Forging Bonds and Burning Bridges: 
Polarization and Incivility in Blog Discussions about Occupy Wall Street

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ABSTRACT

Putnam warned over a decade ago that the urge to associate with similar others online may lead to “cyberbalkanization,” fostering bonding capital at the expense of bridging capital. This study examines balkanization with respect to political blogs, investigating to what extent opinions in posts and comment sections on blogs associated with the left and right are ideologically polarized. We also investigate whether extreme opinions tend to co-occur with uncivil discourse aimed at political opponents. Finally, this study compares political blogs to a newer information source that bridges the gap between old and new media—newspaper blogs—asking whether polarization and incivility are reduced on that platform. A content analysis was conducted of blog discussions about a salient political event—Occupy Wall Street. In both posts and comments, political blogs were highly polarized and opinion extremity and incivility were correlated. However, content on newspaper blogs was largely unpolarized and civil.

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“The Koch’s and the folks down at the Chamber of Commerce along with every Republican strategist on the payroll must be shitting their pants at what a real grass roots movement looks like.” (Firedoglake blog comment, Oct. 16, 2011)

“Liberals love mob movements because you can’t get mobs to think, which is perfect for Democratic ideas.” (Townhall blog post, Oct. 19, 2011)

Around the turn of the millennium, Robert Putnam (1995; 2000) famously documented, and bemoaned, declining levels of social capital in the United States. Americans were leaving voluntary organizations in droves, often replacing those hours spent socializing with relatively solitary activities, such as watching television. Yet, recognizing the complexity of our society, Putnam rightly pointed out certain exceptions to declining social capital. In particular, the Internet—very much nascent at the time—offered promise. Putnam wrote: “Social capital is about networks, and the Net is the network to end all networks” (Putnam, 2000, 171).

However, Putnam also cautioned that there may be a dark side to the Internet. In particular, he warned of “cyberbalkanization,” in which individuals confined their Internet communication to people who precisely shared their interests and values (Putnam, 2000, 172). Such virtual communities might encourage “bonding capital”—an inward-looking strengthening of ties within exclusive, homogeneous groups—but they likely discouraged “bridging capital”—an outward-looking strengthening of ties across diverse social cleavages.¹ In this article, we consider the question: As the Internet has grown in size, complexity, and importance since

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¹ See Putnam (2000, 22) for these definitions. Also see Norris (2002), who conducts an early analysis of social capital in virtual communities.
*Bowling Alone*, have Putnam’s concerns regarding balkanization and its effects on bridging capital come to fruition? We suggest the answer is “yes,” perhaps especially with respect to political blogs.

Given some ambiguity in the literature as to what precisely constitutes a political blog, let us take a moment at the outset to define them. Political blogs are web pages hosted by individuals or multi-author groups that provide frequently updated personal commentary (usually in lieu of original reporting) on political matters, normally posted in reverse chronological order (Hindman, 2009; Lawrence, Sides, and Farrell, 2010). An important feature of political blogs is their interactive nature, marked by many hyperlinked connections to other blogs and media content as well as reader participation in the comment section (Perlmutter, 2008). Echoing Putnam, Perlmutter goes so far as to refer to blogs as “voluntary associations.”

As time has passed since their introduction, political blogs have lost some of their distinctiveness in two key ways. First, many “old media” news organizations (such as *The New York Times* and CNN) have incorporated blogs into their online presence. One innovation of this study is its investigation of blogs associated with legacy newspapers. Note however that, while we do not deny such entities the title of “blog,” we do think it useful to differentiate them from conventional political blogs, which are independent of old media. We use the terms “political blog” for the latter category and “newspaper blog” for the former. We say more about how newspaper blogs appear to differ from political blogs in our literature review. Second, many political websites have adopted “bloggish” attributes; for example, comment sections and hyperlinks are increasingly a part of online news stories.² We would argue that the increasingly

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² Perhaps nowhere is the line between blogs and traditional content blurrier than with respect to newspaper columnists who now post their columns online with accompanying comment sections.
blog-like nature of these entities only increases the relevance of our study, as the patterns we identify in blogs may increasingly pervade the online news environment.

In this article, we contribute to the literature in two key ways. First, previous research has documented the political polarization$^3$ of political blogs primarily by focusing on their linking patterns (Adamic and Glance, 2005; Hargittai, Gallo, and Kane, 2008). We add to this existing literature by providing an analysis of ideological biases in political opinions expressed on blogs. To do so, we analyze blog posts and reader comments on five political blogs that focused on one of the most discussed political events of 2011: the Occupy Wall Street (OWS) movement. As we describe in the Methodology section, this particular case study is especially useful for our purposes due to both its novelty and the amount of media coverage it received. Second, scholars have documented great incivility on political blogs as compared to other types of media (Sobieraj and Berry, 2011). Common wisdom attributes this tendency to the anonymous and virtual (as opposed to face-to-face) aspects of political blogs and other participatory websites (e.g., see

We would differentiate such content from conventional political blogs, of course. But should they be considered “newspaper blogs”? For the time being, the answer is no, for several reasons: columns appear less frequently than blog posts; they tend to be included in the official edition of the (online) newspaper, whereas blog posts do not; most importantly, columns and other official newspaper content tend to be subject to more editorial oversight than blog posts (Singer et al., 2011). Such distinctions may well fall away in the future, however.

$^3$ There are two common, and somewhat overlapping, definitions of polarization. Polarization can mean (a) a situation where two or more groups have very different views on an issue, or (b) a situation where two groups’ views on an issue diverge over time (Fiorina and Abrams, 2008). Because our study examines one snapshot in time, the first definition of polarization is used.
Davis, 2009). We argue here that, while anonymous and virtual communication may play a role in encouraging incivility, incivility online likely also stems from partisan extremity. To test this hypothesis, we use our blog data on the OWS movement to conduct, to our knowledge, the first microanalysis of the link between political extremity and incivility within media outlets at the level of the textual segment. In drawing a connection between polarization and incivility, we extend Putnam’s early concerns regarding cyberbalkanization by arguing that political polarization among blogs not only prevents bridging capital from being formed but also likely erodes it via frequent incivility toward political opponents, a trend he did not foresee.  

While there are substantial problems associated with political blogs, we would be remiss not to point out some of their benefits. Putnam saw promise in the Internet in its ability to build bonding capital. Political blogs are remarkably interactive and participatory. This interaction—across and within blogs—not only encourages information sharing and off-line activism but also brings with it a strong sense of community (Perlmutter, 2008). With this in mind, we ask whether there are alternate blog models that might similarly build social capital, but of a more bridging variety. The research literature suggests that blogs associated with online newspapers may offer some of these benefits without the harms. Thus, we supplement our data from five political blogs with data from blogs associated with two online newspapers, again analyzing posts and reader comments related to the Occupy Wall Street movement. We find that newspaper blogs—resting in a gray area between old and new media—are blog-like in many positive respects while also being considerably less partisan and more civil, both in their author posts and reader comments.  

\[4\] This said, Putnam did state: “Bonding social capital, by creating strong in-group loyalty, may also create strong out-group antagonism” (2000, 23). In other words, while he did not necessarily predict frequent Internet incivility, its occurrence fits within his theoretical framework.
Political Polarization and Incivility in Old and New Media

Putnam may not have realized it at the time, but his concern about political communication on the Internet—that it would be restricted to individuals who share similar interests and values—reflected a much broader shift in American media. Within the span of just a few decades, the media landscape has evolved from an emphasis on political neutrality and fact provision to a place where ideological bias and political opinion are arguably the norm. These biases and opinions tend not to be idiosyncratic, issue-by-issue affairs; rather, most opinionated news outlets exhibit an ideological consistency across topics reflective of one of the two major parties’ issue agendas. In other words, perspective-oriented political media also tend to be partisan media (Arceneaux and Johnson, 2013; Levendusky, 2013). The various partisan media outlets on the left and right can be thought of as populating “echo chambers” that legitimize and reinforce partisan messages while also protecting them from criticism (Jamieson and Cappella, 2010).  

