How Users Take Advantage of Different Forms of Interactivity on Online News Sites: Clicking, E-Mailing, and Commenting

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This study examines the uptake of multiple interactive features on news sites. It looks at the thematic composition of the most clicked, most e-mailed, and most commented stories during periods of heightened and routine political activity. Results show that (a) during the former period, the most commented stories were more likely to be focused on political, economic, and international topics (or “public affairs” news) than the most clicked and most e-mailed articles. (b) The 3 types of interactivity exhibited a greater presence of public affairs content during the period of heightened political activity than during its routine counterpart. (c) As the period of heightened political activity unfolded, consumers’ propensity to click on, e-mail, and comment about public affairs stories increased.


Interactivity has long been considered a key element of new media (Boczkowski, 2002; de Sola Pool, 1983; Jenkins, 2006; Liewrouw & Livingstone, 2002). Thus, it is not surprising that it has been the subject of much discussion in studies of online news (Bucy, 2004; Chan & Leung, 2005; McMillan, 2002a; Richards, 2006; Sundar, 2004). But, these studies have not been able to reach conclusive findings about how users appropriate the interactive capabilities afforded by diverse kinds of digital media. At least three factors have contributed to this state of affairs. First, most scholarship has concentrated on media features or the social practices by which they are appropriated, but not on both at the same time (Kenney, Gorelik, & Mwangi, 2000; Oblak, 2005; Ruggiero, 2000; Stromer-Galley, 2004). This has led to the twin assumptions that the existence of certain interactive capabilities translates into their adoption by users, and that this adoption can be understood without making sense of these capabilities. Second, different types of interactive capabilities exist on news sites, such as clicking on a story, sharing it by e-mail, and posting a comment about it. However, studies usually examine only one type of interactivity at a time (Althaus & Tewksbury, 2002; Berger & Milkman, 2010; Domingo, 2008; Goss, 2007; Schultz, 2000). This makes it difficult to reach a comprehensive view of what interactivity has meant for online
news in particular and digital media in general. Such a view would emerge from understanding how users appropriate various types of interactive features. Third, studies tend to assume that uses of interactivity are static. However, “the Internet is part of a much larger fabric of communication and social interaction (…) and (people’s) actions online are influenced by their physical and social situation and history” (Katz & Rice, 2002, p. xxi). Thus, most studies fail to account for contextual variations that might trigger changes in how news audiences take advantage of interactivity features.

To address these limitations, this study examines the uses of three different interactive features made available by leading U.S. online news sites. It analyzes the thematic composition1 of the stories that were most often clicked, e-mailed, or commented on the sites of CNN, USA Today, and the Washington Post.2 It analyzes the stories during a time of heightened political activity—the electoral campaign of 2008—and a period of comparatively routine political activity—fall 2009—to ascertain whether these contextual changes are related to alteration in the thematic composition of these sets of stories. The analysis yields three main findings. During the time of heightened political activity, the most commented stories were more likely to be focused on political, economic, business, and international topics (or “public affairs” news) than the most clicked and most e-mailed articles. The greater presence of public affairs stories among the most commented articles was maintained on two of the three sites during the period of routine political activity. Second, uses of the three types of interactivity were characterized by a greater presence of public affairs topics during the 2 weeks surrounding Election Day 2008 than during the period of comparatively normal political activity. Finally, during the campaign, consumers’ propensity to click on, e-mail, and comment on public affairs stories increased as Election Day approached, although the variation was more marked for the most commented stories than for the other two sets of articles. This study makes two theoretical contributions to scholarship on interactivity. First, it adds conceptual specificity by demonstrating the various thematic dynamics linked to three main types of interactive features. Second, it expands our understanding of the factors that shape these features by shedding light on the role of contextual variation. What emerges from these two specific contributions is an overall view of interactivity as, following Mitchelstein and Boczkowski (2010), the “interdependence of [media] features and [social] practices” (p. 1094).

Theoretical considerations

Communication scholars have proposed that interactivity is one of the defining characteristics of new media (Boczkowski, 2002; Chung, 2007; de Sola Pool, 1983; Deuze & Dimoudi, 2002; Jenkins, 2006; McMillan, 2002b). Lievrouw and Livingstone argue that new media “give users the means to generate, seek, and share content selectively, and to interact with other individuals and groups, on a scale that was impractical with traditional mass media” (2002, p. 9). Moreover, researchers have
indicated that the expanded possibilities for audience participation are related to increased involvement in the public sphere (Bucy & Gregson, 2001; Hardy & Scheufele, 2005; Robinson, 2006; Shah, Cho, Eveland, & Kwak, 2005). Tedesco finds that “interactive features on Websites help young adults feel more informed about politics and more valuable or useful to the political process” (2004, p. 196).

Yet, interactivity is a contested concept (Heeter, 1989; Kiousis, 2002; Rafaeli, 1988). Jensen argues that “it seems unclear just what ‘interactivity’ and ‘interactive media’ mean” (1998, p. 185). For instance, while one stream of scholarship proposes a perception-based model of interactivity (Downes & McMillan, 2000; Morrison, 1998; Newhagen, Codes, & Levy, 1995), according to which interactivity is in the eye of the beholder (McMillan, 2002), another strand of research indicates that interactivity is defined by media attributes (Ahren, Stromer-Galley, & Neumann, 2000; Massey & Levy, 1999; Schultz, 2000). However, Sundar (2004) argues that defining interactivity as a perceptual variable is not fruitful, as that conceptualization situates the notion in the user rather than the medium, “obscures the true meaning of interactivity,” and leads to “lack of specification about which technological elements contribute to—or detract from—interactivity” (p. 386).

