics we identified as predominant on the right and left. Among the center blogs, secondary content and collaboration appear to play a relatively minor role. At the same time,

however, the tenor of the discourse in the center was oriented more towards substantive discussion than sarcasm, combative one-liners, or short linking posts. With regards to technical affordances for collaboration, almost none of the center blogs had user diaries or secondary blogs or offered anything in the way of enhanced commenting, social networking, recommendation, or reputation functions. In this, they were more similar to the right than the left, although the number of center blogs offering collaborative affordances was too low to render statistically meaningful comparisons. In contrast to the right, however, the center blogs called for more reporting tips and had more "in-depth" secondary content, although the intensity of secondary participation remained relatively low. Taken together, these attributes suggest that the center may have a culture of participation that is distinct from that of the right or left. Further research will be necessary to confirm or reject these observations.¹⁹

Conclusions

We find that the left and right wings of the political blogosphere are different on many dimensions that are at the core of assessing the effect of the Internet on democracy and the structure of the public sphere. The left adopts technical platforms that enhance participation in the blog's primary discursive space. The right emphasizes sole-authored blogs, and constructs blogs in which the modes of participation of users are separated rigidly from the main content, and largely set to the side of the main discursive space. The left not only chooses more participatory technology, but also uses the available technological tools to maintain more fluid relations between the secondary or user-contributed materials and those of primary contributors. The left is more egalitarian in opportunities for speech, more discursive, and more collaborative

in managing the sites. The right is more individualistic and hierarchical, with its practice consisting more of pointing to external stories than engaging in discussion or commentary. We do not contend that these characteristics are inherently correlated in any way – for example, it is not a given that sites operated by individuals would link more actively than sites where there is broader participation and discussion. Nevertheless, among the blogs in our study, these were the attributes that characterized the left and right respectively. The differences offer evidence of a more complex relationship between the emergence of a technology, its adoption patterns, and the political-theoretical implications of the adoption patterns actually practiced.

Our study suggests that the effects of the Internet on democracy are neither homogeneous nor uniform, and may change over time. The left's practices are more consistent with an interpretation of a participatory public sphere, though our study says nothing about deliberation versus polarization. The emphasis in current analyses on the power law distribution of blog links, coupled with the claim that there are only a small number of hyper-linked blogs and only their authors are visible, understates the importance of participatory practices within blogs. Similarly, any effort to characterize the socio-economic and educational status of contributors by looking at the lead author of a blog may misrepresent who is participating depending on the type of community. Whether we are looking at BarbinMD, a self-described "stay-at-home mother of two who spent her time helping with school projects and chauffeuring kids to soccer or lacrosse," and is now, between chauffeuring kids, a masthead contributor to DailyKos.com with a daily readership of several hundred thousand, or at any one of thousands of commenters on the top left and right wing blogs, they represent a participatory practice that was unimaginable two decades ago. And, where tens or even hundreds of thousands of people in a population have direct access

to a visible platform, people who are one or at most two degrees of social separation out from them are much closer to a visible outlet than they are to the op-ed contributors of *The New York Times*, for example. The practices of the right wing of the blogosphere are, however, more consistent with the claims that the networked public sphere is no less elitist than the mass mediated public sphere. Further research will be necessary to determine the extent to which these affordances may undermine or reinforce existing social inequalities (Hargittai & Walejko, 2008). Similarly, subsequent studies could combine better means of tracking influence with more nuanced measures of participation and engagement beyond the evidence we have presented here. Wallsten's (2007) analysis of agenda setting and Karpf's (2008a; 2008b) Blogosphere Authority Index both suggest promising avenues in this regard.

A second, methodologically important point, is that link analysis as it has been used to map the networked public sphere, has clear limitations for analyzing participation. However many studies based on link analysis disagreed about some questions, they portrayed a uniform and symmetric political blogosphere (e.g. Adamic & Glance, 2005). Our study shows that this supposed symmetry is misleading. It raises a concern with link analysis that zooms out to look at the shape of the blogosphere as a whole by treating the entire blog domain as the node, and in doing so effaces the level of the individual post, the individual author, and the internal workings of discrete blogs, aggregated across a large number of sites. All of these different levels and underlying practices require more nuanced exploration.