Legacy newspapers and broadcast news have largely resisted this trend; however, political blogs and other online news sources have joined many cable news outlets and talk radio programs in providing news and commentary from a distinctly partisan perspective. In fact, common wisdom has it that political blogs are more partisan on average than other political media in that most can be identified as liberal or conservative (e.g., see Davis, 2009). There is logic in this. If the phenomenon of partisan media has been driven to a significant extent by an explosion of media choice, as many contend (Ladd, 2012; Levendusky, 2013; Prior, 2007; Stroud, 2011), then it would not be surprising to find online news sources are the most partisan of all.

Although Jamieson and Cappella only investigate and describe a conservative “echo chamber,” liberal media have grown enough in recent years to apply this concept to the left as well.
What evidence do we have for political polarization among blogs? The main evidence appears to be from studies of linking patterns among blogs. Analyses of these patterns clearly show that the “blogosphere” is in fact two blogospheres—left and right—with only occasional links between them (Adamic and Glance, 2005; Hargittai, Gallo, and Kane, 2008). Further, where these occasional cross-fertilizing links appear, they are often accompanied by unfair treatment of the opposition (Hargittai, Gallo, and Kane, 2008). Beyond this, we know that many blogs self-identify as liberal/Democratic or conservative/Republican; this is most evident when a blog’s ideological orientation is cued by its name (e.g., RedState) or stated explicitly in the “About” section of its website. This said, political blogs’ biased opinionation (as opposed to biased linking patterns) has received little study, with no published, systematic study of which we are aware demonstrating political blogs’ tendency to express opinions from one or the other side of the political aisle. This leaves open the possibility that political blogs—while unquestionably opinionated—are not as consistently partisan as common wisdom would lead us to expect.

A critical piece of information linking partisan media to Putnam’s concerns regarding social capital is the nature of the audience. If citizens tended to consume partisan media on both sides of the political aisle, then media “echo chambers” would be of little concern; media elites might be inside the chambers, but the savvy citizens outside could pick and choose among arguments presented. However, many studies have demonstrated that partisan news audiences in fact tend to stay on their side of the partisan-media aisle (Iyengar and Hahn, 2009; Lawrence, Sides, and Farrell, 2010; Stroud, 2011; see Garrett, 2009 for a more nuanced view). Further, this “selective exposure” among media audiences is not the province of the uneducated, disinterested, and/or lazy but rather appears to be most common among the most knowledgeable, engaged, and
participatory audience members (Davis, 2009; Iyengar and Hahn, 2009; Stroud, 2011). Given the vast number of news sources available, these citizens are using partisanship and/or ideology as a sorting mechanism, selecting media outlets and programs they believe reflect their preexisting biases (Stroud, 2011).

Likely reflecting the overwhelming number of sources for news and commentary on the Web, blog readers seem especially prone to select content in line with their preexisting political views (Davis, 2009; Kelly, Fisher, and Smith, 2005; Lawrence, Sides, and Farrell, 2010). What is especially unique and consequential about selective exposure among blog audiences (relative to audiences of other partisan news sources, such as cable news) however is that blog audiences have the opportunity to contribute to the “echo chamber” with their own media messages, via comment sections. Approximately 20% of blog readers do in fact take the opportunity to leave comments (Davis, 2009). Again, given selective exposure, one would expect that the majority of these comments would serve to reinforce the political blog site’s partisan or ideological perspective. The upshot is that the many opportunities for engagement and participation on the Internet—in and of themselves democratic goods—likely lead to a “commentsphere” that is also polarized between left and right. To our knowledge, no published work has systematically tested this claim.\(^6\)

The above literature leads us to a two-part hypothesis related to political polarization among political blogs: *Opinions expressed by authors of political blog posts will tend to reflect the preexisting ideological slant of the blog site on which they appear, leading to polarized*

\(^6\) An unpublished study found that comment strings do tend to echo political bloggers’ viewpoints (Gilbert, Bergstrom, and Karahalios, 2009). However, the authors do not seek to connect this idea to left-right ideological (or partisan) orientation or polarization.
opinions between left- and right-leaning blogs (H1a). Political opinions expressed by commenters on political blogs will also reflect the preexisting ideological slant of the blog site, resulting in a political blog “commentsphere” that is polarized between left and right (H1b).

The partisan media may be primarily characterized by its ideological perspective-taking; however, it is also known to be frequently uncivil. As we discuss in the Discussion and Conclusion, it is uncivil partisan media that is likely to be most damaging to social capital, at least the bridging variety. While definitions of incivility differ, a common theme is the use of language that is clearly disrespectful to another person or group (see Gervais, 2011; Mutz and Reeves, 2005; Sobieraj and Berry, 2011). Political incivility typically demeans an ideological opponent via ridicule or ad hominem attacks (see Jamieson and Cappella 2010). It tends to occur at high rates in partisan media catering to niche audiences (Levendusky, 2013; Sobieraj and Berry, 2011). The likely reasons for incivility in partisan media fall into two categories: First, from a strategic perspective, political incivility can lessen the persuasive appeal of an opponent’s message (Herbst, 2010). Second, political incivility may often be a genuine expression of antipathy toward the opposition; such emotional motivation increases where content producers socially identify with ideologues or partisans who share their ideals and view those with whom they disagree as an out-group (Levendusky, 2013; on social identity theory, see Haslam, Ellemers, Reicher, Reynolds, and Schmitt, 2010 and Tajfel and Turner, 1986).

Just as political blogs are assumed to have strong political perspectives, they are likewise associated with uncivil views. Davis (2009) goes so far as to argue that incivility is the hallmark

7 Throughout this article, the term “commenter” refers to those blog readers who have chosen to leave one or more comments. The term “author” is reserved for authors of original blog posts. (Group blogs would thus contain multiple authors.)
In a thorough empirical analysis of various types of political media, Sobieraj and Berry (2011) found that mockery and belittling were especially common on blogs.

Why is there so much incivility on blogs? The most common explanation is that anonymity and a lack of face-to-face contact encourage incivility, most evident in comment section “flaming,” in which commenters employ uncivil language to attack other commenters with whom they disagree (Davis, 2009; Reich, 2011). However, given that incivility also occurs at high rates on cable television and talk radio (Jamieson and Cappella, 2010; Levendusky, 2013; Sobieraj and Berry, 2011), there is likely more to the story. One possibility is that, as discussed previously, political blog incivility is largely driven by partisan motivations—both strategic and emotional. This may be why scholars who have researched online forums not associated with distinct political perspectives have found relatively limited incivility (e.g., Papacharissi, 2004). If we are right about this, then incivility online ought to be associated with opinion extremity. Our second hypothesis is as follows: *Uncivil language becomes increasingly likely as the political bias of a post (H2a) or comment (H2b) becomes more extreme.*

Furthermore, given that political blog communities tend to be highly homogeneous in terms of political outlook, we argue that incivility will tend to be directed at political opponents elsewhere—the political “out-group”—rather than inward at fellow site participants, with whom a partisan identity is likely to be shared. In other words, despite its notoriety, “flaming” should be little in evidence on political blogs. Thus, we test a third hypothesis: *Most incivility in political blog comment strings will be aimed at off-site—not on-site—political opponents (H3).*

If these hypotheses are substantiated, then it would appear that not only do political blogs limit bridging capital, but that they also actively erode it. But is this a necessary consequence of
the blog format? Is it possible to enjoy some of the benefits of the blog format while avoiding political blogs’ bias and incivility?