Authors who study interactivity as a medium attribute generally distinguish between two types of interactivity. The first is content, media, or user-to-document interactivity, “in which users can control the information they receive” (Stromer-Galley, 2000, p. 121). Second is human, interpersonal, or user-to-user interactivity, understood as communication between two or more users that takes place through a communication channel (Chung, 2007; Jensen, 1998; Massey & Levy, 1999; McMillan, 2002b). Building on this line of work, this study examines three different types of interactivity that commonly finds expression on online news Websites: clicking on stories, e-mailing them, and commenting on them. Clicking on stories is akin to selecting to read or watch them and thus constitutes a form of media interactivity. E-mailing and commenting on stories are two kinds of expressions of human interactivity. Whereas e-mailing articles entails sharing content within a smaller network of known individuals (friends, family, acquaintances), commenting on stories comprises communication within a larger network of unknown people. As stated above, in the case of news, no single study has examined the adoption of these different types of interactivity by users, thus limiting the ability to provide a more comprehensive view of interactivity.

Most of the research on these three types of interactivity has been affected by the tendency to focus on media features or social practices (Kenney, Gorelik, & Mwangi, 2000; Oblak, 2005; Ruggiero, 2000; Stromer-Galley, 2004). On the one hand, scholars have looked at interactive features made available by online newspapers (Bucy, 2004; Massey & Levy, 1999; Oblak, 2005; Quandt, 2008), television station Websites (Chan-Olmsted & Sug Park, 2000; Siapera, 2004), and political party Websites (Druckman, Kifer, & Parkin, 2007; Norris, 2003; Semetko & Krasnoboka, 2003). On the other hand, a different stream of research has surveyed audiences’ opinions on interactivity and have found that users vary in their appraisal of different interactive features (Chan
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& Leung, 2005; Chung & Yoo, 2008; Nguyen, 2010). For instance, Boczkowski (2010a) found that although online news consumers in Argentina participated in online polls because they associated the practice “with a positive affect marked by playfulness” (p. 163), most tended not to contribute content to forums and commentary spaces because they found them boring. Different appraisals of interactive features by audience members suggest that they will exhibit different patterns of uptake of and involvement with those features. To shed light on the links between different media features and user practices enacted in relation to these features, this study analyzes the thematic composition of the most clicked, e-mailed, and commented stories on leading online news sites.

Scholars disagree about whether citizens take advantage of interactive features to access public affairs information. Research usually compares clicking on news online with choosing what to watch on TV or deciding which news to read in a print newspaper. On the one hand, some studies suggest that online news use does not decrease access to public affairs information (Drew & Weaver, 2006; Eveland, Seo, & Marton, 2002; Xenos & Moy, 2007). Kenski and Stroud found “significant bivariate associations between Internet access and online exposure to campaign information and . . . political knowledge” (2006, p. 187). On the other hand, other research has shown that increased choice online reduces news consumers’ exposure to public affairs stories (Althaus & Tewksbury, 2002; Boczkowski & Peer, in press; Dalrymple & Scheufele, 2007; Prior, 2005). For instance, Tewksbury has argued that “online news readers do not select public affairs content as often as they select other news content” (2003, 705). Thus, we hypothesize that:

H1: Consumers of generalist, mainstream news media will click more frequently on a greater proportion of nonpublic affairs stories than public affairs news.

Sharing news stories via e-mail relates to studies of media sociability that highlight the extent to which news consumption is ingrained in existing social relations (Bausinger, 1984; Berger & Milkman, 2010; Bogart, 1955; Chan & Goldthorpe, 2007). This scholarship has shown that news consumers usually share nonpublic affairs stories with their acquaintances to steer clear of controversial issues (Jensen, 1990; Ling & Thrane, 2002; Martin, V. B., 2008). Boczkowski found that conversations about online news with coworkers “often gravitate toward light topics or work-related stories and avoid sensitive political or economic topics” (2010b, p. 477). Palmgreen, Wenner, and Rayburn argued that social information involves “essentially non-issue-related elements, such as accidents, natural disasters, popular non-political figures, the personal lives of politicians, and so on” (1980, p. 187). Therefore:

H2: Consumers of generalist, mainstream news media will e-mail more frequently a greater proportion of nonpublic affairs stories than of public affairs news.

The scholarship on users’ comments on articles has obtained inconclusive findings. Although some scholars suggest that the anonymity of online expression dispels fear of conflict and disagreement, thus allowing citizens to participate
more freely (Bohman, 2004; Min, 2007; Price, 2006; Stromer-Galley, 2001), research indicates that only a minority of the public contributes content (Boczkowski, 2010a; Davis, 2009; Goss, 2007; Schultz, 2000). Although some studies of user-generated content find that members of the public privilege nonpublic affairs topics, such as personal life and entertainment, in their participatory practices (Gans, 2007; Herring, Scheidt, Wright, & Bonus, 2005; Ornebring, 2008; Papacharissi, 2007), other authors argue that media audiences focus on public affairs topics when creating content online (Ancu & Cozma, 2009; Benkler, 2006; Singer, 2009; Song, 2007; Tanner, 2001). Although some scholars have contended that interactive media fosters participation among audience members who are already interested in the political process (Bimber & Davis, 2003; DiMaggio, Hargittai, Neuman, & Robinson, 2001; Norris, 2000), recent research indicates that users who take advantage of user-to-user interactivity increase their offline political participation (Hardy & Scheufele, 2005; Shah et al., 2005, 2007); feel more informed on politics and more competent when facing political questions (Jensen, 2003), and report higher levels of internal and external political efficacy (Nisbet & Scheufele, 2004). Thus, we hypothesize that:

H3: Consumers of generalist, mainstream news media will comment on public affairs articles more frequently than on nonpublic affairs news stories.