Third, our study is consistent with the idea that technology, organizational forms, and authorial and cultural practices can reinforce each other to form the basis of the structure of the public sphere. We cannot make claims about what causes these diverse elements to cohere in

each case; however, we can point to particular variations in technology, organizational form, authorial role, and participatory practices to suggest that these sustain a significant difference between the left and right wings of the blogosphere.

While the left wing of the blogosphere exhibits stronger indicators of mobilization and organization for action, it is impossible to tell from our study whether the difference is causally connected to the fact that the left also uses more participatory and discursive platforms. It is certainly possible that participants and users who are more engaged on a day to day basis would be more amenable to mobilization for action as well (Lawrence et al., 2010). But the unequal levels of mobilization may also reflect the fact that we took our observations during an election cycle at a moment when the left was highly energized, while the right, just before Sarah Palin's appointment as John McCain's running mate, was lethargic and dejected politically. While that fact does not affect our core findings, it does moderate our confidence in the stability of the difference with regard to mobilization to action.

What would account for the different patterns of weblog use on the left and the right? It cannot be one of the determinants that is shared across the ideological divide, like the political institutional framework (U.S. law or the party system) or the available technologies. Possible explanations of the divergence range from more to less deterministic. One line of research tries to tie political positions, at the individual level, to fairly stable personal characteristics, such as work by psychologists seeking to anchor political beliefs in their satisfaction of psychological needs (Jost, Glaser, Kruglanski & Sulloway, 2003). In addition, research on cultural cognition has found that people form beliefs about facts and circumstances in ways that fit their stable political/cultural values, imposing cognitive structures of belief on evidence that fall into four

boxes created from the two binaries: individualist/communitarian and hierarchical/egalitarian. Our findings are certainly consistent with identifying the influential sites on the right wing blogosphere with the individualist/hierarchical quadrant, where, for example, opponents of gun control and environmental regulation often reside (Kahan, Braman, Slovic, Gastil & Cohen, 2007). Certainly, one could interpret our results to claim that Republicans and Democrats embraced discursive forms that fit the respective cultural cognition and psychological profiles that reflect their political views. Blogs on the right are more likely to be individualistic and hierarchical, consistent with the arguments from cultural cognition made by Kahan et al. (2007). The right's relatively limited integration of user contributions is consistent with readers or users who seek the stability of authoritative voice, consistent with claims by Jost et al. (2003) about the kinds of psychological needs that conservatism serves. Similarly, the more egalitarian, participatory practices on the left require tolerance for the unpredictability of open and fluid discourse. But it is important, in this context, to remember that, although the differences are significant and large, there is also a high degree of overlap between the practices of the left and right, which challenges claims of stable difference in cognition or personality.

An alternative explanation would be more historical and contingent, rooted in the institutions of information production and political action particular to American Republicans and Democrats in recent years. During the formative period of the blogosphere (2002-2004), the American political right had control of all branches of the federal government; it had active presence in the public sphere through Fox News and AM talk radio; and it had substantial networks of popular mobilization through churches. The left, by contrast, was out of power under an administration that was increasingly perceived as hostile and polarizing; felt excluded

from mainstream media; and had no clear community-based structures of participation (Moulitsas, 2008). Many individuals on the left felt alienated from the structures of power within the Democratic party (Armstrong & Moulitsas, 2006). Under these conditions, it is perhaps unsurprising that the right wing of the blogosphere would place less of an emphasis on building engaged participation online, while the left would seize upon the affordances of the new medium to build platforms of engagement and active mobilization (Bowers & Stoller, 2005; Kerbel, 2009). Certainly this story is consistent with the self-understanding of major bloggers on the left (Moulitsas, 2008; Armstrong & Moulitsas, 2006; Bowers & Stoller,, 2005). It also suggests that nothing inherent in the cultural or psychological profiles of bloggers on the right will prevent them from embracing more collaborative modes of participation in years to come.

