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Abstract

In this article, the authors compare the practices of discursive production among top U.S. political blogs on the left and right during summer 2008. An examination of the top 155 political blogs reveals significant cross-ideological variations along several dimensions. Notably, the authors find evidence of an association between ideological affiliation and the technologies, institutions, and practices of participation. Blogs on the left adopt different, and more participatory, technical platforms, comprise 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 the sample) more often use blogs as platforms for mobilization. The findings suggest that the attenuation of the news producer-consumer dichotomy is more pronounced on the left wing of the political blogosphere than on the right. The practices of the left are more consistent with the prediction that the networked public sphere offers new pathways for discursive participation by a wider array of individuals, whereas the practices of the right suggest that a small group of elites may retain more exclusive agenda-setting authority online. The cross-ideological divergence in the findings illustrates that the Internet can be adopted equally to undermine or to replicate the traditional distinction between the production and consumption of political information. The authors conclude that these findings have significant implications for the study of prosumption and for the mechanisms by which the networked public sphere may or may not alter democratic participation relative to the mass mediated public sphere.

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blogs, politics, prosumption, social media

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 addresses the degree to which technology shapes knowledge production in a society. In this article, we contribute to both lines of inquiry through an empirical analysis of discursive practices in the U.S. political blogosphere.

Most prior empirical studies of the U.S. political blogosphere describe the left and right as relatively symmetric despite their ideological polarization (Adamic & Glance, 2005; Hargittai, Gallo & Kane, 2008; Hindman, 2008). Recently, others have observed variations in blogging practices and technologies on left and right (Karpf, 2008b; Wallsten, 2008). In this study, we compare more rigorously the practices *within blogs* on the left and right. We apply a coding instrument to assess the technologies, practices, and discursive structures of the top 155 U.S. political blogs in the summer of 2008. We then compare the results of our coding across the left and right of the political spectrum, revealing cross-ideological variations along several dimensions, all of which are central to the structure of networked discourse.

Our research speaks to three overlapping debates in the study of technology and discursive production. The first is an old debate about the level of determinism in the relationship between technology and the structure of the public sphere (McLuhan, 1962; Starr, 2005). The symmetric patterns found across political ideologies in earlier work (Adamic & Glance, 2005; Hargittai et al., 2008; Hindman, 2008) suggest that technology structures discourse. We revisit this question in light of the ongoing evolution of the blogosphere 5 years after it emerged as a coherent space of political communication.

The second major debate to which our study speaks is about the effects of the Internet on the networked public sphere. Benkler (1998a, 1999, 2000, 2003, 2006) has argued that the attenuation of the consumer-producer dichotomy leads to new, commons-based amateur information production practices, which in turn provide new pathways for participation in the public sphere and the expression of more diverse viewpoints. Our analysis inquires as to whether, to the extent this effect is occurring, its development may be uneven across the political spectrum and may depend heavily on the interaction of technological, organizational, and cultural factors.

In investigating this concern, our analysis also questions the main empirical technique used to map the public sphere online to date: domain-level link analysis. 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; Hargittai et al., 2008; Hindman, 2008). By looking within blogs, our study 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.

Third, in the context of research on prosumption, our study introduces a comparative perspective on what has previously appeared to be a relatively stable phenomenon driven by technological diffusion (Ritzer & Jurgenson, 2010; Toffler, 1980). Political blogs represent a core arena of prosumption in the domains of news media and (political) information sharing. Whereas the mass-mediated public sphere marked sharp boundaries between the producers and consumers of political news, the growth of the networked public sphere has entailed the erosion of boundaries between professional and amateur journalists as well as the emergence of new modes of grassroots political engagement (Benkler, 2006; Karpf, 2008b; Kerbel, 2009). By comparing cross-ideological participation practices in the U.S. political blogosphere, we open up the possibility that the wider shift to prosumption and its attendant implications for capitalism, democracy, and knowledge production may not follow an even trajectory.

Our methodology, building on several predecessors (Hargittai et al., 2008; Karpf, 2008b; Wallsten, 2008), captures a layer of nuance unavailable to studies based solely on link analysis. For example, link analysis 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 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 more than 300,000 registered users, more than 3,000 daily active users, dozens of substantial editorial-style contributors and editors, and a flow of daily writing from hundreds of participants.¹ 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.

Although these two top sites are selected for dramatic illustration, our methodology and sample, the largest examined to date, enables us to determine whether they are outliers. In particular, our approach allows us to investigate the extent to which blog user-producers can play a more significant role in reshaping the networked public sphere relative to their passive role as consumers in the mass-mediated public sphere. Additionally, we investigate whether the already-mythical Obama online campaign may have capitalized on immanent practices in the left wing of the blogosphere. Finally, our analysis promises insights into how different patterns of technological adoption and use within a single society may produce distinct effects on the extent to which social and peer production, or prosumption, develop in a networked information society.

Background: The Internet, Democratic Participation, and Prosumption

Analysis of the effects of the structure of Internet-mediated discourse on democracy and the public sphere dates back to early 1990s, a time of significant utopianism. This utopian spirit is best captured 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. American Civil Liberties Union*, 1997)

Nicholas Negroponte touted the benefits of the knowledge we would acquire, coining the metaphor the “Daily Me” to describe the information collection we would teach our computers to perform for us (Negroponte, 1995). Benkler, on the other hand, emphasized the change in modes of information production, arguing that radically decentralized, commons-based production by once-passive consumers would enhance participation and diversity of views (Benkler 1998a, 1998b, 1999, 2000). Soon thereafter, however, Cass Sunstein (2002) expressed concerns about the excesses of the Internet, flipping Negroponte’s Daily Me on its head and arguing that it would lead to fragmentation, polarization, and the destruction of the possibility of common discourse in the public sphere.

This first generation of arguments was based largely on anecdotal evidence; however, beginning in 2001 and 2002, scholars began applying network analysis to study hyperlink patterns and to characterize the networked public sphere as a whole. This quantitative work focused on two concerns: whether the Internet altered levels of discursive participation and deliberation. The primary argument that the Internet decreased discursive participation claimed that the “power law” distribution of links into sites prevented all but a very few sites from being observed (Barabási, 2003; Hindman, 2008). On the other hand, Farrell and collaborators observed that blog readers are particularly “activated,” reporting high degrees of political participation in surveys (Drezner & Farrell, 2008; Lawrence, Sides & Farrell, 2010). Interpreting link analysis data, Benkler (2006) argued that participation increased to the extent that individuals could contribute to debates directly or through someone they knew directly. By contributing to blogs that are part of tightly clustered communities of interest, Benkler claimed that less well-known individuals could attract attention from ever-larger attention clusters and communities. Wallsten’s analysis of agenda setting and the blogosphere during the 2004 campaign provided 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 as elite as those of the most exclusive editorial pages of the country’s newspapers. Sunstein (2002, 2007), meanwhile, emphasized the risk that the Internet could undermine deliberation. Adamic and 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; however, Benkler (2006) disputed whether linking across the divide in one out of six cases should be interpreted as evidence of polarization and fragmentation. The only study combining link analysis with content analysis (Hargittai et al., 2008) showed that many of the links across the

divide involved substantive argument and that the two sides of the blogosphere did not exhibit greater insularity or polarization over time.