One possibility is that newspaper blogs may provide such benefits. Newspaper blogs are similar to political blogs in that they are written at a faster pace and in a more personal and informal style; they also tend to include more hyperlinks than traditional news articles and encourage reader comments. However, newspaper blogs differ from typical political blogs in that they are more likely to be devoted to news stories and in-depth reporting that otherwise would not make “the cut” (Davis, 2009; Robinson, 2006). Opinion expression does not appear to be a key motivating factor in media organizations’ decisions to add blogs to their more traditional content. In fact, following long-standing norms of traditional media, newspapers typically want their bloggers to remain objective, unless a blog is clearly categorized as “opinion” (Singer, 2005). Further, without clear opinion cues enabling selective exposure, it is likely that newspaper blog readers will also be less biased than their counterparts at political blogs. We follow this line of reasoning and test the following dual hypothesis: Newspaper blog post authors (H4a) and commenters (H4b) will exhibit less opinion bias than their counterparts at political blogs.

Finally, most newspaper organizations are considerably more concerned than political blogs with avoiding incivility, including in their online content (Reich, 2011). For this reason, newspaper blog post authors should be more likely to follow norms of respectful discourse and comment sections to be moderated more carefully. In addition, given the likely relationship between extreme opinions and incivility, content producers (whether authors or commenters) on newspaper blogs are less likely to be disrespectful toward political opponents. This brings us to our final, two-part hypothesis: Newspaper blogs will exhibit less incivility than political blogs, in author posts (H5a) and comment strings (H5b).
Methodology

Case Study: Occupy Wall Street

The primary focus of this study is ideological polarization among political blogs. A scholar might conduct a systematic study of this topic by using several different methods. Following Adamic and Glance (2005) and Hargittai et al. (2008), one might identify conservative and liberal sites and then study the extent to which these sites link to others with likeminded views. Or, following Baum and Groeling (2008)—who examined (and found) ideological bias on online news sites—one might first identify news stories that are favorable or unfavorable to the left or right, and then assess whether coverage of these stories differs across liberal and conservative political blogs. However, neither of these strategies assesses political bias in opinion expression, perhaps the most central aspect of political polarization and an oft-assumed quality of political blogs. Assessing opinion bias objectively and reliably is a difficult endeavor. One strategy is to choose a new, salient political issue or event with clear partisan or ideological implications and then investigate whether blogs on the “left” and “right” take up the viewpoint of “their” side of the aisle. This is the strategy followed below.

This study focuses on blog discussions of Occupy Wall Street, the progressive populist movement that sprang up in New York City in September of 2011 and captured Americans’ attention for several months thereafter. This case was chosen for several reasons. First, it was frequently discussed by blog participants, increasing the likelihood that there would be enough content available to conduct a reliable statistical analysis. Second, despite its relatively inclusive
message (“we are the 99%”), the movement could be (and was) interpreted as “leftist” given its anti-capitalist, egalitarian, and democratic values as well as visible markers of leftist counter-culture associated with participants. Third, the movement was completely novel, a rarity in politics. This means that the political blogs selected for the content analysis had developed their liberal or conservative (or moderate) reputations before the OWS movement emerged, allowing for a careful test of whether political blog coverage of the protest tended to reflect preexisting ideological sympathies. In other words, novelty offers blog post authors and commenters the opportunity to express judgment that is neutral or against type.

**Choice of Blogs**

Researchers interested in studying political blogs soon run up against a significant hurdle: how to identify the population under study. The number of blogs is enormous, and, at the same time, most blogs are ephemeral, being abandoned not long after they are begun (Davis, 2009). For this reason, there is no complete list of all political blogs from which to draw a sample. Even if there were, we likely would not have the resources to code blog posts and comments from a large enough sample to reliably represent the entire blog population. Thus, in this article, we do not

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8 This aspect of the movement arguably makes this study a conservative test of the blog polarization hypothesis. Despite its leftist orientation, the OWS movement openly welcomed participants from across the political spectrum.

9 For example, the movement sought a “post-capitalist future” (Adbusters Magazine, 2012). YouTube videos of OWS “General Assemblies” depicted the group’s commitment to a “new left” style of unitary democracy—a community of equals governed by consensus (Mansbridge, 1980). Visual markers of leftist counter-culture (evident in many published photos) included drum circles, peace symbols, tattoos, and hair dyed vibrant colors.
attempt the nearly impossible task of drawing (and coding) a cross-section of all political blogs in order to “represent” the entire population; rather, we focus on blogs with the largest audiences (referred to as “A-list” blogs) and, thus, the largest impact. This approach admittedly leaves open the possibility that the content of less popular blogs differs in some way from what is discussed here. Note, however, that ours is the typical approach to media content analysis; many—if not most—content analyses of political media focus on outlets that enjoy a large audience rather than on a representative cross-section of all media (to name just a few such studies cited elsewhere in this article: see, e.g., Boykoff and Laschever, 2011; Jamieson and Cappella, 2010; Levendusky, 2013; Sobieraj and Berry, 2011; Weaver and Scacco, 2013).

The task of choosing blogs to content analyze began with identifying popular political blogs from across the political spectrum. We used Technorati’s authority rankings, lists available on www.blogs.com, and various published lists (Iyengar, 2011; Lawrence, Sides, and Farrell, 2010; Sobieraj and Berry, 2011) as a starting point. We expanded our list further by following links to other widely read political blogs. We expanded our list in this way for two reasons: First, we hoped to include moderate blogs in our sample; yet these tend not to be popular (and, thus, do not appear on various “Top 10” lists). Second, given our specific interest in discussion of the Occupy Wall Street movement, we wanted to ensure that each blog analyzed would include sufficient numbers of posts related to OWS, as well as sufficient reader comments, to sustain a large content analysis. We then narrowed our list according to several criteria. Some blogs were eliminated because they were not updated on a daily, or near-daily, basis (meaning they were unlikely to provide sufficient content for a content analysis). We also eliminated “special interest” blogs (such as MediaMatters.org), as we wished to study general purpose political blogs. There were other technical reasons why some blogs were eliminated from consideration.
For example, some blogs that were otherwise good candidates did not seem to offer a reliable search mechanism to identify content solely related to the event under study (OWS). In order to choose from the remaining blogs, we considered both blog popularity and OWS coverage. With respect to the latter, we compiled two sets of numbers—the number of hits generated in response to a Google search within the site for the words “Occupy Wall Street,” and the number of comments from blog readers in response to the first two hits. We ultimately chose five blogs. From the left, *Daily Kos* and *firedoglake* were chosen; they routinely appeared on “top 10 liberal blogs” lists at the time and clearly outpaced the others in OWS coverage when both blog posts and comments were considered. On the right, we chose *Townhall* and *MichelleMalkin*. Again, both could be found on various “top 10 conservative blogs” lists during the time period. *Townhall* far outpaced the others in terms of its original posts on OWS; *MichelleMalkin* had fewer posts than several others but generated a great many comments. The moderate blogs presented us with some difficulty given their small number as well as assorted technical difficulties that would have prevented a systematic content analysis; ultimately, we chose just one moderate blog, *TheModerateVoice*.

In order to compare the content of political blogs to newspaper blogs, content from the above five blogs was supplemented with content from blogs hosted by two newspapers—*The New York Times* and *The Wall Street Journal*. Blogs from these newspapers were chosen for several reasons. First, they are the two most widely read newspapers in the United States (Associated Press, 2013). As with our analysis of political blogs, our interest here is not to attempt to represent all newspaper blogs in the U.S. but to better understand the content of leading newspaper blogs, given that the content they choose to include in their virtual pages is likely to have a significant impact on the American public. Second, these two newspapers’
editorial pages tend to espouse views from opposite ends of the political spectrum, allowing us to compare the extent of their blogs’ political biases to that of the political blogs in our sample. Third, both newspapers have a robust online presence, hosting many blogs and online reader comments. Fourth and finally, each gave sustained attention to the OWS movement.