Yet another explanation may be based on demography. Nationally representative phone surveys have found that increasing numbers of younger people have tended to affiliate with the political left in recent decades (Keeter, Horowitz & Tyson, 2008), and that younger people are the most active users of the Internet for purposes of political engagement (Smith, 2009). It is certainly possible that users who are generally more actively engaged online may be attracted to blogging platforms and plugins that embrace higher levels of user engagement. However, we do not find this explanation compelling for several reasons. First, Smith (2009) reports that Republicans (68%) were more likely than Democrats (53%) or Independents (56%) to be "online political users" during the 2008 campaign cycle. Republicans (84%) were also more likely than Democrats (71%) to use the Internet at all. In addition, Lawrence et al. (2010) find evidence of a very small age difference, on average, between blog-readers and non-blog readers and (more to the point) they find that *political blog readers* are, on average, somewhat older than the

population of blog readers as a whole. In separate surveys of first year college students, Hargittai (2009) similarly finds that young people tend to read political blogs far less than they read other kinds of online media. The available evidence thus suggests overwhelmingly that it is not a cohort of tech-savvy youth driving the growth of participatory political blog communities on the left.

No study that we are aware of can adjudicate conclusively between these different explanations of our findings. We can say that the relative freedom to choose technological elements and deploy them in discursive practice allowed the left and the right to adopt divergent blogging platforms, organizational and authorial forms, and mobilization practices. Further nuanced and "high resolution" research into patterns of posting, commenting and discussion; participation; and the capacity of the blogosphere to drive levels of engagement along various other dimensions will be necessary to understand the implications of these findings more fully.

Widely divergent adoption patterns of a given technology are not a new phenomenon. Protestant and Catholic Europe had different and antagonistic approaches to the printing press, resulting in centuries of difference in levels of literacy and reading practices, which did not narrow until the late 19th and early 20th centuries (Eisenstein, 1979; Starr, 2005). It remains to be seen whether, and to what extent, the shift in political power in the United States between 2006 and 2008 will elicit a shift in practices of online participation and mobilization, or whether the practices remain, either because they reflect stable cultural or psychological types or because historical patterns of practice at transition points tend to have their own inertia. But the perennial debates over the degree to which the Internet enhances democratic participation will to some extent depend on whether the left or right wing of the blogosphere is generalized, and how newer

technological platforms are incorporated into the extant practices of the societies and communities into which they are introduced.