Link Analysis and Symmetric Blogospheres

Throughout the early period of political blogosphere research, studies treated the domain space of all blogs as comprising homogeneous units of analysis and, using this framework, found the left and right wings of the blogosphere to be largely symmetric. One early exception to this tendency was a report by Bowers and 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, they argued that elite blogs on the right reproduced an integrated, top-down approach to political messaging that reinforced offline communities and organizations, whereas elite left-wing blogs took a more participatory approach to building new political communities (Bowers & Stoller, 2005, pp. 4-5). Their report, however, neither engaged nor infiltrated academic debates on the subject. As a result, the “symmetric blogospheres” argument remained in place.

Link-based network analysis has appeared to confirm the symmetric blogospheres argument. In this approach, analyzing the network graph of blogs through hyperlinks has entailed interpreting blog domains as discrete speakers. Each blog domain (for example, <http://www.hotair.com> or <http://www.mydd.com>) represents a node in the graph that stands for the networked public sphere, and interdomain links represent conversational moves as well as attention to statements. Thus, a low link count into the blog domain means low attention levels to statements made on that blog. Only links *between* domains, in this approach, count as attending to what is said. Internal discourse among users of the same blog does not count, because it is not counted.

Treating each blog as one node has masked important differences. Hindman's (2008) argument about the replication of media elitism in the blogosphere illustrates this point. Hindman analyzes 75 individual top bloggers (e.g., Markos Moulitsas Zúñiga of DailyKos.com and Glenn Reynolds of Instapundit.com) and 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, gender, and race. Enhanced democratization of the networked public sphere is, according to this view, a myth (Hindman, 2008). The problem with this claim is that it rests on the assumption that a platform hosting substantive contributions from thousands of users every day (Daily Kos) represents an identical unit of analysis to a site authored by a single individual (Instapundit). This interpretation misses a core attribute of blogosphere discourse. It overlooks the discrete communications, such as the blog post itself, comment, or forum thread, and many of the speakers—blog users—who congregate in a domain.

In effect, the resolution of the standard tools used in link analysis studies was too low to show the diversity of the networked public sphere. As we indicated above, the consequence of the low resolution has been that prior studies portrayed the left- and

right-wing blogospheres as mirroring each other in most respects. Although Adamic and Glance (2005) find that right-wing bloggers linked to each other, to external sources, and across the ideological divide more than the left-wing bloggers, the magnitudes of the differences are relatively small, and they interpret their findings as suggesting that the two sides of the blogosphere do not differ much.

The Significance of Intra-blog Variations

By contrast, the importance of increasing the level of resolution is shown most clearly in Hargittai et al. (2008). Their link analysis confirms the patterns of linking behavior across the political divide observed by Adamic and Glance (2005), but they then use content analysis to show that the prior interpretations of this linking pattern, polarization and fragmentation, are false. By increasing the resolution—analyzing the content of the actual statements—they showed that many statements across the political divide are substantive and that positions expressed on the left and the right do not become more extreme over time. The results of their study also imply that an analysis of the socioeconomic status of privileged speakers within each site is not sufficient to understand their role within the networked public sphere as a whole.

We extend the existing methodological critiques of link analysis of the U.S. political blogosphere by looking closely at within-domain practices. 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 could increase or decrease democratic participation relative to the mass-mediated public sphere.

Since we designed and implemented this study, several publications have further contradicted the picture painted by the earlier symmetric blogospheres research. During the 2008 electoral cycle, Karpf (2008b) and Wallsten (2008) observed two areas of variation across right and left that prefigure our own research design and findings.³ Karpf (2008b, pp. 379-381) conducts a qualitative analysis of a smaller sample ($N = 50$) of elite blogs on the left and right and describes variations in blog structure, concluding that the top blogs on the left offer enhanced opportunities for community engagement in comparison with top blogs on the right. Wallsten (2008), by contrast, conducts a descriptive content analysis of 5,000 random posts drawn from 16 “A-list” U.S. political blogs and 5,000 random posts drawn from 147 randomly selected U.S. political blogs. He reports more widespread use of blogs for mobilization and participation on the left than on the right. Building on both of these findings, Kerbel’s (2009) monograph on “the netroots” embraces a similar set of distinctions between left and right.

The differences between our study and previous works finding cross-ideological variation among U.S. political blogs are both methodological and theoretical.⁴ We analyze the largest number of blogs to date and are the first to develop a critique of link analysis, standing alone, as the core approach to analyzing the networked public sphere. Our present analysis does not shed light on either the quality of deliberation or

the extent of polarization in online discourse, but those cannot be the sole theoretical touchstones of analysis 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. A wider range of democratic theories asks who has the opportunity to be heard and to convert a particular matter of concern into a credible item on a society’s political agenda (Baker, 2001). Our research operationalizes these questions of participation. 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 mobilization, sociotechnical affordances that allow interest groups to develop their own agendas, and then convert them into public action, can enhance democracy. To the extent that participation can be squelched by existing structures of political, economic, and cultural power, organizational pathways around these blockages may support effective participation by people historically excluded from setting the public agenda. The creation of such pathways could improve the openness of the public sphere to views and agenda-setting efforts outside the traditional sources of discursive and cultural power. In particular, these pathways might enhance the participation of Internet users who in the past were consigned to the role of passive consumers. In this regard, it is critical to investigate whether the Internet can be used to enhance the available *opportunities* for democratic participation and engagement while recognizing that opportunities alone are not equivalent to deeper forms of institutionalized social transformation.⁵

Technological Determinism and Prosumption

Our study also speaks to concerns beyond the study of democracy and the public sphere. First, it speaks to an older debate in communications theory: the degree to which a communications technology determines how knowledge is produced, controlled, and used in a society. Media determinism, the view that the material characteristics of a given technology structure its use, is anchored in Marshall McLuhan’s (1962) work as well as that of Harold Innis (1951), who argued for the centrality of media to structures of political power and authority. Although few academics today subscribe to McLuhan’s strong-form deterministic view, it continues to exert influence in popular and nonacademic policy circles.