Choice of “Conversations”

An original blog post and the comments in response to that post are referred to as a “conversation.” This study examines conversations that occurred during a ten-week period, beginning on Saturday, September 17, 2011, the day Occupy Wall Street occupied Zuccotti Park, and ending Friday, November 25, a little over a week after protestors were forced by police to end their encampment. This time period represents the height of the Occupy Wall Street movement in the U.S. as well as media coverage of the movement. The time period was stratified by week, and two dates from each week were randomly chosen. A blog post that focused on OWS was randomly selected from each site for each of the dates. If there was no conversation related to OWS for a particular site and date, then a third date (or fourth, etc., as needed) from the relevant week was randomly selected. Content was identified using search functions available on each site. Research assistants searched for the words Occupy Wall Street (without quotes) and the selected date. Assistants manually verified that each selected post focused on OWS before moving it into the database. See Appendix A for details on the sample.

10 At newspaper websites, the search was extended to other content types (e.g., traditional articles, opinion columns) because a more varied sample was sought initially with the goal of exploring differences among various content types. However, newspapers’ coverage of OWS proved to be concentrated in their blogs. Because there were few traditional news and editorial items in the sample, these items were set aside and are not analyzed below.
**Content Coding**

PDFs were created representing the original blog post and all comments in the associated string, ordered from oldest to newest. The original post and the first 30 comments were coded, for a total of 2,392 blog posts and comments coded across the seven sources.\(^{11}\) Examination of the coded comments revealed that most were generated by unique commenters; however, to more accurately represent the views of site commenters, “repeat” comments from participants as well as comments from blog post authors were removed unless otherwise noted.\(^{12}\)

\(^{11}\) Approximately 50% of conversations included 30 or fewer comments. For the remaining conversations, the first 30 comments were drawn—as opposed to a random selection of comments—out of concern that a random selection might not be comparable to the other half of the sample. This selection strategy is unlikely to introduce bias; statistical analyses of this study’s coded comments found that very early and very late comments were not significantly different from other comments in the string (*analyses available upon request*).

\(^{12}\) Our goal in examining comment sections was to provide a snapshot of opinions contributed by the subset of readers who choose to comment. Substantively, including repeat commenters would distort our results, allowing a small number of highly engaged individuals to shift mean responses in one direction or another. This would make our findings difficult to interpret and reduce our ability to draw comparisons across comment sections, as 30 comments in one section might represent 30 different people, whereas in another section the same number might represent 3 different people. In addition, even if we preferred to represent comments (as opposed to commenters), from a methodological perspective, including multiple comments from the same individual in our regression models would challenge assumptions of statistical independence.
The coding scheme was piloted several times and revised during the spring of 2012. After extensive training, two naïve coders applied the final coding scheme to the entire sample during the summer of 2012. Each coder worked on one set of conversations at a time; a set consisted of one randomly drawn conversation from each of the seven websites. Intercoder reliability was assessed immediately prior to the content coding, with each coder coding the same set of seven randomly drawn posts (and related set of comments). Reliabilities were good for all variables discussed in this article and are reported in the next section.

The unit of analysis in this study is the original blog post or comment. As is often the case in content analyses of blog content, only text was analyzed, i.e., images and external links were ignored. Posts and comments were coded for the following attributes discussed in this article: 1. the author’s or commenter’s stance toward the Occupy Wall Street protests; 2. specific groups or individuals (including the blog post author or another commenter) commended or criticized; 3. whether any criticism was uncivil. Relevant sections of the coding scheme can be found in Appendix B. The variables used in the analyses are discussed in greater detail below.

Variables

All of the variables range from 0 to 1 for ease of interpretation and so that effect sizes can be easily assessed and compared. The analyses below contain three key variables.

Stance toward Occupy Wall Street contains five levels, with 0 representing solid support for the movement and 1 representing solid opposition to the movement; .5 represents either neutrality or ambivalence. (Comments that did not express an opinion on OWS because they

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13 To guard against politically biased coding, a moderately liberal and a moderately conservative coder were employed. Good intercoder reliabilities suggest little bias in coding.
were devoted to a different subject entirely were coded “99” and excluded from analyses including this variable.) Krippendorff’s alpha for this variable is .765.\textsuperscript{14}

The *Ideological Social Judgment* variable was constructed in the following way: For each positive comment about an actor on the left or negative comment about an actor on the right, the post or comment was coded as increasingly liberal; for each positive comment about an actor on the right or negative comment about an actor on the left, the post or comment was coded as increasingly conservative.\textsuperscript{15} This variable contains 11 levels. 0 represents extreme liberal bias; .5 represents no bias (no judgment of left or right or balanced judgment of left and right); and 1 represents extreme conservative bias. Krippendorff’s alpha = .71.

Finally, all critical posts and comments were coded for the degree to which they were offensive, meaning clearly insulting or demeaning to another person or group. The *Incivility* variable has four levels, ranging from 0 to 1. Krippendorff’s alpha = .72.

**Statistical Analyses**

Throughout the empirical section below, t-tests and chi-squared tests are used to test whether observed differences among blogs are statistically significant. The hypotheses related to the association between extremity and incivility are tested with variable intercept, multi-level models.\textsuperscript{16} The structure of the data is well-suited to such a model, with blog posts and comments

\textsuperscript{14} The alphas in this section represent acceptable to excellent levels of agreement for a “chance-corrected” measure, depending on the source (Banerjee et al., 1999; Neuendorf, 2002, 143).

\textsuperscript{15} See Appendix C for additional details regarding this and the following variable’s construction.

\textsuperscript{16} Luke (2004) would refer to these models as *random* intercept models; however, given the possibility that this might be confused with a “random effects” model (Gelman and Hill, 2007).
nested within blog sites. Generally speaking, multi-level models take into account the fact that
the individual observations are grouped by blog site, potentially resulting in on-average
differences between groups and correlated error terms among observations within groups
(Gelman and Hill, 2007; Luke, 2004). The coefficients in these models are comparable to non-
grouped regression models (in this article, *Ordinary Least Squares*).

**Data Analysis**

**Opinion Bias and Polarization**

The first aspect of the conversations examined is the degree to which authors and commenters
writing on the five political blogs expressed viewpoints consistent with each blog’s preexisting
ideological slant, resulting in polarization between sites on the left and right.

Table 1 displays each blog’s mean *Stance toward Occupy Wall Street* and *Ideological
Social Judgment* for author posts and comments separately. Scores of .5 are “neutral,” indicating
neither favoring nor opposing OWS overall or indicating judging actors on the left and right
equally. Scores between .5 and 1 indicate anti-OWS views or conservative social judgments on
balance; scores between 0 and .5 indicate pro-OWS views or liberal judgments.