In light of the preceding discussion about varying forms of uptake of different interactive features on news sites, we also hypothesize that:

H4: There will be a thematic gap between the most commented articles, and the most clicked and e-mailed news stories, with the former list featuring more public affairs stories than the latter.

A key factor that has limited research on the uses of interactive features by online news consumers is that studies have often looked at periods of either heightened or routine political activity and then tended to assume that the practices enacted by users are static, so that the insights gained about one period can apply to the other. However, research suggests that interest in public affairs topics varies in relation to the political context and the information available to users (Cho, 2008; Holbrook, 1996; Just et al., 1996; Tewksbury, 2006). Xenos (2008) found that blog posts about the nomination of Judge Samuel Alito to the U.S. Supreme Court increased with the release of the archival documents concerning Alito’s prior application to the Attorney General’s office. Changes in the degree of interest shown by news consumers in accessing, producing, and disseminating public affairs content during times of heightened political activity could be interpreted as an instance of the monitorial citizenship model (Arnold, 2006; Graber, 2004; Zaller, 2003). According to this model, the alertness of citizens is cyclical, and members of the public scan the information environment, apparently inactive, but “poised for action if action is required” (Schudson, 1998, p. 311). To address this limitation, this study includes data collected during a period of heightened political activity (the 2008 U.S.
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presidential campaign) and a period of routine political activity (fall 2009). More formally, we hypothesize that there will be the following inter- and intra-annual effects related to contextual variation:

H5: During a time of routine political activity, consumers of generalist, mainstream news media will click on, comment on, and send by e-mail more frequently a greater proportion of nonpublic affairs stories than during a period of heightened political activity.

H6: As a major political event like Election Day approaches, there will be an increase in the percentage of public affairs news in the stories that consumers click on, e-mail, and comment.

Methods

The study uses data from three U.S. English-language sites affiliated with news outlets of national reach: 

cnn.com (CNN), usatoday.com (USA Today), and washingtonpost.com (Washington Post). These sites had a combined monthly average of more than 50 million unique users in 2008 (Nielsen, 2008; Project for Excellence in Journalism, 2009). CNN is the third most visited online news site in the United States, with a 2008 monthly average of more than 31 million unique users (Project for Excellence in Journalism, 2009). It is the online counterpart of the CNN, which had a median prime time audience of 1.05 million viewers during 2008 (Project for Excellence in Journalism, 2009). The Washington Post and USA Today were the third and fourth most visited Websites of print newspapers, with more than 11.1 million and 10.3 million unique users for November 2008, respectively (Nielsen, 2008). The Washington Post and the USA Today had average daily circulations of approximately 623,000 and 2,293,000, respectively, for the 6-month period ending in September 2008 (Audit Bureau of Circulations, 2009). The selection of the cases was conducted in accordance with a dual strategy. First, these sites are all of national reach, and made the relevant information about consumer news choices publicly available at the time of the study. Second, they cater to different types of audiences and vary in the degree of concentration on public affairs news. CNN is a generalist outlet (Groshek, 2008) the audience of which includes mostly Democrats and Independents (Pew, 2011; Stroud, 2008). USA Today is also a generalist outlet (Gladney, 1993) with centrist leanings (Groseclouse & Milyo, 2005). Finally, the Washington Post has liberal leanings (Groseclouse & Milyo, 2005) and a stronger focus on political coverage (Farnsworth & Lichter, 2005; Martin, C. R., 2008). Analyzing diverse news outlets allows this study to ascertain whether the differences in the thematic composition of the stories selected for the various types of interactivities share fundamental characteristics across the sites selected, in spite of the differences across each site’s audience.

Data were collected in two waves. The first wave provided information on the thematic composition of the most clicked, most e-mailed, and most commented
stories during a period of heightened political activity. It consisted of 68 days during 15 weeks (between 4 and 5 days for each of the weeks) between August 1 and November 9, 2008, from Monday to Sunday. Because this wave aimed to examine which topics attracted audience participation during a period of heightened interest in politics, data were collected according to a convenience sample of days that included, first, approximately the same number of days of the week during the 15 weeks sampled; second, the dates of major, prescheduled political events. These latter periods include the Democratic Convention (August 25–28), the Republican Convention (September 1–4), the presidential debates (September 26, October 7, and 15), and 14 consecutive days around Election Day (October 27–November 9). The second wave provided a window into the three types of interactivity during a period of normal political activity. It took place in 2009 and consisted of 2 weeks that matched the 14-day period around Election Day of the previous year (October 26–November 8). On each data collection day, a research assistant retrieved data from all three sites at 3 p.m. U.S. Central Time. From the data collected in 2008, only the 14 days around Election Day were utilized to make inter-annual comparisons. The remaining 2008 data were utilized to assess intra-annual trends.

For each data collection day, three types of stories were gathered and identified. They included (a) the top 10, “most clicked” stories made publicly available by each of these sites, usually under rubrics such as the “most popular” and “most viewed” stories (hereafter, “most clicked”); (b) the top 10, “most e-mailed” stories, also publicly available on each site (hereafter, “most e-mailed”); and (c) the top 10, “most commented” stories displayed on each of these sites, (hereafter, “most commented”). The study concentrates on these stories because they represent one kind of media interactivity (most clicked) and two kinds of human interactivity (most e-mailed and most commented). Online stories were defined as text-based packages that included a headline; a story might, but need not, have multimedia features or links to related stories. The analysis included 2,458 most clicked stories (2,039 from 2008 and 419 from 2009), 2,433 most e-mailed articles (2,017 from 2008 and 416 from 2009), and 2,437 most commented stories (2,017 from 2008 and 420 from 2009) from the three sites.