More common is a range of views from “soft” determinism to more thoroughgoing institutionalism. Soft determinism emphasizes how the technical affordances and constraints of a technology affect its likely patterns of use, interacting with, and sometimes even shaping, other forces that structure discourse in a given period (Beniger, 1986; Eisenstein, 1979; Innis, 1951). By contrast, institutionalism emphasizes the organizational, legal, and political decisions that surround the use of a communication technology (McChesney, 1993; Starr, 2005). The division is clear in theory, but few today hold a simple, single-cause view of either form, and a large body of work focuses

on the mutual shaping of technological, political, organizational, and cultural forms (Barnouw, 1966; Benkler, 2006; Castells, 1996; Habermas, 1962; Winner, 1986).

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 of interest in this case, the weblog, offers a wide range of flexible affordances. Within the U.S., it has been implemented in a legal framework that neither determines nor substantially narrows its use. Likewise, the organizational forms for control of blogs do not tend to constrain their use. All these historical facts about the way the Internet has been deployed and adopted are susceptible to 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 for political blogs relatively open. By comparing technical, organizational, and institutional aspects of political blogs, 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.

Finally, our study also contributes to the emerging sociological literature on prosumption, providing insight into the interaction between technology, organization, and culture and the attenuation of the production-consumption dichotomy. The futurist Alvin Toffler (1980) introduced the concept of prosumption, or the idea that the stark separation between production and consumption created by the industrial revolution is coming to an end and is being replaced by a more integrated practice. Toffler based this claim on early trends in physical-world do-it-yourself and self-service experiments in service and maintenance industries. Whereas Toffler viewed these trends as both new and liberating, George Ritzer has argued that incorporation of the consumer into the capitalist production process has a much longer history and is a means of exploiting the labor of consumers as well as that of workers (Ritzer, 2009). At the same time, Ritzer and Jurgenson (2010) have argued that online prosumption presents a more ambivalent case. In the digitally networked environment, decentralized production, both individual and collaborative, began to emerge independent of corporate control and, at times, in opposition to it. The liberating and democratizing potential of these trends were espoused earliest in popular writings by technologists (Kapor, 1993).

In legal academia, commons-based production online became a major subject of debate in response to proposed extensions of proprietary controls in intellectual property and telecommunications law introduced by incumbent industries to tame emerging practices of unauthorized sharing and nonproprietary production. A number of legal scholars criticized these efforts through the investigation of commons-based production, touting its importance to democracy, freedom, innovation, economic growth, and cultural creativity (Benkler, 1998a, 1998b, 1999, 2000, 2003, 2006; Boyle, 2003, 2008; Lessig, 2001, 2008; Litman, 2004; Moglen, 1999; Vaidhyanathan, 2004). The rise of free software played a critical role in legitimating nonproprietary production and blurring the boundaries between producers and consumers (or professionals and amateurs) who collaborated on the Internet (Lakhani & von Hippel, 2003; Moglen, 1999; Moody, 2001). Benkler (2002) coined the term "peer production" to describe

the range of activities encompassed by these phenomena and argued that such large-scale, cooperative enterprises could outperform market-based and hierarchical organizations. In particular, Benkler (2006) argued that the increasing effectiveness of peer production of news and commentary allowed a wider range of views to enter the public sphere than mass media that depend on highly capitalized platforms and organizational models aimed at attracting the mass audiences necessary to cover high production costs.

Our study calls into question the idea that rise of peer production or prosumption on the Internet proceeds in an undifferentiated fashion. Blogging technology provides affordances that support effective, sustainable, commons-based production, but these affordances can be adopted and adapted at different rates, by different segments of the population, leading to social practices with divergent implications for democracy, prosumption, and the public sphere. Depending on the extent to which specific social groups embrace the democratic and nonmarket affordances of prosumer technologies such as blogging, social and peer production could facilitate greater freedom and participation, or these practices could bring about the incorporation of prosumers into traditionally exploitative models of media production.

Data Collection and Method

To test for differences in the collaborative and discursive practices across top U.S. political blogs, we designed a content analysis instrument. We then selected 155 top political blogs and coded them using the instrument during a 2-week period in early August 2008. Following the completion of coding, we categorized the political orientation of the blogs in our sample and compared the results across ideological groups. Here we describe our key concepts and variables, coding scheme, sampling procedure and analytical techniques.⁶

*Instrument Design*⁷

The coding instrument and procedure we use applies techniques typical of content analysis (Krippendorff, 2004). The instrument captures information related to our research questions about the blogs' organizational form, community of participants, content, and technological architecture. Our questions focus on stable, structural attributes of each blog, avoiding time-sensitive elements of the text and hyperlinks. In particular, our variables analyzed (a) the relative accessibility of different kinds of blog content, (b) the boundaries between content produced by site elites and other users, (c) technical features that offer enhanced opportunities for participation, and (d) the predominant styles of different kinds of content on each blog.

In terms of content accessibility, we term content accessible on the front page of a site "primary," and everything that requires additional clicks to reach "secondary." This definition extends Hargittai's (2000) distinction between *accessible* and *available* online content, reflecting her finding that only a small minority of Internet users

look past the first page of search results. In the realm of political blogs, many sites with multiple authors contributing posts, comments, or forum threads reserve the front page for high-status authors and posts, creating a core-periphery distinction among participants on a site. The primary-secondary content distinction therefore allows us to evaluate the degree to which contributions by people other than the owners, operators, or core authors of a site are accessible.

The primary-secondary content distinction also 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. Frequently, a combination of technological and social affordances keeps primary content insulated from secondary content. However, some blogs retain extremely *rigid* barriers between user-generated contributions (whether in the form of comments, internal blogs, or forums) and “authorized” primary content. At the other end of the spectrum, a few sites make no distinction between any of the content contributed by all users of the site, resulting in a completely *permeable* boundary between primary and secondary content. As a result, for each blog in our sample, we evaluate the extent to which boundaries between primary and secondary content types are rigid or permeable.

We also categorize whether the blogging platforms used by the sites in our study include enhanced technical affordances for collaboration, participation, and discussion. We count any of the following technical tools as enhanced: 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 blogging software, and we do not count them as enhanced. In this regard, our coding mirrors the categories developed independently by Karpf (2008b).

Finally, we characterize the predominant style of primary and secondary content appearing on each blog as well as the extent to which the blog engages in explicit campaign mobilization or fund-raising activities. These questions take the form of a qualitative assessment of the most recent posts and comments available on each site at the time of coding. Given the limitations of this assessment, we interpret the results of these variables with care.