[Table 1]

Opinion among blog post authors falls as expected. With respect to *Stance toward
Occupy Wall Street*, authors on the two conservative sites opposed OWS (*Michelle Malkin* m = .983; *Townhall* m = .933); authors on the two liberal sites supported OWS (*Daily Kos* m = .025; *firedoglake* m = .016). It is worth noting here how close to the extremes these means are; blog
post authors on liberal and conservative sites took the most extreme position (on “their” side of

the term “variable intercept” is used instead. What this means is that intercepts for each group
varied; however, coefficients (i.e., slopes) were not estimated separately for each group.
the aisle) over 90% of the time. Authors on *TheModerateVoice* fell in the middle, but leaned in favor of OWS (m = .234). Each of the relevant differences in means—comparing each site on the left to each site on the right—is statistically significant (p ≤ .0001, one-tailed).\(^\text{17}\) In fact, the polarization is so great that even differences between the four ideologically extreme blogs and *TheModerateVoice* are significant at the same level (p ≤ .0001, one-tailed). With respect to *Ideological Social Judgment*, these patterns are repeated. Authors on the liberal sites were much more favorable toward left-leaning people and groups than authors on the conservative sites (p ≤ .0001). In addition, those on the left- and right-leaning sites were more extreme than those at *TheModerateVoice* on this variable.\(^\text{18}\) These findings lend strong support to H1a.

Comments followed a similar pattern, although they were somewhat less polarized. With respect to *Stance toward Occupy Wall Street*, the means are as follows: *Michelle Malkin* m = .819; *Townhall* m = .770; *TheModerateVoice* m = .352; *Daily Kos* m = .234; *firedoglake* m = .201. Again, relevant comparisons are all statistically significant (left-right differences all p ≤ .0001; extremes v. *TheModerateVoice* at least p ≤ .001). For *Ideological Social Judgment*, differences between left and right also reached very low p-levels (p ≤ .0001).\(^\text{19}\) Overall, these data offer strong support for H1b.

\(^{17}\) Given the directional hypotheses, all tests are one-tailed unless otherwise noted.

\(^{18}\) Authors on conservative sites were easily distinguished from *TheModerateVoice* (p ≤ .0001); however, because authors at *TheModerateVoice* leaned left, differences between them and the liberal blogs were somewhat less reliable (FDL vs. MV p = .01 and DK vs. MV p = .055).

\(^{19}\) Again, differences between *TheModerateVoice* and the conservative blogs reached very low p-levels (p ≤ .0001) while differences between *TheModerateVoice* and liberal blogs were somewhat more marginal statistically (FDL vs. MV p ≤ .05 and DK vs. MV p = .06).
The striking pattern of polarization between left- and right-leaning political blogs for both authors and commenters is most easily seen if displayed visually. Figure 1 displays means and confidence intervals for the Stance toward Occupy Wall Street variable by political blog, for authors and commenters separately. One can see that, in every case, the left-right differences are many times greater than the length of the confidence intervals surrounding each mean.

[Figure 1]

Incivility

The next set of hypotheses, H2a and H2b, posited that uncivil language on political blogs would be associated with relatively extreme political views. For blog post authors and commenters separately, we conducted variable intercept, multi-level regression models. This method allows us to control for unmeasured characteristics that might impact any given blog site’s tendency toward incivility and, thus, confound the association between opinion extremity and incivility. For example, authors or commenters associated with one or more of the blogs might have established community norms that encourage or discourage incivility or might police incivility more or less assiduously. The multi-level models help to ensure that these site-level characteristics will not confound the extremity-incivility association.

The incivility level of each author post or reader comment was regressed on the extremity of the item’s Stance toward Occupy Wall Street and the extremity of the item’s Ideological Social Judgment. (These two variables are simply collapsed versions of their relevant parent variable.) The OWS Extremity variable is coded “0” for no opinion, “.5” for leaning toward or against OWS, and “1” for solidly pro- or anti-OWS; the Social Judgment Extremity variable contains 6 categories and ranges from 0 (equivalent judgment of liberal and conservative actors) to 1 (maximum bias in favor of liberal or conservative actors). To separate the effects of
extremity from the direction of a person’s OWS opinion or social judgments, Stance toward Occupy Wall Street and Ideological Social Judgment are included as controls.

[Table 2]

Results are in Table 2.\textsuperscript{20} Among authors, the coefficient on OWS Extremity is not statistically significant; however, the fact that there is almost no variation on this variable within any given site (see Figure 1) suggests that any attempt to estimate this particular relationship will fail. Social Judgment Extremity is positively associated with incivility (p ≤ .05). All else equal, the average author post exhibiting maximum social judgment bias is approximately 15% higher on the incivility scale than the average post with no such bias. Turning to the comments, both extremity variables are positively associated with incivility (b\textsubscript{OWS Extremity} = .034, p ≤ .001; b\textsubscript{Social Judgment Extremity} = .082, p ≤ .01). Overall, these data provide strong support for H2. Finally, although not the focus of this analysis, the relationship between the direction of bias and incivility is considerable for both authors and commenters. The strongest relationship is between authors’ social judgments and incivility; all else equal, the most conservative social judgments were associated with incivility levels 37% greater than the most liberal judgments (p ≤ .01).

What is the nature of the incivility that occurred? We posited that, because blog sites are fairly homogeneous opinion communities, incivility in comment strings would more often be directed at outsiders than site participants (H3). This is the case. First, of all critical comments in the database,\textsuperscript{21} 85% are directed at “off-site” actors, and 15.6% of these criticisms are uncivil. Of

\textsuperscript{20} Note that results are similar if OLS regression is used.

\textsuperscript{21} Here, the full database is examined, including repeat commenters, who are more likely to be interacting with others on the site. Without including these comments, the analysis would be biased in favor of the hypothesis (i.e., that blog incivility tends to be directed outward).
the remaining 15% of criticisms (directed at the blog post author or other commenters), only 9.6% are uncivil. Thus, in terms of raw numbers, off-site incivility greatly overshadows on-site incivility. However, even the difference in the proportion of incivility among off-site (15.6%) and on-site (9.6%) criticism is statistically significant ($X^2 = 6.387$, df = 1, $p \leq 0.01$, two-tailed). In other words, those who criticized off-site actors were more than 50% more likely to do so in an uncivil manner compared to those who criticized fellow blog participants.

**The Distinctiveness of Newspaper Blogs**

Whether newspaper blogs differ from political blogs in terms of opinion polarization and uncivil expression is investigated in this final section, beginning with polarization. The shaded portion of Table 1 displays means for the *Stance toward Occupy Wall Street* and *Ideological Social Judgment* variables among authors and commenters separately. On average, political expression among authors and commenters on these sites was relatively unbiased.

Blog post authors at the *WSJ* were in fact perfectly unbiased, with means at .5 and no variance. Authors at the *NYT* leaned to the left of the .5 unbiased mark on both variables ($p \leq .05$), although the bias was modest (OWS m = .397; judgment m = .48). For both variables, newspaper blog posts on the “left” (*New York Times*) and “right” (*Wall Street Journal*) were

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22 Note that chi-squared significance tests are normally two-tailed, a convention followed throughout this article.

23 Two *NYT* blog posts were drawn from blogs clearly marked as “opinion” (see Appendix A). If the means are recalculated without these posts, the authors’ views become statistically indistinguishable from .5; however, comments shift slightly to the left. Note that the *WSJ* website does not differentiate between “news digest” and “opinion” blogs; however, a perusal of the site reveals few opinion-type blogs, an impression this analysis appears to confirm.
considerably less biased than their counterparts at political blogs (at least \( p \leq .0001 \)). In other words, the means for the *Stance toward Occupy Wall Street* and *Ideological Social Judgment* variables fell much closer to the neutral point of each scale. Thus, there is strong support for H4a. Comments at both of the newspaper sites were slightly more politically biased than author posts, but they remained less biased than their counterparts on political blogs. More specifically, comments at the *WSJ* were considerably less biased than those at the right-leaning political blogs for both variables (\( p \leq .00001 \)); comments at the *NYT* were less biased on *Stance toward Occupy Wall Street* than those at left-leaning political blogs (at least \( p \leq .001 \)) but were more similar to *Daily Kos* and *firedoglake* on the *Ideological Social Judgment* variable (both \( p > .10 \)) (although note that, in this instance, left-leaning political blog comments happened to be fairly unbiased). With three of the four comparisons between newspaper and political blog comments in the expected direction *and* statistically significant, a majority of the evidence supports H4b.