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Figures and Tables

Figure 1: Technology Adoption and Participatory Affordances

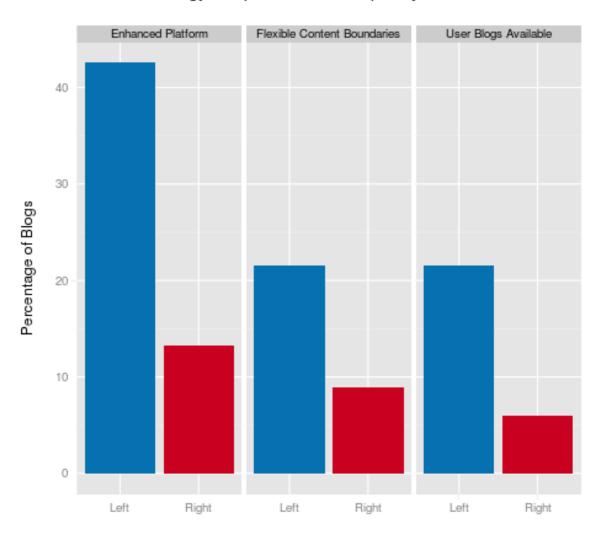


Figure 2: Individual Governance

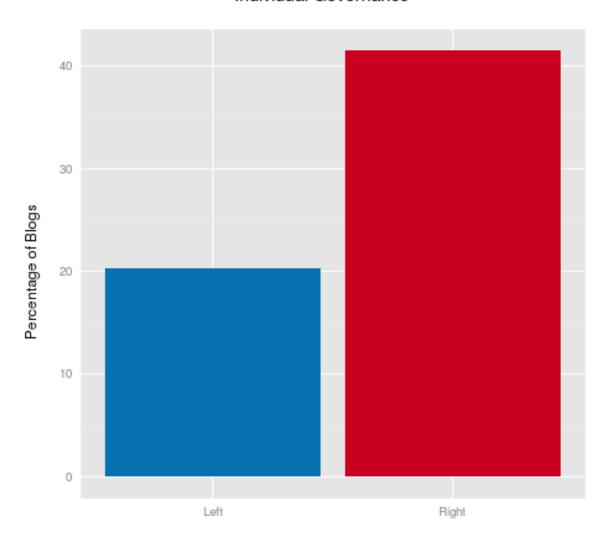
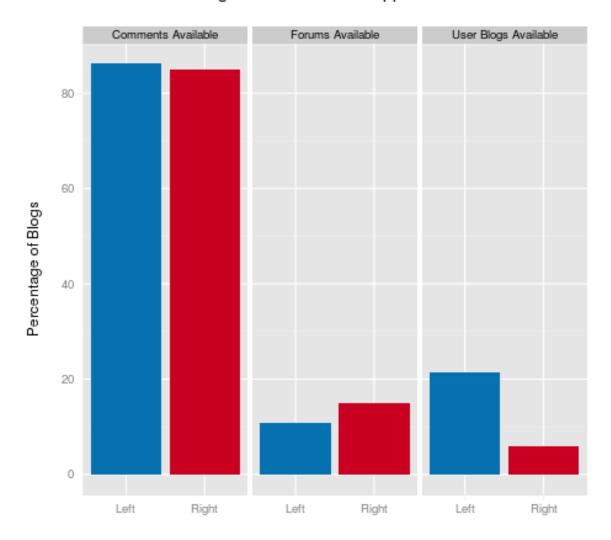
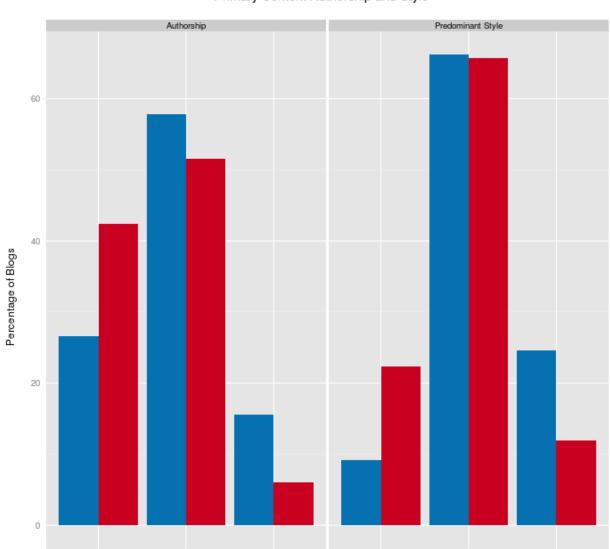


Figure 3: User-generated Content Opportunities



Solo Authored (1 person)



Links and Minimal Analysis

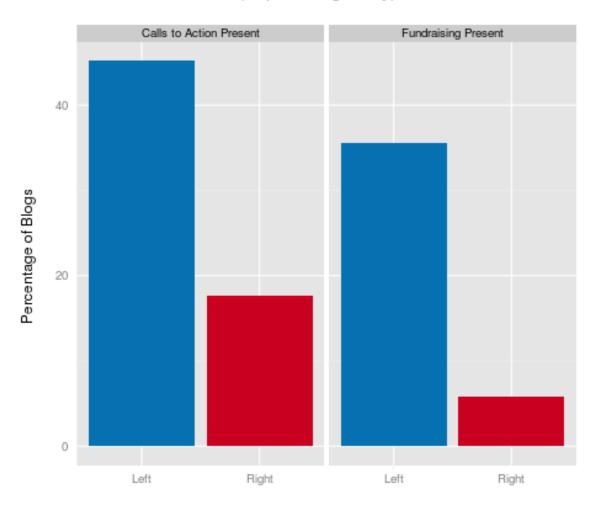
Mixed

In-depth Analysis

Multiple Authored Large-Scale Collaboration (2-20 people) (More than 20 people)

Figure 4
Primary Content Authorship and Style

Figure 5: Mobilization: Calls to Action and Fundraising (Top 65 Blogs Only)