Sample Selection

We generated a sample of top U.S. political blogs by aggregating seven existing lists of “top political blogs” from six different sources (see Table 1).⁸ Roughly speaking, if a URL appeared on more than one list, we judged it more likely to be both a blog and more influential. Our selection followed the work of previous blogosphere research in this regard (Adamic & Glance, 2005; Hargittai et al., 2008; Wallsten, 2007).⁹

We ranked the URLs in our aggregated list on the basis of the number of original listings in which they each appeared. Then, we applied a further set of selection criteria to the ranked aggregated list. To be included in our sample, a URL had to

Table 1. Sources of Political Blog rankings

Source	URL	Date accessed
Yahoo.com	http://dir.yahoo.com/Government/Politics/New_and_Media/Blogs	March 14, 2008
Technorati.com	http://www.technorati.com/blogs/directory/politics	March 14, 2008
Campaigns and Elections	http://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://truthlaidbaear.com/ecotraffic.php	May 23, 2008
Blogrolling.com	http://www.blogrolling.com/top.phtml	July 10, 2008
Morningside Analytics	Not applicable (personal communication)	July 28, 2008

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 our coding,
3. contain content that predominantly and/or consistently addressed U.S. political issues, and
4. contain at least one page visible from the listed URL labeled or described as a “blog.”

The resulting list contained a total of 165 URLs, 10 of which were later discovered to be duplicates and excluded, leaving the total number of unique blogs in our sample at 155.¹⁰

It is important to underscore a few characteristics of our sample. First, even though it includes more than 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 regularly address political topics. 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” distributions (Adamic & Huberman, 2000). Given the unequal distribution of attention, our sample likely accounts for an extremely high proportion of the total number of site visits and in-links in the U.S. political blogosphere.

Coding Procedure

Two coders applied the instrument to our sample during the first 3 weeks of August 2008. As in Hargittai et al. (2008), we chose this relatively slow period in the presidential

campaigns to avoid major political events. We randomly assigned a set of 129 URLs to each coder, including a randomly chosen overlapping subset of 42 URLs, which we then used to test intercoder reliability. For each URL, coders confirmed that the site met the criteria for inclusion in our study and then applied the coding instrument.¹² 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, using the same criteria for left and right applied by Hargittai et al. Blogs that did not demonstrate explicit signs of partisanship or demonstrated equal representation of left and right views were coded as center. This coding of ideology took place after the completion of our substantive coding so as to prevent the labels from influencing the assessment of the sites. To ensure that this process did not introduce bias into the ideological codes, another researcher randomly checked Shaw's codes against prior studies (Adamic & Glance, 2005; Hargittai et al., 2008) as well as the independently labeled list of blogs from Morningside Analytics used in our sampling procedure. Our sample broke into 65 and 67 blogs on the left and right, respectively, and 23 in the center.¹³

Statistical Tests¹⁴

For each question in the codebook, we created a contingency table of responses by ideological affiliation and tested whether there was a significant difference in the distribution of responses by affiliation. Our null hypothesis was that there is no difference in response based on affiliation. As is typical for a contingency tables, we test using 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. As previous literature suggests a power law distribution of traffic, links, and attention in the blogosphere, we also hypothesized that the characteristics of the higher-ranked blogs might have been significantly different from those ranked lower and therefore created a second smaller sample from those URLs that appeared on only five or more of our seven lists of the top political blogs (Adamic & Huberman, 2000; Drezner & Farrell, 2008; Shirky, 2008, p. 46). As a result, we repeated the left-right analysis for these 65 super-elite blogs. Finally, for all questions in our instrument, we calculated Krippendorff's (2004) α measure of intercoder reliability.¹⁵

Results

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

Table 2. Technology Adoption and Participatory Affordances

Variable	Left	Right	p value
Platform^a			
Enhanced	20	7	.0021
Standard	27	46	
User blogs			
Available	14	4	.00187
Unavailable	51	63	
Content boundaries			
Flexible	14	6	.0762
Rigid	51	61	

^aMissing data from 32 blogs because of nonstandard platforms.

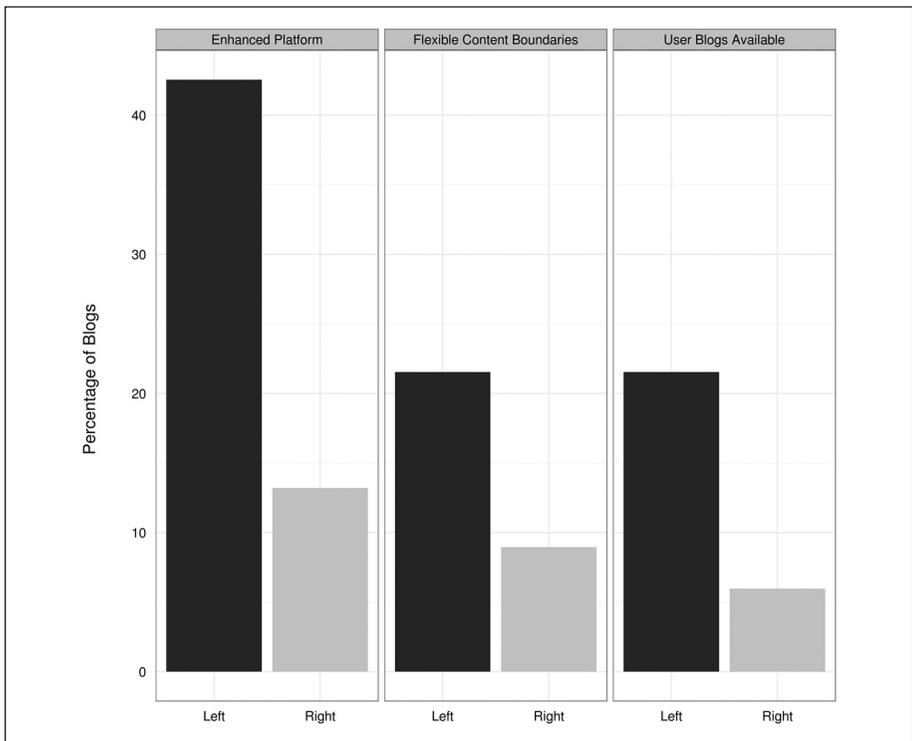


Figure 1. Technology Adoption and Participatory Affordances

Table 2 and Figure 1 shows the raw and proportional differences in the use of enhanced blogging platforms by left and right.¹⁶ Close to half (46%) of blogs on the

Table 3. Site Governance

Variable	Left	Right	<i>p</i> value
Individual	13	27	.0157
Multiple	51	38	

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, an even larger difference separates the two sides' active implementation of user diaries or blogs (22% vs. 6%). The distribution of flexible content boundaries is nearly identical (22% vs. 9%).