Figure 2 displays means and confidence intervals for the *Stance toward Occupy Wall Street* variable by newspaper blog, for authors and commenters separately. Particularly in contrast to Figure 1, this figure demonstrates how little blog post authors and commenters on these sites strayed from a relatively neutral position on Occupy Wall Street. Not only were the posts and comments on these sites close to neutral on average, but the short confidence intervals indicate that there was little deviation around those means.

[Figure 2]

Finally, incivility on newspaper blogs is examined and compared to political blogs. As expected, incivility was greater on the political blogs (10% of posts overall) than the newspaper blogs (4%) \( (\chi^2 = 16.76, \text{ df} = 3, p \leq .001) \). Blog post authors at *The New York Times* and *The Wall Street Journal* exhibited no incivility, whereas 11% of posts by authors on political blogs
contained some incivility ($X^2 = 3.35, \text{df} = 1, p \leq .10$). Also, while approximately 4% of comments on the newspaper sites were uncivil, 10% of political blog comments were uncivil ($X^2 = 14.18, \text{df} = 1, p \leq .001$). These findings support the last set of hypotheses, H5a and H5b—the expectation that incivility would be greater in political blog posts and comments (relative to newspaper blogs). Finally, the incivility disparity between left and right political blogs—with more incivility on the right—is mirrored in the newspaper blog comments, with greater incivility among commenters at the WSJ (9%) as opposed to the NYT (2%) ($X^2 = 11.29, \text{df} = 1, p \leq .001$).

**Discussion and Conclusion**

This study extends current research on political discourse on blogs, and new media in general, in several ways. To begin, we find tremendous political opinion polarization among authors and commenters on liberal and conservative political blogs in their discussion of a politicized event, the Occupy Wall Street movement. On the one hand, these findings simply substantiate the previously untested common wisdom that A-list political blogs consistently offer opinions from just one side of the political aisle; on the other hand, the findings contribute important new details to our understanding of this critical aspect of political blogs. First, it is important to point out that blog post authors, in particular, were remarkably polarized over OWS; authors on the left and right took the most extreme position on OWS in nearly every blog post they wrote. Second, while commenters were somewhat less polarized, they demonstrated a clear tendency to reinforce the conservative or liberal “echo chamber” in which they were participating.

Furthermore, opinion bias on political blogs—again, among both authors and commenters—was positively associated with uncivil speech that insults ideological enemies. While our content analysis cannot establish the direction of the causal arrow with absolute certainty, it seems highly unlikely that a predisposition toward incivility would lead to
ideologically biased statements. (All else equal, uncivil people should enjoy insulting a variety of targets on the left and right; such a tendency would mark them as politically neutral overall, not extreme.) Rather, the causal arrow likely runs in the other direction, with a strong dislike of political opponents generating an impulse to insult them, out of genuine emotion and/or a strategic effort to discredit their arguments (Herbst, 2010; Levendusky, 2013). To our knowledge, this is the first published study to establish a link between ideological extremity and incivility at the level of the media message. Previous scholars have established that partisan media in general is more uncivil than mainstream media (Levendusky, 2013; Sobieraj and Berry, 2011); however, these studies cannot rule out the possibility that incivility in partisan media outlets stems from other correlated causes, such as a wholesale dismissal of norms of civility and/or simply a desire to draw a larger audience. Our study establishes that, regardless of such factors (which may indeed be operating at the level of the media outlet), ideologically extreme sentiments are more likely than moderate ones to be accompanied by uncivil statements.

Finally, we found that authors and commenters on newspaper blogs with left-leaning and right-leaning editorial pages were not polarized over OWS and engaged in little incivility. Again, this is the first effort of which we are aware to systematically assess these aspects of newspaper blogs and compare them to conventional political blogs. In a gray area between old and new media, the newspaper blogs we examined appear to have adopted many “bloggish” attributes while also leaving ideological extremity and incivility behind. This may be a surprise to some. For example, Jamieson and Cappella (2010) include WSJ in its conservative “echo chamber,” and Sobieraj and Berry (2011) find that opinion columns in newspapers have become more inclined over recent decades to include uncivil language. This said, literature on traditional newspapers’ movement toward offering online content makes clear that their goal is generally
not to mimic the opinionation present on political blogs or their own editorial pages but, rather, to inform their audience more quickly about more topics while also allowing for audience participation through comments (e.g., Reich, 2011; Robinson, 2006; Singer, 2005). In this way, the newspapers appear to be delivering.

Limitations
In focusing on one case study—the Occupy Wall Street movement—we have admittedly sacrificed some breadth for depth. Adding additional issues or events to this study would have made timely completion unfeasible given the substantial resources required to hand code the many reader comments in particular. Our view is that this trade-off was worthwhile given previous studies’ almost complete lack of attention to the participatory role of readers in creating new media content via comment sections. While some might offer that depth and breadth could have been achieved with the use of machine coding, our considered view at the time the research was conducted was that machine coding would not have been able to measure the phenomena of interest in this study—opinion bias, social judgment, and incivility—24—with precision. This said, as machine coding grows more sophisticated, we welcome attempts by researchers to make headway in the automated coding of these and related variables.

Nevertheless, a focus on just Occupy Wall Street raises concerns about generalizability, leaving open the possibility that this event was unusual in its ability to generate ideologically extreme views and accompanying incivility on blogs. Perhaps its leftist nature or some idiosyncratic aspect of the protests sparked greater divisiveness and/or uncivil reactions?

24 While a computer program could be written to identify profanity and common insults, note that uncivil comments on blogs are highly varied and creative and often subtle (e.g., sarcasm), making this perhaps the most difficult variable to measure reliably via automated coding.
Thankfully, we can draw on two recent studies of media coverage of the Tea Party protests to help answer this question—one by Boykoff and Laschever (2011) and a second by Weaver and Scacco (2013). Although these scholars do not focus on new media, their findings otherwise dovetail with those presented herewith. In short, these studies both show that conservative Fox News supported the Tea Party protests and that liberal MSNBC opposed them (Boykoff and Laschever, 2011; Weaver and Scacco, 2013), whereas CNN, AP, and other news sources with more neutral reputations treated the protests in a more balanced fashion (Weaver and Scacco, 2013). Not only do our polarization results mirror the above Tea Party studies, but they are remarkably equivalent on the left and right: both liberal and conservative blog participants expressed a great deal of opinion bias, and opinion bias predicted incivility regardless of ideological persuasion. Further, newspaper blogs at both the NYT and WSJ were substantially less biased, and more civil, than their political blog counterparts.

Interestingly, while the authors of these studies did not study incivility per se, they did find that MSNBC was more likely than other outlets to malign the perceived intelligence, character, and motivations of participants in the Tea Party protests (Boykoff and Laschever, 2011; Weaver and Scacco, 2013). We interpret this last point as suggesting that our discovery that conservative comments were more uncivil than others may stem in part from the fact that the subject under study was a liberal protest, with conservative disdain for protestors dominating.