The unit of analysis was the story. Two variables were coded: news choice and story content. Variable and category definitions are as follows:

Type of interactivity (three categories):

(a) most clicked — the top 10 stories in the “most clicked” list of each site;
(b) most e-mailed — the top 10 stories in the “most e-mailed” list of each site;
(c) most commented — the top 10 stories in the “most commented” list of each site.

Story content: the main topic addressed in the story (two categories):
(a) public affairs stories, dealing with news about politics, government, economics, business, and international affairs. Included are stories about the activity of government, elected officials, political candidates; the economy and business developments; and, events, happening in other countries, about the state or international organizations.

(b) nonpublic affairs stories about sports, crime, entertainment, technology, and weather. Included are stories about sports teams and events; criminal activity; visual/performing arts, and literature; medical, scientific, and technological matters; and routine and nonroutine weather information. If a story appeared to be a nonpublic affairs subject (e.g., a scientific discovery) but its content dealt with public affairs matters (e.g., the discovery’s political impact), it was considered a public affairs story for the analysis.

Three trained research assistants coded the stories. Intercoder agreement was assessed on a subset of 11% of the data. For story content, regular intercoder agreement levels averaged 86%, and Cohen’s Kappa intercoder agreement was 0.72.10 The authors were consulted about doubts and conflicts, which were resolved consensually.

Findings

The thematic patterns that capture the similarities and differences among the various types of interactivity can better be appreciated by comparing the percentage of public affairs news across the most clicked, most e-mailed, and most commented stories, and then examining the role of contextual variation—both inter- and intra-annually.

Regarding the most clicked stories, during the period of routine political activity, consumers at two of the sites selected to read a larger percentage of nonpublic affairs articles (70% at CNN [t = −10.2910, p = .0000] and 69% at USA Today [t = −9.6893, p = .0000]) than nonpublic affairs stories, while at the Washington Post, the stories that received the most clicks were more likely to public affairs articles (69%, [t = 9.4326, p = .0000]) (Table 1). Moreover, during the 2 weeks around Election Day in 2008, consumers chose to read a larger percentage of public affairs stories than nonpublic affairs stories at all three sites (59% at CNN [t = 4.4576, p = .0000], 91% at Washington Post [t = 33.0762, p = .0000], and 63% at USA Today [t = 6.2750, p = .0000]) (Table 1). Thus, Hypothesis 1 is partially confirmed for the period of routine political activity and refuted during the time of heightened political activity.

Concerning the most e-mailed stories, during the period of normal political activity, consumers at CNN and USA Today shared a larger percentage of nonpublic affairs stories (81% at CNN [t = −18.6538, p = .0000] and 57% at USA Today [t = −3.0793, p = .0025]). However, at the Washington Post, only 29% of the stories consumers chose to forward to their acquaintances were about nonpublic affairs [t = 11.3026, p = .0000] (Table 1). During the period of heightened political activity, consumers also e-mailed a larger percentage of public affairs articles on two
Table 1  Comparison of Thematic Composition of Most Clicked, Most E-mailed, and Most Commented Stories, Within List and Between Periods

<table>
<thead>
<tr>
<th>Most Clicked</th>
<th>Heightened Political Activity</th>
<th>Routine Political Activity</th>
<th>Diff</th>
<th>Most E-mailed</th>
<th>Heightened Political Activity</th>
<th>Routine Political Activity</th>
<th>Diff</th>
<th>Most Commented</th>
<th>Heightened Political Activity</th>
<th>Routine Political Activity</th>
<th>Diff</th>
</tr>
</thead>
<tbody>
<tr>
<td>CNN</td>
<td>n = 140</td>
<td>n = 140</td>
<td></td>
<td>CNN</td>
<td>n = 136</td>
<td>n = 138</td>
<td></td>
<td>CNN</td>
<td>n = 126</td>
<td>n = 140</td>
<td></td>
</tr>
<tr>
<td>PA</td>
<td>59.29</td>
<td>30</td>
<td>29.29</td>
<td>PA</td>
<td>41.91</td>
<td>18.84</td>
<td>23.07</td>
<td>PA</td>
<td>93.65</td>
<td>22.86</td>
<td>70.79</td>
</tr>
<tr>
<td>NPA</td>
<td>40.71</td>
<td>70</td>
<td></td>
<td>NPA</td>
<td>58.09</td>
<td>81.16</td>
<td></td>
<td>NPA</td>
<td>6.35</td>
<td>77.14</td>
<td></td>
</tr>
<tr>
<td>Washington Post</td>
<td>n = 140</td>
<td>n = 140</td>
<td></td>
<td>Washington Post</td>
<td>n = 140</td>
<td>n = 140</td>
<td></td>
<td>Washington Post</td>
<td>n = 140</td>
<td>n = 140</td>
<td></td>
</tr>
<tr>
<td>PA</td>
<td>90.71</td>
<td>68.57</td>
<td>22.14</td>
<td>PA</td>
<td>86.43</td>
<td>71.43</td>
<td>15</td>
<td>PA</td>
<td>100</td>
<td>95.71</td>
<td>4.29</td>
</tr>
<tr>
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<td>31.43</td>
<td></td>
<td>NPA</td>
<td>13.57</td>
<td>28.57</td>
<td></td>
<td>NPA</td>
<td>0</td>
<td>4.29</td>
<td></td>
</tr>
<tr>
<td>USA Today</td>
<td>n = 140</td>
<td>n = 139</td>
<td></td>
<td>USA Today</td>
<td>n = 140</td>
<td>n = 138</td>
<td></td>
<td>USA Today</td>
<td>n = 140</td>
<td>n = 140</td>
<td></td>
</tr>
<tr>
<td>PA</td>
<td>62.86</td>
<td>30.94</td>
<td>31.92</td>
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<td>53.57</td>
<td>43.48</td>
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<td>83.57</td>
<td>64.29</td>
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<td></td>
<td>NPA</td>
<td>16.43</td>
<td>35.71</td>
<td></td>
</tr>
</tbody>
</table>