The differences in technological platform and tool adoption across the left and right reflect a related distinction in the organizational structure of sites. Here the left and right differ as well, with the left tending toward 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 versus 20% on the left (Figure 2).

We find no difference in the use of comments or forums but a significant difference in user blogs, which are more widespread on the left than the right (Table 4 and Figure 3). This technical affordance, in turn, makes it easier for left-wing blogs to generate secondary content containing sustained writing, reporting, and opinion and make this content 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, whereas the right adopts practices that more strictly separate secondary from primary content (see Table 2 and Figure 1).

Another aspect of political blogs' discursive culture concerns the writing style and depth of analysis. Here, we encounter an additional significant difference between the left and the right: Primary authors on the left tend 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). We note, however, the substantial overlap; mixed practices occur on two thirds of the sites. More fine-grained analysis might explore possible differences between left and right in this area.

The final piece of the puzzle relates to efforts to convert participation in discussion into political mobilization. Here, we find no variation across left and right blogs within the sample as a whole but a significant difference between the top 65 super-elite blogs on the left and the right along dimensions related to mobilization (Table 6 and 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, to participate in letter-writing or phone-banking campaigns, to raise funds, or to attend protests.¹⁷ As the distributions in Table 6 reveal, much of the disparity between the presence of calls to action on the right and left stems

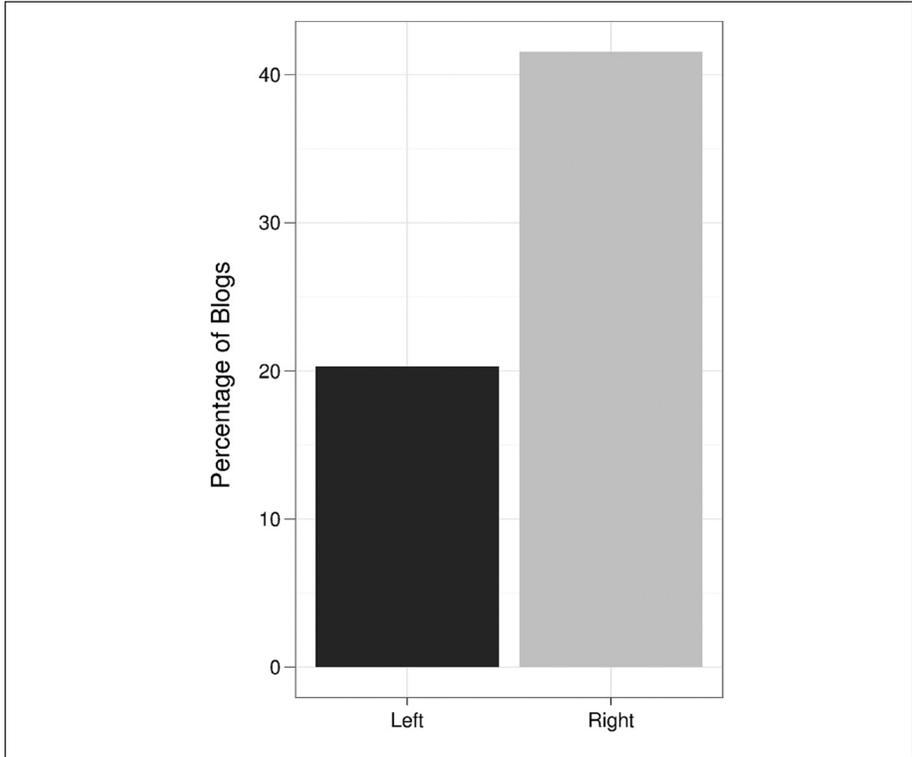


Figure 2. Individual Governance

from the prevalence of campaign fund-raising efforts on the left.¹⁸ Relatively low intercoder reliability for these questions indicates that the results should be treated cautiously (Krippendorff, 2004).¹⁹ However, the differences are significant and consistent with the patterns revealed by the rest of our findings.

Discussion

Figure 6 summarizes our results. 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, comprise 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 our sample, use blogs as platforms for mobilizing action as well as engaging in public political discourse.

These differences speak directly to the debates about the effect of the Internet on democracy and the structure of the public sphere. The left adopts technical platforms

Table 4. User-Generated Content Opportunities

Variable	Left	Right	p value
Comments			
Available	56	7	.9430
Unavailable	9	46	
Forums			
Available	7	10	.6507
Unavailable	58	57	
User blogs			
Available	14	4	.0187
Unavailable	51	63	

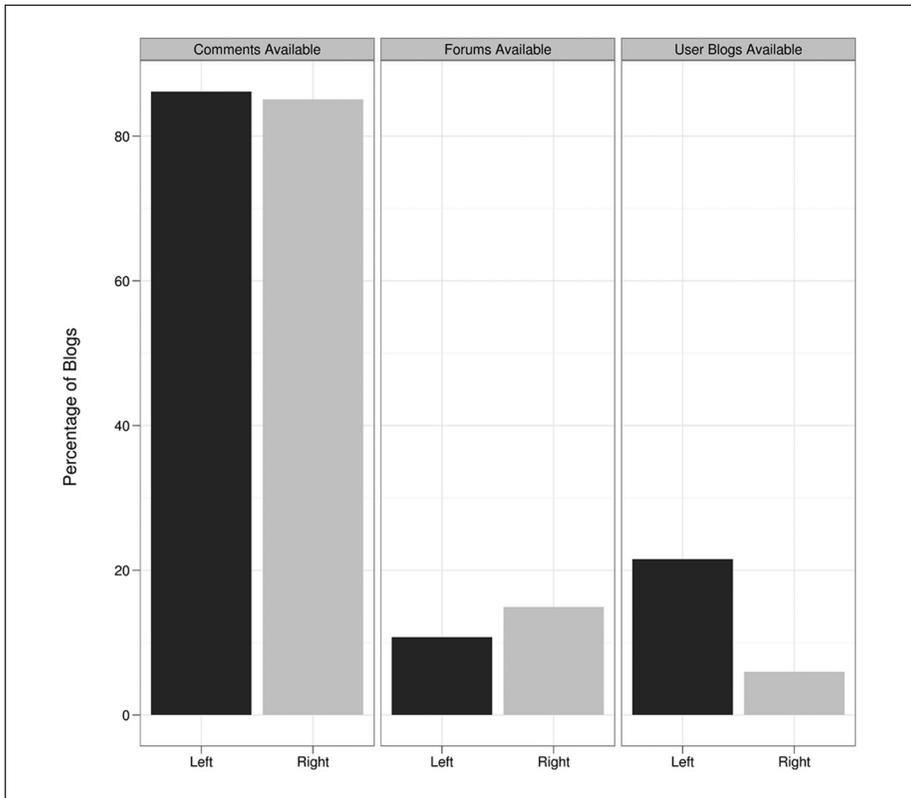


Figure 3. User-Generated Content Opportunities

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

Table 5. Primary Content Authorship and Style

Variable	Left	Right	p value
Authorship			
Solo (1)	17	28	.0687
Multiple (2-20)	37	34	
Large-scale collaboration (>20)	10	4	
Predominant style			
Links and minimal analysis	6	15	.0387
Mixed	43	44	
In-depth analysis	16	8	