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\(^{25}\) Our statistical models controlled for ideological direction when assessing the relationship between ideological extremity and incivility. However, to make certain that these results were not driven by incivility on the right, we also conducted separate regressions for the liberal, conservative, and moderate blogs separately. The extremity-incivility link appears in each of these regressions, supporting our claim that political extremity *in general* increases incivility.
instances of incivility. This said, OWS participants were themselves fiercely negative toward “the 1%” and their perceived allies, certainly giving liberal blog post authors and commenters the opportunity for incivility. With this in mind, and given that Sobieraj and Berry (2011) find more incivility on conservative than liberal news outlets, our results might also be driven by a tendency toward greater incivility among conservatives. We speculate that conservatives’ greater incivility in our dataset can be attributed both to the subject matter (OWS) and to a greater tendency toward incivility overall. We leave this to future scholars to investigate. We conclude by emphasizing that this unexpected pattern (we made no prediction along these lines) was our only finding likely influenced by our choice of topic.

A second limitation of this study stems from the fact that only approximately 20% of blog readers leave comments, with the remainder in the “lurker” category (Davis, 2009). Why should we be concerned with the opinions and civility of such a small slice of blog readers? Scholars are admittedly uncertain of how representative commenters are of a blog or other websites’ readership. However, studies do show that—to the extent that commenters are not representative of all blog readers—they are unique in their greater off-line political activism and desire to be opinion leaders (Davis, 2009; Smith, Schlozman, Verba, and Brady, 2009). Thus, there is arguably reason to focus on commenters, as they are most likely to influence the political process beyond just the blogs on which they are participating. Just as important, we are interested in the content of blog comments for the straightforward reason that this content is also part of the “blogosphere.” It will be read by others and will likely influence reader opinions to some extent. While we were unable to find any studies that have estimated the frequency with which blog readers read blog comments, we can report that fully 45% of reader comments in our full database actually referred to another reader’s comment (indicating that they had read it).
Thus, our study suggests that, at the very least, about half of commenters are reading other reader posts. This is a very conservative estimate of the frequency of comment reading, given that some commenters will read other comments without making this known in their post and, of course, that many lurkers likely read comments without posting at all.

**Normative Implications**

Some might react to our findings by asking, “so what?” Partisan media is engaging and often informative, after all, and one might argue that incivility is relatively harmless if it takes place within an echo chamber where the objects of derision are not listening.

We disagree with those who might argue that partisan media does not present appreciable normative difficulties. A number of careful empirical studies on partisan media carried out in recent years make clear that partisan media polarizes audiences, especially when those audience members deprive themselves of cross-cutting exposure (Mutz and Martin, 2001) by engaging in selective exposure. Partisan media influences which issues people think are most important, reinforces partisan views and often makes them more extreme, strengthens bonds between the audience and party elites, increases ideological coherence, and decreases the likelihood of counterpersuasion (see especially Levendusky, 2013; also see Druckman, Peterson, and Slothuus, 2013, Jamieson and Cappella, 2010, and Sunstein, 2007). Furthermore, when incivility against political opponents is introduced into partisan media, this has the additional effect of devaluing the opposition, reifying partisan or ideological boundaries, decreasing trust in the opposition and interest in compromise, and spurring copycat incivility (Anderson, Brossard, Scheufele, Xenos, and Ladwig, 2013; Gervais, 2013; Gutman and Thompson, 2012; Levendusky, 2013; Maisel, 2012; Mutz, 2007; Mutz and Reeves, 2005).
One cannot cast aside these concerns by arguing that the audience for blogs is small. The website quantcast.com indicates that, over the four-week period immediately prior to this writing, Daily Kos had 3.9 million visitors and Townhall had 2.7 million visitors. Thus, the particular messages these sites communicate are reaching an audience that is substantial in size. Furthermore, those seeking out new media for political news and commentary are largely being drawn away from traditional newspapers (Gaskins and Jerit, 2012), a relatively objective and civil medium. One might still argue that the audiences of partisan media represent only a minority of Americans (Arceneaux and Johnson, 2013); however, it is important to note that these individuals are considerably more likely to be politically active than other citizens and, thus, together likely have an outsized influence on political discourse and processes in the U.S. (Levendusky, 2013).

To conclude, we return to Putnam, whose ideas of bonding and bridging capital we believe frame the benefits and detriments of political blogs particularly well. While political blogs certainly build bonding capital—strengthening information sharing and affective ties within homogeneous groups—our data indicate that they almost certainly also erode bridging capital—decreasing participants’ contact with, and trust in, heterogeneous others. Thankfully, we do not believe the American polity must choose between this state of affairs and the loss of online social capital altogether. Our analysis of newspaper blogs indicates that polarization and incivility are not necessary attributes of the blog format. Newspaper blogs demonstrate that adherence to “old media” norms of objectivity and civility can result in an online participatory space that is less biased and more welcoming of a diverse readership. While such blogs may be less entertaining for some, and may result in less intense camaraderie among participants, as
compared to typical political blogs, the trade-off may be well worth it given our nation’s very diverse polity and the highly polarized nature of contemporary political discourse.
Works Cited


Gilbert, E., Bergstrom, T., & Karahalios, K. (2009). Blogs are echo chambers: Blogs are echo chambers. *Paper Presented at the 42nd Annual Hawaii International Conference on System Sciences.*


Table 1: Means for Opinion Variables by Blog Site and Type of Content Producer

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<thead>
<tr>
<th></th>
<th>DK</th>
<th>FDL</th>
<th>MV</th>
<th>MM</th>
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<th>WSJ</th>
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<td>(16)</td>
<td>(15)</td>
<td>(15)</td>
<td>(17)</td>
<td>(11)</td>
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<td>.540</td>
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<td>(86)</td>
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<td>(271)</td>
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<td><strong>Ideological Social Judgment</strong></td>
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<td></td>
</tr>
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</tr>
<tr>
<td></td>
<td>(20)</td>
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<td>(16)</td>
<td>(15)</td>
<td>(15)</td>
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<tr>
<td>Commenters</td>
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<tr>
<td></td>
<td>(131)</td>
<td>(210)</td>
<td>(110)</td>
<td>(312)</td>
<td>(269)</td>
<td>(347)</td>
<td>(171)</td>
</tr>
</tbody>
</table>

Relevant Ns in parentheses.\(^{26}\)

\(^{26}\)Ns are smaller among commenters in the top half of the table because comments that did not discuss OWS could not be assigned a score for this variable (and were dropped from analyses).
Table 2: Incivility is Associated with Extremity and Conservatism in Blog Posts and Comments

<table>
<thead>
<tr>
<th></th>
<th>Author Incivility</th>
<th>Commenter Incivility</th>
</tr>
</thead>
<tbody>
<tr>
<td>OWS Extremity</td>
<td>.040 ( .057)</td>
<td>.034*** (.011)</td>
</tr>
<tr>
<td>OWS Stance</td>
<td>-.024 ( .057)</td>
<td>.050*** (.016)</td>
</tr>
<tr>
<td>Social Judgment Extremity</td>
<td>.147** (.066)</td>
<td>.082** (.031)</td>
</tr>
<tr>
<td>Social Judgment</td>
<td>.373*** (.123)</td>
<td>.110* (.057)</td>
</tr>
<tr>
<td>Constant</td>
<td>-.195*** (.064)</td>
<td>-.077** (.026)</td>
</tr>
</tbody>
</table>

Variable intercept multi-level OLS regression models (standard errors in parentheses). One-tailed significance tests: ^ p ≤ .10, * p ≤ .05, ** p ≤ .01, *** p ≤ .001.

First column is author incivility regressed on other characteristics of author posts; second column is commenter incivility regressed on other characteristics of comments.
Figure 1: Author and Commenter Polarization on Political Blogs

The Y-axis variable neutral point (.5) is marked.

Figure displays Y-axis variable means and 95% confidence intervals for each blog separately.
Figure 2: Relative Lack of Polarization on Newspaper Blogs

Figure displays Y-axis variable means and 95% confidence intervals for each newspaper separately.