NPA = nonpublic affairs; PA = public affairs.
of the sites (85% at *Washington Post* \[t = 25.0811, p = .0000\] and 54% at *USA Today* \[t = 1.9405, p = .0543\]), and a larger percentage of nonpublic stories at CNN (58%) \[t = -3.8097, p = .0002\] (Table 1). Taken together, these results partially confirm Hypothesis 2 for the period of routine political activity and partially refute it for the period of heightened political activity.

Furthermore, during the period of routine political activity, consumers at two of the sites commented on a larger percentage of public affairs stories (64% at *USA Today* \[t = 7.0311, p = .0000\], and 96% at *Washington Post* \[t = 53.2193, p = .0000\]), although public affairs articles only make up 23% of the most commented list at CNN \[t = -15.2409, p = .0000\] (Table 1). In addition, during the period of heightened political activity, consumers at the three sites commented on a larger percentage of public affairs stories (94% at CNN \[t = 40.0274, p = .0000\], 84% at *USA Today* \[t = 21.3633, p = .0000\], and 100% at *Washington Post* (Table 1). Thus, Hypothesis 3 is partially confirmed for the former period and fully confirmed for the latter one.

During the period of normal political activity, a comparison of the prevalence of stories about public affairs topics across the three lists reveal that, at two of the sites analyzed, the most commented stories were more likely to be about public affairs news than the most e-mailed and the most clicked stories. At the *Washington Post*, 96% of the most commented articles were about public affairs topics, compared to 71% among the most e-mailed list \(\chi^2 = 30.0706, p = .000\) and 69% among the most clicked stories \(\chi^2 = 35.1583, p = .000\). At *USA Today*, 64% of the most commented stories were about public affairs news, while 43% of the most e-mailed \(\chi^2 = 12.1112, p = .001\) and 31% of the most clicked articles \(\chi^2 = 31.0990, p = .000\) were about those topics. This thematic gap becomes uniform during the period of heightened political activity. At CNN, 94% of the articles in the most commented list were about public affairs topics, compared to 42% of the most e-mailed \(\chi^2 = 78.9387, p = .000\) and 59% of the most clicked stories \(\chi^2 = 42.4136, p = .000\). At the *Washington Post*, all the most commented stories were about public affairs news, compared to 87% of the most e-mailed \(\chi^2 = 20.3831, p = .000\) and 91% of the most clicked \(\chi^2 = 13.6330, p = .000\) articles. At *USA Today*, 84% of the stories in the most commented list were about public affairs news, while 54% of the most e-mailed \(\chi^2 = 29.2330, p = .000\) and 63% of the most clicked articles \(\chi^2 = 15.3158, p = .000\) were about those topics. These results lend partial confirmation of Hypothesis 4 for the period of routine political activity and full confirmation for the time of heightened political interest.11 Regarding the variance between the periods of heightened and routine political activity within the three sets of stories, the analysis shows that, across the three types of interactivity, there is a greater presence of public affairs stories during the two weeks around Election Day than at the time of routine political activity almost exactly a year later (Table 1).12 During the period of heightened political activity, consumers clicked on a greater proportion of public affairs stories than during the corresponding two-week period in 2009. During the period of routine political activity, the percentage of public affairs news diminished by 29 percentage points on CNN \(\chi^2 = 24.2932, p = .000\), 22 percentage points on
Washington Post ($\chi^2 = 21.1691, p = .000$), and 32 percentage points on USA Today ($\chi^2 = 28.5359, p = .000$). The analysis of the most e-mailed stories indicates that the percentage of public affairs news also declined between the two periods. In 2009, the percentage of most e-mailed public affairs stories diminished by 23 percentage points on CNN ($\chi^2 = 17.2662, p = .000$), 15 on Washington Post ($\chi^2 = 9.4701, p = .002$), and 10 on USA Today ($\chi^2 = 2.8342, p = .092$). It is interesting to note that the magnitude of the decrease in public affairs topics was greater across the most clicked stories than the most e-mailed stories, which indicates that the topics that news consumers e-mailed to their acquaintances remained more stable than those they clicked on. Among the most commented stories, the proportion of public affairs news also decreased between the period of heightened political activity and the corresponding 2-week period in 2009. The prevalence of public affairs news in the most commented stories decreased by 71 percentage points on CNN ($\chi^2 = 135.151, p = .000$), 4 percentage points on Washington Post ($\chi^2 = 6.131, p = .013$), and 20 percentage points on USA Today ($\chi^2 = 13.508, p = .000$). Thus, Hypothesis 5 is confirmed.

In addition to these interannual patterns of change, the analysis of these three types of interactivity during the weeks leading up to Election Day also demonstrates dynamism (Table 2). A logit regression of the content of the stories by week (in which Week 1 is 3 weeks before the first national convention, and Week 15 is the week that includes Election Day) shows that the odds of a story in the most clicked list being about public affairs topics had a weekly increase of 8 percentage points on CNN, 12 on Washington Post, and 11 on USA Today. A logit regression of the content of the most e-mailed stories indicates that the odds of an article being about public affairs also increased weekly—by 6 percentage points on CNN, 9 on Washington Post, and 7 on USA Today. During the same period, the probabilities of an article in the most commented list being about a public affairs topic had a weekly increase of 20 percentage points on CNN, 21 on Washington Post, and 6 on USA Today. As a whole, the most commented stories appear to be the most variable ones intra-annually, with weekly increases in odds higher than 20 percentage points on two of the sites. In addition, the most clicked stories register higher levels of variation than the most e-mailed ones on the three sites. This confirms Hypothesis 6.