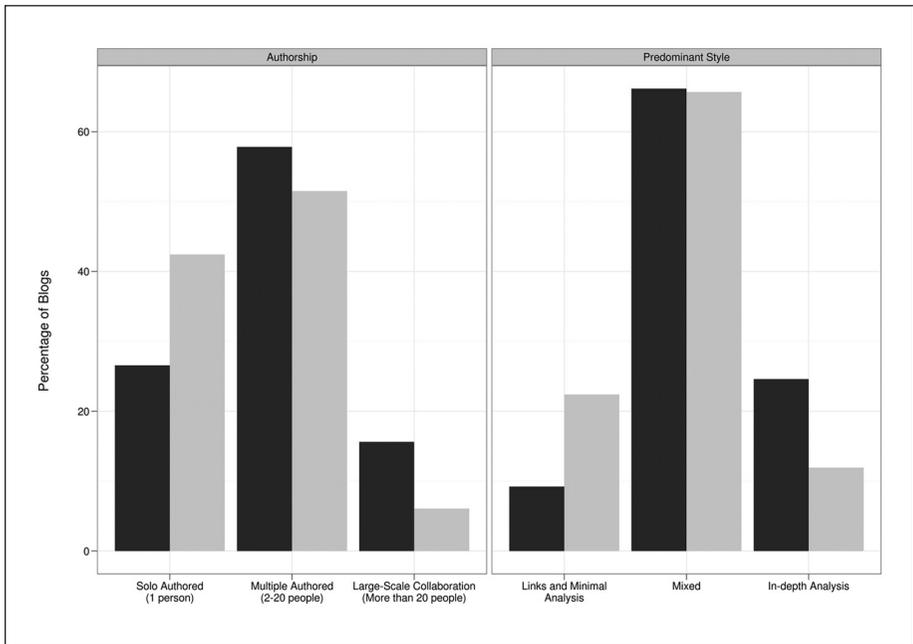


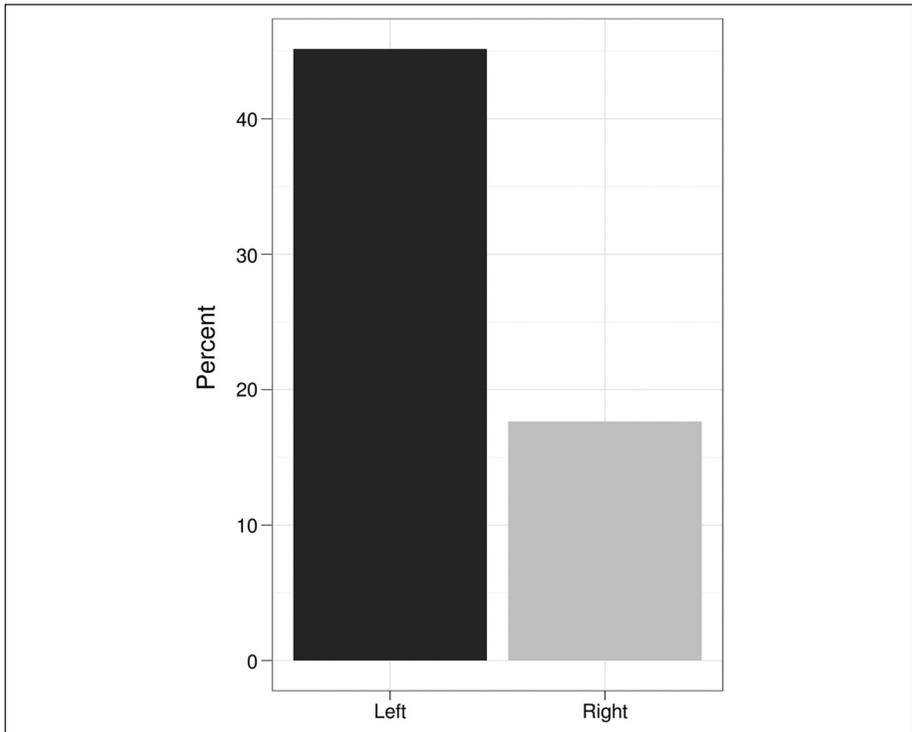
Figure 4. Primary Content Authorship and Style

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 of engaging in discussion or commentary. We do not contend that these characteristics are inherently correlated in

Table 6. Mobilization (Top 65 Blogs Only) Calls to Action and Fund-Raising

Variable	Left	Right	<i>p</i> value
Calls to action			
Present	14	6	.0330 ^a
Absent	17	28	
Fund-raising			
Present	14	2	.0076 ^a
Absent	51	32	

^aIndicates low intercoder reliability.

**Figure 5.** Calls to Action and Fund-Raising (Top 65 Blogs Only)

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 attributes characterized the left and right, respectively. The differences offer evidence of a nondeterministic relationship between the emergence of a technology, its adoption patterns, and the political implications of these adoption patterns.