The Y-axis variable neutral point (.5) is marked.
# Appendix A: Content Sample

## Daily Kos

<table>
<thead>
<tr>
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<th>DATE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Changing Political Culture Under Obama</td>
<td>Nov 1</td>
</tr>
<tr>
<td>I’m just going to say it, there will be NO DEMANDS until the police violence against OWS stops</td>
<td>Nov 2</td>
</tr>
<tr>
<td>Will the 1% Steal Ohio’s Labor Rights Referendum?</td>
<td>Nov 5</td>
</tr>
<tr>
<td>NPR guest &quot;can almost sympathize&quot; with OWS?!?! Let me help you understand something...</td>
<td>Nov 9</td>
</tr>
<tr>
<td>Occupying Orlando</td>
<td>Nov 16</td>
</tr>
<tr>
<td>Letting the 1% Make Our Arguments For Us</td>
<td>Nov 18</td>
</tr>
<tr>
<td>Some easy debate tips about OccupyWallStreet that you can use in the media or at Thanksgiving Dinner</td>
<td>Nov 21</td>
</tr>
<tr>
<td>A call to occupy political fundraisers</td>
<td>Nov 24</td>
</tr>
<tr>
<td>We are the 99%. We are done being victims. Take back the 99%.</td>
<td>Oct 4</td>
</tr>
<tr>
<td>Occupy Wall Street: The Public is so Out of Touch with Today's Politicians</td>
<td>Oct 7</td>
</tr>
<tr>
<td>Propaganda By Deed: 99% Protesters #Occupy the Senate</td>
<td>Oct 12</td>
</tr>
<tr>
<td>Twice as many people Favorably view OWS, as Favorably view Tea Party</td>
<td>Oct 13</td>
</tr>
<tr>
<td>&quot;Civic Virtue&quot;</td>
<td>Oct 19</td>
</tr>
<tr>
<td>What the NYPD really thinks about OWS</td>
<td>Oct 20</td>
</tr>
<tr>
<td>Obscured Injustice - Challenge for OWS</td>
<td>Oct 22</td>
</tr>
<tr>
<td>Thinking about jail, race &amp; the OWS Movement</td>
<td>Oct 26</td>
</tr>
<tr>
<td>Join Populist Movement to Take Back America: Rally Behind Jobs Act, Here’s How</td>
<td>Sept 19</td>
</tr>
<tr>
<td>Occupy Wall Street protest: more photos and videos</td>
<td>Sept 21</td>
</tr>
<tr>
<td>very short diary on why we should join the Tea Party</td>
<td>Sept 24</td>
</tr>
<tr>
<td>Friday 9/30 in Boston: March Against Bank of America</td>
<td>Sept 29</td>
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## firedoglake

<table>
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<tr>
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<tr>
<td>Occupy Wall Street to March Against Foreclosure Fraud Settlement</td>
<td>Nov 4</td>
</tr>
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**Michelle Malkin**

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*Denotes post from blog marked by *The New York Times* as “opinion.”
Appendix B: Relevant Sections of Coding Scheme

1. Record name of website

2. Original article, post, or comment number

3. Title of article/post/comment (if applicable)

4. Name of author or commenter

5. Date of post/comment

10. What is the person’s stance toward OWS (as communicated through the post or comment)?
   0. Opinions solidly pro-Occupy
   1. Opinions mostly pro-Occupy
   2. Opinions relatively balanced between pro- & anti-Occupy – OR – no opinion – OR ambiguous opinion
   3. Opinions mostly anti-Occupy
   4. Opinions solidly anti-Occupy
   99. Comments are not relevant to Occupy

13. Which of the following people or groups does the author criticize in the post/comment?
   1. Occupy protestors
   2. Democrats
   3. Liberals / left
   4. The President / Obama / the Obama Administration
   10. Tea Party
   11. Republicans
   12. Conservatives / right
   13. Bush / Cheney / the Bush Administration
   20. The 1% / one-percenters
   21. Wealthy people / rich people
   22. Wall Street / banks / etc.
   23. The 99% / 99-percenters
   24. The majority / most of us / etc. [referring to economic majority of Americans]
   30. Workers / working class
   31. Poor people / lower classes / impoverished / unemployed
   32. Homeless / home foreclosed on (or in foreclosure)
   33. Unions / union members
   34. Taxpayers

1 Blog posts and comments were coded for other characteristics outside the purview of this article. The complete coding scheme is available upon request.
40. Politicians / government [politicians as a group, or government generally]
41. Businesses / corporate America [as a group or generally]
42. The media [the media as a coherent entity, or terms such as “pundits”]
43. Law enforcement / security personnel [can be general or specific reference, e.g., NYPD]
50. Drug users
51. Criminals
60. Political figure, or specific gov’t body or organization [insert name in parentheses; e.g., Romney, NRA, Congress]
61. Business leader, or specific company or organization [insert name in parentheses; e.g., Warren Buffet, GE]
62. Media figure, or specific company or organization [insert name in parentheses; e.g., Limbaugh, Fox News]
63. Entertainer or celebrity [insert name in parentheses; e.g., Joan Baez, Alec Baldwin]
90. Author of original blog post
91. Previous commenter’s pro-OWS views
92. Previous commenter’s Democratic / liberal / left views
93. Previous commenter’s anti-OWS views
94. Previous commenter’s Republican / conservative / right views
95. Previous commenter
100. Other [add description]
[if multiple targets, insert as “a,” “b,” “c,” “d”; UP TO FOUR (if more, rank first by importance, then by order)]

15. If the author has criticized a person or group or viewpoint, would you describe the criticism as “offensive”?
[in other words, discourse that is clearly disrespectful, rude, or demeaning; this is discourse that would be, for example, inappropriate at a public meeting; two examples are statements that include derogatory stereotypes or profanity directed toward a person or group]
1. Not offensive
2. Somewhat offensive
3. Highly offensive
[if multiple people or groups or viewpoints, insert as “a,” “b,” “c,” “d”]

16. Which of the following people or groups does the author compliment or approve of in the post/comment?
[same as 13]
Appendix C: Variable Construction

Ideological Social Judgment

Actors associated with the left include liberal or Democratic figures or organizations (e.g., Michael Moore, ACORN) or general references to liberals, Democrats, Occupy Wall Street participants, the 99%, or unions. Actors associated with the right include conservative or Republican figures or organizations (e.g., Romney, Fox News) and general references to conservatives, Republicans, the Tea Party, the 1%, wealthy people, Wall Street/banks, and law enforcement personnel (due to their role policing OWS protestors). Note that this coding procedure includes perceived OWS allies (e.g., “the 99%”) in the “left” category, and likely OWS opponents (e.g., banks, the police) in the “right” category in order to be comprehensive without sacrificing simplicity. Implementing a stricter definition of “left” and “right” by leaving OWS supporters and opponents out of the variable construction (i.e., considering commendations and criticisms of these actors to be ideologically neutral) does not substantially alter the results reported.

To construct the variable, each “liberal” mention (complimenting the left or criticizing the right) was coded as -1. Each “conservative” mention (complimenting the right or criticizing the left) was coded as 1. All mentions were summed. The original variable ranges from -5 to 5. It has been placed on a 0 to 1 scale for ease of interpretation.

Incivility

Each discrete criticism of a person or group in a post (up to four) was coded as not offensive (0), somewhat offensive (1), or highly offensive (2). Theoretically, this variable could contain substantial variation; however, in practice, coders found few posts with multiple offensive criticisms, and little “highly offensive” language. The actual range of the variable is from 0 (no offensive language) to 3 (either 3 instances of somewhat offensive criticism, or 1 somewhat offensive criticism and 1 highly offensive criticism). Two outliers with greater incivility were re-coded into the top category. The variable was then placed on a 0 to 1 scale.