Discussion

This study aims to contribute to understanding the uses of different types of interactivity on online news sites and the modifications of those practices across periods of different levels of political activity. The findings indicate that during the period of routine political activity, one type of human interactivity—commenting on news articles—was more likely to be focused on public affairs topics than an instance of media interactivity—clicking on stories, and a second kind of human interactivity—sharing articles by e-mail. The greater presence of public affairs stories in the most commented articles was also evident during the period of heightened
Table 2 Logit Regression of “Content” on “Week,” for Most Clicked, Most E-mailed, and Most Commented Stories, Weeks 1–15 (the week including Election Day) of 2008 Data, by Site

<table>
<thead>
<tr>
<th>Most Clicked</th>
<th>Coefficient</th>
<th>Percentage Change in Odds of a Story Being About a Public Affairs Topic</th>
<th>Most E-mailed</th>
<th>Coefficient</th>
<th>Percentage Change in Odds of a Story Being About a Public Affairs Topic</th>
<th>Most Commented</th>
<th>Coefficient</th>
<th>Percentage Change in Odds of a Story Being About a Public Affairs Topic</th>
</tr>
</thead>
<tbody>
<tr>
<td>CNN</td>
<td>0.07416</td>
<td>7.7</td>
<td>CNN</td>
<td>0.05542</td>
<td>5.7</td>
<td>CNN</td>
<td>0.18779</td>
<td>20.7</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(z = 4.107, p = .000)</td>
<td></td>
<td></td>
<td>(z = 3.012, p = .003)</td>
<td></td>
<td></td>
<td>(z = 6.534, p = .000)</td>
</tr>
<tr>
<td>Washington Post</td>
<td>0.11065</td>
<td>11.7</td>
<td>Washington Post</td>
<td>0.08644</td>
<td>9</td>
<td>Washington Post</td>
<td>0.19214</td>
<td>21.2</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(z = 4.535, p = .000)</td>
<td></td>
<td></td>
<td>(z = 3.675, p = .000)</td>
<td></td>
<td></td>
<td>(z = 2.218, p = 0.027)</td>
</tr>
<tr>
<td>USA Today</td>
<td>0.10839</td>
<td>11.4</td>
<td>USA Today</td>
<td>0.06704</td>
<td>6.9</td>
<td>USA Today</td>
<td>0.05772</td>
<td>5.9</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(z = 5.872, p = .000)</td>
<td></td>
<td></td>
<td>(z = 3.734, p = .000)</td>
<td></td>
<td></td>
<td>(z = 2.807, p = .005)</td>
</tr>
</tbody>
</table>
political activity. Moreover, the three types of interactivity had a greater presence of public affairs topics during the 2 weeks around Election Day 2008 than during the period of routine political activity, although the thematic composition of the most e-mailed list remained more stable than that of the most commented and most clicked lists. Finally, the thematic composition of the stories that were the object of the three instances of interactivity also exhibited significant dynamism during the final 4 months of the presidential campaign. This dynamism was more marked for the most commented stories than for the most clicked and most e-mailed articles.

The findings show that online news consumers take advantage of various interactive features on online newspapers in different ways, and their practices change in relation to contextual matters, such as varying degrees of intensity of political activity. Thus, this study contributes to theoretical development on interactivity by providing conceptual specificity and identifying a key explanatory factor. This underscores the heuristic value of combining research on media features and the social practices associated with those features and looking at multiple types of interactivity within a single project. Had this study focused on one type of interactivity, it would not have elicited the differences in the thematic composition of the stories that were the focus of the three kinds of interactive behavior. Moreover, had the research design concentrated solely on the interactive features made available by news sites, it would not have captured the varying forms in which online news consumers appropriate those features. In addition, the study shows that user practices enacted in relation to interactive features are not static, but vary both intra- and interannually in connection with contextual developments. Had the study relied on data collected at a single point in time, it would have missed the role of contextual matters in shaping the varying uptake of different types of interactivity. More generally, the notion of interactivity that results from this analysis is marked by the interdependence of media features and social practices. An analysis of interactivity that privileges media features is likely to miss the role of variations in social practices. Conversely, focusing mostly on these practices runs the risk of disregarding the affordances of various features. Thus, it is only by paying attention to features, practices, and their interdependences that one can make sense of the differences among clicking, e-mailing, and commenting behavior revealed in the analysis presented here.

Two limitations in this study should be addressed in future research. First, the research design included three sites affiliated with mainstream and generalist news organizations. An analysis of use practices of interactive features on other sites, such as blogs, specialist media, and news rankings and aggregators would offer a more thorough account how news consumers take advantage of different interactive features. Second, the three sets of stories analyzed—most clicked, most e-mailed, and most commented—are probably not selected by the same population of online news users. Previous research suggests that a small percentage of news consumers e-mail and comment on stories from the much larger universe of consumers who click on the stories available on online news sites (Boczkowski, 2010b; Davis, 2009; Goss,
Clicking, E-mailing, and Commenting
P. J. Boczkowski & E. Mitchelstein

2007; Schultz, 2000). Although the information on the numbers of clicks, e-mails, and comments in relation to each story was not made public by any of the sites examined, potential differences in the frequency with which each type of interactivity is enacted by different members of the online news audience should be examined in future studies.