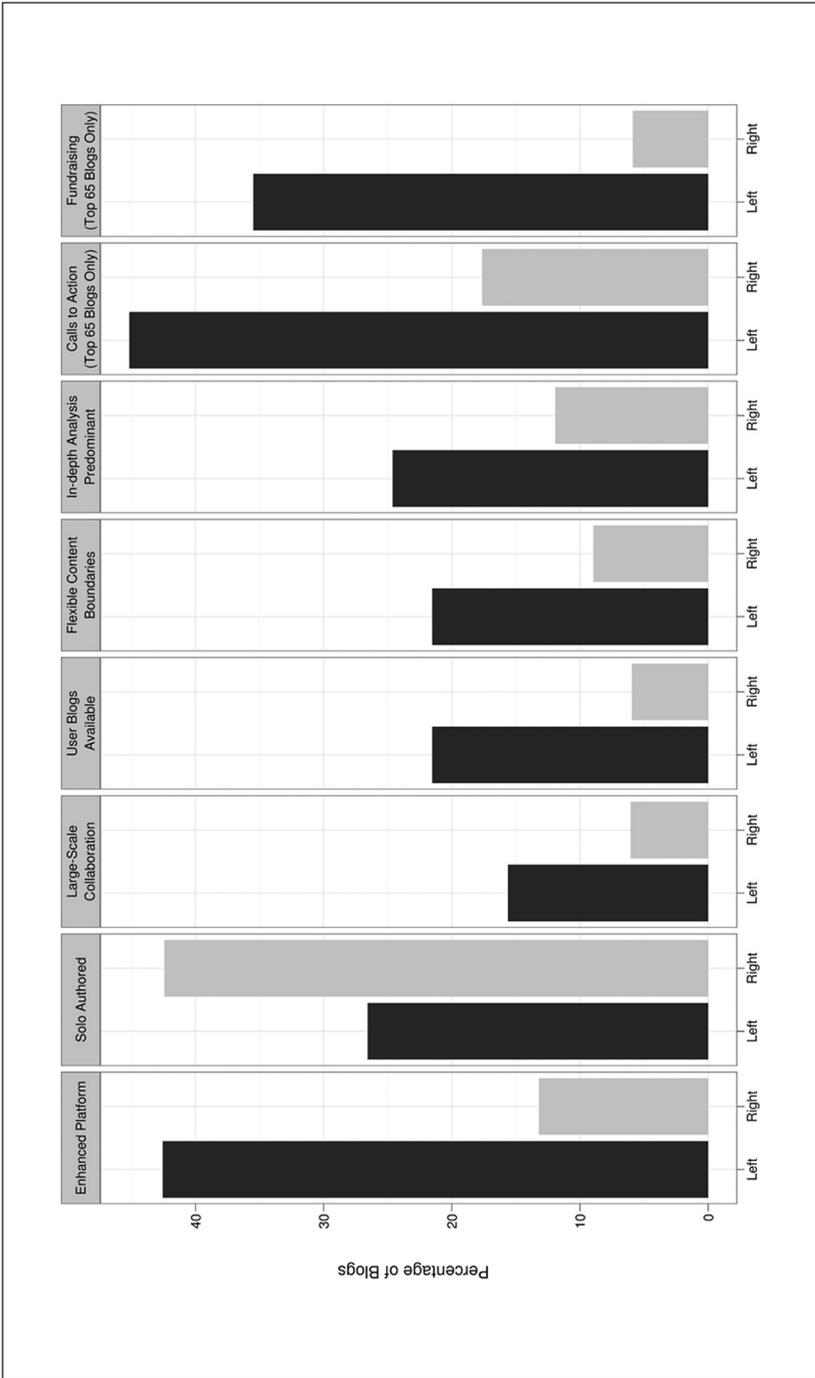


Figure 6. Summary of Significant Differences

Our findings on content boundaries are important for two reasons. First, a critic of our coding scheme might argue that we are too dismissive of the participatory potential of comments and forums and therefore are biasing our findings “against” the forms of participation favored by right-wing blogs. However, examining not only the prevalence of different features but also the institutionalized permeability of the boundaries between primary and secondary content, we see that the prevailing pattern of information flow on the right-wing sites is structured to be less fluid, leaving user-contributed statements on the periphery of the conversation. Powerline (<http://www.powerline-blog.com>), one of the most popular blogs on the right at the time of our coding, 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 and the location of all secondary content contributed by noncore participants, but no technological affordance makes it possible for noncore 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. Although several sites on the right maintain highly participatory platforms and flexible content boundaries—the Free Republic Forum is one example—these are exceptions and not the rule.

Second, this finding emphasizes for us that even when technology allows the easy integration of collaborative features, cultural or organizational practices may work at cross-purposes. One example of this is TownHall, a right-wing site that enables 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 environment 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 noncore contributions. Personal e-mail communications with primary authors, perhaps the least visible form of participation, can be integrated into any form of primary content.²⁰ In other words, whatever the technological affordance, it is embedded in a social-cultural practice, which in turn can amplify or muffle participation.

Conclusions

Our study suggests that the effects of the Internet on democracy and presumption are not homogeneous and may change over time. The practices of the left blogosphere are more consistent with an interpretation of a participatory public sphere and a steady expansion of presumption practices. The practices of the right blogosphere are, however, more consistent with the claims that the networked public sphere is no less elitist than the mass-mediated public sphere. The emphasis in current analyses on the power law distribution of blog links, coupled with the claim that only primary content authors are visible, understates the importance of participatory practices within some blogs. Similarly, any effort to characterize the socioeconomic 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. If tens or hundreds of thousands of people in a population access a platform such as this, they are likely much closer to a visible media outlet than before.

The political blogosphere may play a different role for the left and the right. The right seems to focus more heavily on blogs that filter content produced by others and provide links to it. This may explain why right-wing blogs have been observed to link more often than left-wing blogs (Adamic & Glance, 2005). On the left, by contrast, primary content tends to be longer, consisting of more elaborate reporting and opinion. This may, in turn, be consistent with less linking. Whether the content of these longer contributions is substantively different from what was found on mainstream media sites is a topic for further research and will require more robust text analysis. In effect, readers on the right are treated more as traditional media consumers: They play a relatively passive and marginal role in producing the primary content, and the primary content itself consists more predominantly of amplification of news content itself produced in the traditional model. Users on the left have a more active, productive role, blurring the production-consumption distinction and, through this, increasing the probability that the left wing of the blogosphere incorporates a wider range of views than a more centralized model.

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 should combine better means of tracking influence with more nuanced measures of participation and engagement beyond the evidence we have presented here (Barzilia-Nahon, Hemsley, Walker, & Hussain, 2011; Karpf, 2008a, 2008b; Wallsten, 2007).

A second, methodologically important conclusion is that link analysis, as it has been used to map the networked public sphere, has limitations for analyzing pathways to participation. Studies based on link analysis disagree about some questions, but they portray a symmetric political blogosphere (e.g., Adamic & Glance, 2005; Barzilai-Nahon et al., 2011). Our study, together with the work of Karpf (2008b) and Wallsten (2008), shows that this supposed symmetry is misleading. It raises a concern with link analysis that looks at the shape of the blogosphere as a whole by treating the entire blog domain as the node, effacing the level of the individual post, the individual author, and the internal workings of discrete blogs. All of these levels and 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 constitute the structure of the public sphere. We cannot make claims about what causes these diverse elements

to cohere in the case of the left and right political blogospheres; however, we can point to particular variations to suggest that significant differences are sustained.

Last, our findings underscore the nondeterministic nature of the potentially broader transition to prosumption. Insofar as the news media constitute a political institution that may or may not reinforce the underlying political and economic power structure of a society, the uneven trajectory of prosumption practices that we observe on the left and right in the networked public sphere of the United States implies divergent social outcomes (Schudson, 2002). As a result, we conclude that the effects of prosumption and commons-based production on postindustrial capitalism, electoral democracy, and the media ecosystem remains uncertain and can be settled only through the interplay of complex social forces over time. In other words, the future history of these phenomena has yet to be written.