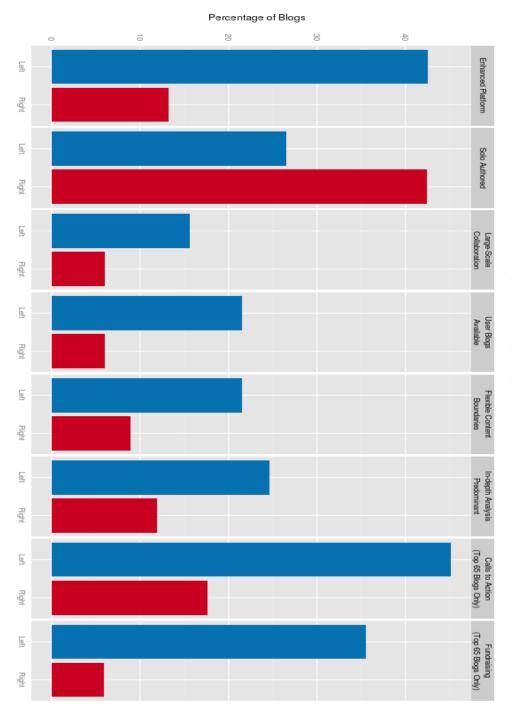


Figure 6: Summary of Significant Differences

Table 1: Sources of Political Blog Rankings

Source	URL	March 14, 2008	
Yahoo.com	http://dir.yahoo.com/Government/ Politics/NewsandMedia/Blogs		
Technorati.com	http://www.technorati.com/ blogs/directory/politics	March 14, 2008	
Campaigns and Elections	http://www.campaignsandelections.com/ blogs/allblogs.cfm	March 14, 2008	
The Truth Laid Bear (link rankings)	http://truthlaidbear.com/ecotraffic.php	May 23, 2008	
The Truth Laid Bear (traffic rankings)	http://truthlaidbear.com/ecotraffic.php	May 23, 2008	
Blogrolling.com	http://www.blogrolling.com/top.phtml	July 10, 2008	
Morningside Analytics	NA (Personal email)	July 28, 2008	

Table 2: Technology Adoption and Participatory Affordances

		Left	Right	p-value
$Platform^{\dagger}$	enhanced standard	20 27	7 46	0.0021
User Blogs	available unavailable	14 51	4 63	0.0187
Content Boundaries	flexible rigid	14 51	6 61	0.0762

[†] Missing data from 32 blogs due to non-standard platforms

Table 3: Site Governance

	Left	Right	p-value
Individual	13	27	0.0157
Multiple Person	51	38	0.0157

Table 4: User-generated Content Opportunities

		Left	Right	p-value
Comments	available unavailable	56 9	57 10	0.9430
Forums	available unavailable	7 58	10 57	0.6507
User Blogs	available unvailable	14 51	4 63	0.0187

Table 5: Primary Content Authorship and Style

		Left	Right	p-value
Authorship	Solo (1)	17	28	
	Multiple (2-20)	37	34	0.0687
	Large-scale Collaboration (>20)	10	4	
Predominant Style	Links and Minimal Analysis	6	15	
	Mixed	43	44	0.0387
	In-depth Analysis	16	8	

Table 6: Mobilization: Calls to Action and Fundraising (Top 65 Blogs Only)

		Left	Right	p-value
Calls to Action	present absent	14 17	6 28	0.0330 [†]
Fundraising	present absent	11 20	2 32	0.0076 [†]

 $^{^\}dagger$ Indicates low intercoder reliability

Appendix 1: Blogs in our Study by Political Classification

Center Blogs:

http://www.politicalwire.com

http://www.themoderatevoice.com

http://www.realclearpolitics.com

http://www.balloon-juice.com

http://www.theagitator.com

http://www.warandpiece.com

http://www.msnbc.msn.com

http://www.marginalrevolution.com

http://www.poliblogger.com

http://www.memeorandum.com

http://www.andrewsullivan.theatlantic.com

http://www.mediabistro.com

http://blog.thehill.com

http://www.laobserved.com

http://www.cqpolitics.com

http://www.professorbainbridge.com

http://www.oxblog.blogspot.com

http://blog.foreignpolicy.com

http://econlog.econlib.org

http://www.pollster.com/blogs

http://www.watchblog.com

http://www.samizdata.net

http://www.right-thinking.com

Left Blogs:

http://www.mydd.com

http://www.washingtonmonthly.com

http://www.crooksandliars.com

http://www.wonkette.com

http://www.talkingpointsmemo.com

http://www.dailykos.com

http://www.thinkprogress.org

http://www.atrios.blogspot.com

http://www.juancole.com

http://www.firedoglake.com

http://www.oliverwillis.com

http://www.talkleft.com

http://www.liberaloasis.com

http://www.burntorangereport.com

http://www.theleftcoaster.com

http://www.democraticunderground.com

http://www.digbysblog.blogspot.com

http://www.huffingtonpost.com

http://www.thismodernworld.com

http://www.pandagon.net

http://www.swingstateproject.com

http://www.tpmcafe.com

http://www.rawstory.com

http://www.thewashingtonnote.com

http://www.dneiwert.blogspot.com

http://www.blogforamerica.com

http://www.patriotboy.blogspot.com

http://www.tomburka.com

http://www.crookedtimber.org

http://www.americablog.blogspot.com

http://www.commondreams.org

http://www.majikthise.typepad.com

http://www.boomantribune.com

http://www.susiemadrak.com

http://www.angrybear.blogspot.com

http://www.rudepundit.blogspot.com

http://www.obsidianwings.blogs.com

http://www.iowatrueblue.com

http://www.motherjones.com

http://www.thenation.com

http://www.culturekitchen.com

http://www.xnerg.blogspot.com

http://www.salon.com/opinion/greenwald

http://www.bradblog.com

http://www.theoildrum.com

http://www.agonist.org

http://www.newshounds.us

http://www.mahablog.com

http://www.correntewire.com

http://www.sadlyno.com

http://www.alternet.org

http://www.journalism.nyu.edu

http://www.fafblog.blogspot.com

http://www.taylormarsh.com

http://www.matthewyglesias.com

http://www.reachm.com/amstreet

http://www.mathewgross.com

http://www.smirkingchimp.com

http://www.dynamist.com/weblog

http://www.bagnewsnotes.com

http://www.pamshouseblend.com

http://www.thecarpetbaggerreport.com

http://www.mediamatters.org

http://www.pacificviews.org

http://www.leftyblogs.com

Right Blogs:

http://www.instapundit.com

http://www.powerlineblog.com

http://www.michellemalkin.com

http://www.ace.mu.nu

http://www.deanesmay.com

http://www.stoptheaclu.com

http://www.wizbangblog.com

http://www.littlegreenfootballs.com

http://www.newsbusters.org

http://www.outsidethebeltway.com

http://www.imao.us

http://www.rightwingnews.com

http://www.hotair.com

http://www.blogsforvictory.com

http://www.rogerlsimon.com

http://www.mypetjawa.mu.nu

http://www.evangelicaloutpost.com

http://www.betsyspage.blogspot.com

http://www.polipundit.com

http://www.patterico.com

http://www.redstate.com

http://www.dailypundit.com

http://www.althouse.blogspot.com

http://www.lashawnbarber.com

http://www.michaeltotten.com

http://www.sayanythingblog.com

http://www.nationalreview.com

http://www.jihadwatch.org

http://www.americandigest.org

http://www.volokh.com

http://www.vodkapundit.com

http://www.scrappleface.com

http://www.pajamasmedia.com

http://www.iraqthemodel.blogspot.com

http://www.jonswift.blogspot.com

http://www.mudvillegazette.com

http://www.dakotawarcollege.com

http://www.opinionjournal.com/best

http://thepinkflamingo.blogharbor.com

http://www.fallbackbelmont.blogspot.com

http://www.capecodporcupine.blogspot.com

http://www.blogsofwar.com

http://www.conservablogs.com

http://www.anklebitingpundits.com

http://www.nicedoggie.net

http://www.coldfury.com

http://www.floppingaces.net

http://www.blackfive.net

http://www.kausfiles.com

http://www.blog.electromneyin2008.com

http://www.townhall.com

http://www.freerepublic.com

http://www.atlasshrugs2000.typepad.com

http://www.commonsensewonder.com

http://www.corner.nationalreview.com

http://www.alarmingnews.com

http://www.proteinwisdom.com

http://www.hughhewitt.townhall.com

http://www.senatesite.com

http://www.redstate.org

http://www.drudgereport.com

http://www.bamapachyderm.com

http://www.gopusa.com

http://www.billhobbs.com http://www.debbieschlussel.com

http://www.rightwingnuthouse.com

http://www.sweetness-light.com

Footnotes

- 1 The research for this paper was conducted while Shaw was a Research Fellow at the Berkman Center for Internet and Society at Harvard University. The authors wish to acknowledge the Directors, Fellows, and Staff of the Berkman Center for their kindness and support. We would especially like to thank Silpa Kovvali for her diligent research assistance and data collection; as well as Henry Farrell and Eszter Hargittai, both of whom provided thoughtful and constructive feedback on an earlier draft. Thanks also to John Kelly and the folks at Morningside Analytics for sharing their list of top blogs with us. The working paper was originally released as authored by Benkler, Shaw, and Stodden out of respect for Victoria Stodden's early participation, and after a long period during which Shaw and Benkler had proceeded to complete the paper with limited communication with Stodden. After the original release, it became clear that what we saw as an act of respect, in the naming of authors, was not welcome. As a result, Benkler and Shaw take full responsibility for the paper in its entirety, the quality of the data and analysis, and the conceptual framing and authorship. The present authorship designation reflects that fact. Please direct all correspondence to Aaron Shaw, Berkman Center for Internet and Society, 23 Everett St., Second Floor, Cambridge, MA 02138; or email: ashaw [at] cyber.law.harvard.edu.
- 2 It is interesting to note that Wallsten seems to draw mixed conclusions in this regard. On the one hand, he claims that blogs perform an influential role in the public sphere vis-a-vis their effect on the traditional mass media; at the same time, he joins Hindman (2008) in claiming that the demographics of A-list bloggers (white, male, educated, wealthy) tend to reinforce the cultural and political biases of the traditional media. We engage with this argument in more detail below.
- 3 It is important to underscore the contingencies implicit in this claim. Eszter Hargittai's work on the "participation divide" makes clear that the mere existence of participatory affordances online does not ensure that such affordances will be adopted in ways that undermine existing social inequalities or status hierarchies (see, for example, Hargittai & Walejko, 2008).
- 4 See http://sourceforge.net/projects/scoop, http://drupal.org/, http://www.soapblox.net/, and http://expressionengine.com/
- 5 We only review some of the key variables here. The full coding instrument is available from the authors upon request.
- 6 See, for example, this post on the left-wing "Swing State Project" which was a user diary that one of the site editors promoted to the front page of the site: http://www.swingstateproject.com/diary/5072/amazing-political-history-of-ny23
- 7 See http://www.freerepublic.com and http://www.democraticunderground.com.
- 8 See http://denbeste.nu/cd_log_entries/2002/04/Lotsoftraffic.shtml (Accessed December 5, 2008) In fact, Den Beste used the terms "writers" and editors" in his post; however he quickly added the following update: "Several people have already pointed out that instead of 'editors' and 'writers', a much better pair of terms is 'linkers' and 'thinkers'. Sheesh; I should have thought of that."
- 9 The site we used twice was "The Truth Laid Bear," which publishes separate lists based inlinks and site traffic. Because the author of this site, N.Z. Bear, does not separate out political blogs, we reviewed 100 of the URLs on his link-based list and 250 on his hit-based list to determine which ones were political. We counted a URL as political if both coders found that it contained some political content on its front page. We did not consider ads or third-party content as political.
- 10 For another approach to ranking top blogs, see Karpf (2008a; 2008b). While his method is appealing for its transparency and replicability, we found that ours produced nearly identical results insofar as we captured the vast majority of his top blogs in our sample.
- 11 This process resulted in a list of 1080 URLs, each with a ranking from 1-7 corresponding to total number of lists on which the URL appeared.
- 12 The resulting list of blogs included in our study is in Appendix 1, below.
- 13 The Democratic National Convention took place several days after the completion of our coding August 25-28.
- 14 All of the plots were produced in R using the ggplot2 package (http://had.co.nz/ggplot2/), created by Hadley Wickham (2009). The color scheme was generated using ColorBrewer2 (http://colorbrewer2.org), created by Cynthia Brewer and Mark Harrower.
- 15 Markos Moulitsas announced the change on October 15, 2003: http://web.archive.org/web/20040321023148/www.dailykos.net/
- 16 See http://www.burntorangereport.com/showDiary.do?diaryId=6475 (Accessed December 9, 2008).
- 17 Our measure of calls to action did not include fundraising *per se*, but focused on off-line events such as phone banking, rallies, and other forms of volunteer participation. At the same time, because so many off-line forms of

- participation are also fundraising activities, we cannot distinguish perfectly between the two. See the coding instrument available at [paper-URL] for more detail.
- 18 We calculated Krippendorff's alpha for all research questions coded. With the exception of the questions mentioned, all exceeded or were very close to the rule of thumb of .7. Full results of all Krippendorff's alpha calculations are available from the authors upon request.
- 19 Among the top 65 blogs, seven were in the political center, making meaningful statistical analysis difficult. These are, in order of ranking, http://www.politicalwire.com, http://www.realclearpolitics.com, http://www.balloon-juice.com, http://www.theagitator.com, and http://www.msnbc.msn.com.