The greater percentage of public affairs topics in the most clicked stories during the 2 weeks around Election Day suggests that the behavior of news consumers varies according to the social and political context. Rather than fostering interest in (Drew & Weaver, 2006; Eveland, Seo, & Marton, 2002; Xenos & Moy, 2007) or disaffection from (Althaus & Tewksbury, 2002; Dalrymple & Scheufele, 2007; Prior, 2005) public affairs topics, access to online news appears to allow both types of behavior in relation to different levels of political activity. As Katz and Rice note, “although potentially influential, the Internet is not politically transformative (but rather) a complement to traditional politics” (2002, p. 332). In this study, the smaller percentage of public affairs news among the most clicked stories during the period of routine political activity at two of the sites confirmed the expectation that consumers would choose to read mostly nonpublic affairs articles. But the hypothesis was fully refuted during the period of heightened political activity, when audience members at the three sites analyzed selected to click on a larger percentage of public affairs news. Thus, increased interest in public affairs news suggests that news audiences tend to behave as monitory citizens (Schudson, 1998). This finding provides empirical evidence for the mostly normative debate between the “burglar alarm” (Zaller, 2003) standard, which indicates that news media should strive to draw citizens’ attention to urgent and consequential political matters, and the “full information” (Bennett, 2003) standard for news, which advocates thorough coverage of public affairs matters.

The comparatively lower prevalence of public affairs topics in the most e-mailed articles than in the most clicked and commented stories suggests that forwarding stories by e-mail is influenced by the stability of preexisting sociability patterns. It evokes the same avoidance of potentially controversial topics in sociability online as traditional media (Boczkowski, 2010a; Jensen, 1990; Ling & Thrane, 2002; Palmgreen et al., 1980). That the thematic composition of the most e-mailed articles shows the least propensity to change between the periods of high and low political activity indicates that, regardless of the context, the default behavior of online audiences is to avoid potentially controversial, public affairs topics in their interactions with people they know. This, in turn, might challenge the widespread applicability of the notion that individuals who expose themselves to high levels of political information act as “influentials” (Katz & Lazarsfeld, 1955) regarding political issues, by relaying urgent political matters to the rest of the citizenry via their social contacts (Arnold, 2006; Prior, 2007).

In contrast, the greater predominance of public affairs topics among the most commented stories than in the other two types of interactivity at the three sites examined at the time of intense political activity indicates that users who post comment on news stories do take advantage of the relative anonymity afforded by online
newspapers to express their opinion on potentially controversial issues (Bohman, 2004; Min, 2007; Price, 2006; Stromer-Galley, 2001). Moreover, the difference in the percentage of public affairs news stories among the most commented articles during the two weeks around Election Day and the matching two weeks in the following year, as well as the evolution of the thematic composition of the most commented articles during the final 15 weeks of the presidential campaign, provide further evidence for the notion that news audiences behave as monitorial citizens. Online news consumers who choose to post comments on stories appear to scan their environment and express their opinions on public affairs broadly rather than within their comparatively smaller social networks during times of high interest in politics, but they focus on other matters in greater proportion during uneventful periods. Regarding issues of conceptual specificity, as noted above, many studies of interactivity traditionally organize the phenomenon into two types: content interactivity and user-to-user interactivity. The findings presented here suggest that although this distinction proves to be valuable when analyzing the features present in various media, it may not suffice to fully comprehend the social practices through which interactivity is enacted. When comparing one type of content interactivity with two types of user-to-user interactivity this study finds that the thematic composition of content interactivity (clicking) and one instance of user-to-user interactivity (e-mailing) have more in common than the other instance of user-to-user interactivity (commenting). This divergence from one of the traditional organizers in the field suggests that it is worth adding an important dimension to conceptualizations of interactivity: the distinction between interaction with known and unknown users.

Taken together, these contributions highlight the changing and diverse relationships between interactive media features and the social practices afforded by those features. They underscore the value of distinguishing between different types of interactivity and the usages by which they are appropriated. They also point to the persistence of practices associated with traditional media, such as the avoidance of controversial topics when discussing news within individuals’ known social networks and to potential innovations brought about by the use of interactive media, which include the possibility to discuss political issues anonymously with a wider set of people. Thus, this analysis has shown that online news in particular, and digital media in general, evolve through a dynamic blend of established and emerging practices. Research that unpacks the complex relationships between technological capabilities, practices of use, and broader social circumstances can help to make sense of this evolution. We trust that this study represents a step in this direction.

Acknowledgments

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the reviewers for constructive criticism and suggestions, and Jim Katz for patiently helping us produce a stronger article. All shortcomings that remain are, of course, our responsibility. Finally, we dedicate this piece to Russ Neuman, for inspiring generations of scholarship on media, technology, and society, and for a memorable conversation with the first author at a coffee place on Broadway and 116th on a cloudy Saturday morning a few years back.

Notes

1 Thematic composition refers to whether the main subject(s) covered in each story are either about public affairs (politics, economics, and international topics), or about non-public affairs (subjects such as entertainment, sports, crime, and weather).

2 These sites were selected because of their prominence and the fact that they made the information about the most clicked, e-mailed, and commented articles publicly available. At the time the data were collected for this study, the New York Times did not make the list of “most clicked” stories publicly available.

3 “Campaign information” was measured using a question from the 2000 National Annenberg Election Study which inquired “How many days in the past week did you see information about the campaign for president online?” As Kenski and Stroud note, “The wording of the Internet exposure item is sufficiently ambiguous to allow respondents to include a wide variety of information sources (e.g., Internet discussion, e-mails, and Websites)” (2006, p. 190).