Although the left wing of the blogosphere exhibits stronger indicators of mobilization and organization for action, we cannot say whether the left's use of more participatory and discursive platforms causes this trend. Blog users who are more engaged on a day-to-day basis could be more amenable to mobilization for action (Lawrence et al., 2010). But the unequal levels of mobilization may also reflect the fact that we took our observations during an election cycle when the left was highly energized, whereas the right, just before Sarah Palin's appointment as John McCain's running mate, was more lethargic. Differences in the blogosphere may also reflect the differences between Democratic and Republican online mobilization during the 2008 campaign as a whole (Smith, 2009). Although these facts do not affect our core findings, they moderate our confidence in the stability of the difference with regard to mobilization. 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 nonparticipatory population. Wallsten's (2008) similar findings based on 2004 data reinforce this view. We believe that more robust comparisons of the content of blog posts with regard to various forms of mobilization offers a promising avenue for follow-up study.

What would account for the different patterns of weblog use on the left and the right? It cannot be one of the factors shared across the ideological divide, such as 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 ties political views to personal characteristics, such as work by psychologists that explains variations in political belief through divergent psychological needs and moral foundations (Haidt, Graham, & Joseph, 2009; Jost, Glaser, Kruglanski, & Sulloway, 2003). In addition, cultural cognition research has found that people form beliefs about facts and circumstances in ways that fit their values, imposing cognitive structures of belief along two axes: individualist-communitarian and hierarchical-egalitarian (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 where, for example, opponents of gun control and environmental regulation often reside (Kahan et al., 2007). The right's relatively limited integration of user contributions is consistent with readers or users who seek an authoritative voice, consistent with claims by Jost and colleagues (2003) as well as findings from moral foundations research (Haidt et al., 2009) on the psychological orientations and narrative preferences of conservatives. The more egalitarian, participatory practices on the left require tolerance for the unpredictability of open and fluid discourse.

An alternative explanation would be more historically 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 to 2004), the American 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 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 lacked clear community-based structures of participation (Bai, 2007; Moulitsas Zúñiga, 2008). Many individuals on the left felt alienated from the structures of power within the Democratic party (Armstrong & Moulitsas Zúñiga, 2006). In these conditions, it is perhaps not surprising that the right wing of the blogosphere would place less of an emphasis on building participation online, whereas the left would seize on the affordances of the new medium to build platforms for active engagement and mobilization (Bowers & Stoller, 2005; Karpf, 2008b; Kerbel, 2009). Certainly, this story is consistent with the self-understanding of major bloggers on the left (Armstrong & Moulitsas Zúñiga, 2006; Bowers & Stoller, 2005; Moulitsas Zúñiga, 2008). 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.

A third explanation is 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 more actively engaged online may be attracted to technologies that embrace higher levels of user engagement. However, we do not find this explanation compelling for several reasons. First, Smith (2009) also 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. Likewise, Lawrence et al. (2010) find evidence of a very small age difference, on average, between blog readers and nonreaders. 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 1st-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 evidence thus suggests 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 dimensions will be necessary to understand the implications of these findings more fully.

Divergent adoption patterns of a given technology are not new. 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 tend to have their own inertia. But the debates about the degree to which the Internet enhances democratic participation or leads to a transformation in the media ecosystem of the United States 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.

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Notes

1. Statistics taken from “High Impact Diaries” column by Daily Kos user “jotter” on May 1, 2011, available at <http://www.dailykos.com/story/2011/05/02/972252/-High-Impact-Diaries:-May-1,-2011>.
2. Wallsten (2007) draws mixed conclusions in this regard. On one hand, he claims that blogs perform an influential role in the public sphere vis-à-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.
3. Wallsten’s (2008) work was based on 2004 data and was released early in 2008, at which time we had already completed our study design. Karpf’s (2008b) paper was not published until December 2008, after the completion of our data collection and analysis.
4. To summarize these differences briefly, neither Karpf (2008b) nor Wallsten (2008) reports methods that control for coder reliability (see Krippendorff, 2004), nor do they conduct formal hypothesis tests of the variations they report.
5. It is important to underscore the contingencies implicit in this claim. Previous work on the “participation divide” shows that the existence of participatory affordances does not ensure that such affordances will be adopted or will undermine existing social inequalities (Hargittai & Walejko, 2008).
6. An expanded discussion of our methods appears in Appendix I available at http://cyber.law.harvard.edu/publications/2010/Tale_Two_Blogospheres_Discursive_Practices_Left_Right.
7. The coding instrument is available on the Berkman Center website (see note 6 for the URL).
8. The site we used twice was The Truth Laid Bear, which publishes separate in-links and site traffic lists. Because the author of this site, N. Z. Bear, does not separate political blogs, we reviewed 100 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 two coders found that it contained some political content (excluding advertisements) on its front page.
9. For another approach to ranking top blogs, see Karpf (2008a, 2008b). Our method produced nearly identical results insofar as we captured the vast majority of his top blogs in our sample.
10. The resulting list of blogs included in our study is in Appendix III (see note 6 for the URL).
11. The Democratic National Convention took place several days after our coding, August 25 through 28.
12. 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. After coding, Shaw settled any conflicting codes by reviewing each conflict by hand and, wherever possible, revisiting the site in question.
13. The small number of blogs in the center made it impossible to calculate valid statistical tests across the three groups for the majority of our variables. As a result, we report the results and analysis of the center blogs in Appendix II (see note 6 for the URL).
14. We used R to conduct all statistical tests. Copies of the data and code are available by request.

15. Unless otherwise noted, Krippendorff's α exceeded or was very close to the rule of thumb critical value of .7. Full results of all Krippendorff's α calculations are available from the authors by request.
16. All of the plots were produced in R using the ggplot2 package (<http://had.co.nz/ggplot2/>), created by Hadley Wickham (2009). For the online version of the article, the color scheme was generated using ColorBrewer2 (<http://colorbrewer2.org>), created by Cynthia Brewer and Mark Harrower.
17. 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. See <http://www.burntorangereport.com/showDiary.do?diaryId=6475> (accessed December 9, 2008).
18. Our measure of calls to action did not include fund-raising per se but focused on offline events, such as phone banking, rallies, and other forms of volunteer participation. At the same time, because so many offline forms of participation are also fund-raising activities, we cannot distinguish perfectly between the two. See the coding instrument available in Appendix II (see note 6 for the URL).
19. Krippendorff's α was below .7 for these two questions.
20. This is a practice frequently used by Joshua Micah Marshall, founder of Talking Points Memo (interview with authors, May 16, 2008).

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