4 Data for the Washington Post refers to the Monday to Friday circulation to enhance comparability with USA Today, which does not have a print edition on weekends. During this period, the Washington Post had an average circulation of 584,313 on Saturday and 866,057 on Sunday (Audit Bureau of Circulations, 2009).

5 Data were collected on approximately 4 days during each of the 15 weeks, and the final sample of data collection days was comprised by 10 Mondays, 9 Tuesdays, 9 Wednesdays, 9 Thursdays, 10 Fridays, 11 Saturdays, and 10 Sundays.

6 Because of technical issues, data could not be collected on the day of the vice-presidential debate.

7 On November 3, 2009, there were off-year elections, which included gubernatorial elections with national implications in New Jersey and Virginia, because both states switched from Democratic to Republican governors. Thus, this second wave was not devoid of political activity.

8 Although the populations accessing the sites studied may not be exactly identical in the two periods of data collection, studies indicate that news consumption practices form in young adulthood and are fairly stable from that point onwards (Diddi & La Rose, 2006, Lewis, 2008; Prior, in press).

9 The difference from the expected number of stories ($n = 2,460$) for each type of interactivity results from sites posting fewer than ten stories in their “most clicked,” “most e-mailed,” and “most commented” rankings during a few days. The difference between the expected and actual number of stories is 0.08% for the most clicked, 1.10% for the most e-mailed, and 0.81% for the most commented stories.
10 Landis and Koch (1977) consider this coefficient “substantial,” and Fleiss, Levin, and Paik (2003) deem values between 0.40 and 0.75 “fair to good agreement beyond chance,” and values above 0.75, “excellent agreement beyond chance” (p. 604).

11 A comparison of the thematic composition of the three lists, excluding the stories that are featured on more than one list, did not reveal significant results.

12 An analysis of the thematic composition of the stories on the homepages of these three online news sites, reported in another article (Authors A & B, manuscript), reveals that there was no significant difference between the percentage of public affairs news during the 2 weeks surrounding Election Day in 2008 and the percentage of public affairs stories during the 2 weeks of 2009 that matched the 14-day period around Election Day of the previous year. Thus, differences between the thematic composition of the most clicked, most e-mailed, and most commented stories of 2008 and 2009 cannot be explained by variations in the news supply.

13 As information on the profiles of consumers who click, e-mail, and comment in relation to each story was not made public by any of the sites examined, it is also possible that during election season, entertainment seekers abandon online newspapers, and citizens who tend to follow political issues (and thus embody the full information model) dominate the most clicked, most e-mailed, and most commented rankings.

References


Clicking, E-mailing, and Commenting  
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클릭하기, 이메일보내기, 그리고 코멘트하기:
어떻게 사용자들이 온라인 뉴스사이트에서 상호작용의 다른 형태들의 장점을
선택하는가에 대한 연구

요약

본 연구는 뉴스 사이트에서 여러 상호작용 측면들의 사용을 연구한 것이다. 이것은
중점적으로 강조된 상황과 일반적인 정치적 행위 기간동안 가장 많이 방문하고,
이메일을 보내고, 코멘트화된 이야기들의 주제별 영역을 조사하였다. 결과들은 (1)
강조된 정치적 행위 기간 동안에는 가장 많은 방문자를 보여주고 이메일이 보내진
기사들보다도 가장 코멘트가 많은 이야기들이 정치적, 경제적 그리고 국제적 토픽들을
강조한 것으로 나타났다. 결과들은 또 (2) 일반적인 상황에서 보다는 중점적으로 강조된
정치적 행위기간 동안에 이들 3가지 상호작용들이 정책축면에 강조점을 둔 것으로
나타났다. 마지막으로 (3) 강조된 정치적 행위들이 전개되면서, 정책기사들에 대해
독자들이 방문하고, 이메일을 보내고 코멘트하는 경향이 증가하는 것으로 나타났다.
Haciendo Clic, Mandando un Correo Electrónico, y Comentando:
Cómo los Usuarios Toman Ventaja de las Formas Diferentes de Inactividad en los Sitios de Noticias Online

Resumen
Este estudio examina el consumo de sitios de noticias con características interactivas múltiples. Mira a la composición temática de los sitios más cliqueados, con más correos electrónicos, y con más historias comentadas durante períodos de actividad política intensificada y rutinaria. Los resultados muestran que (a) durante el período anterior, las historias más comentadas se enfocaron más probablemente en temas políticos, económicos, e internacionales (o noticias de “asuntos públicos”) que las más cliqueadas y que los artículos con más correos electrónicos. (b) Los 3 tipos de interactividad exhibieron una gran presencia de contenido de los asuntos públicos durante el período de actividad política intensa que durante su contraparte rutinaria. (c) A medida que el período de actividad política intensificada se desarrollaba, aumentó la propensión de los consumidores a hacer clic, mandar un email, y comentar las historias sobre asuntos públicos.

Palabras claves: interactividad, medios interactivos, comunicación política, noticias online, elecciones en los EE.UU., noticias sociales, redes, discusión online
Clics, courriels et commentaires : comment les usagers profitent des différentes formes
d’interactivité sur les sites de nouvelles en ligne

Cette étude examine l’usage de nombreux éléments interactifs sur les sites de nouvelles. Il
s’attarde à la composition thématique des nouvelles les plus cliquées, les plus envoyées par
courrier électronique et les plus commentées lors de périodes de grande activité politique ou
d’activité politique régulière.

Les résultats montrent que a) pendant la période de grande activité politique, les nouvelles les
plus commentées avaient plus tendance à porter sur des sujets politiques, économiques et
internationaux (soit des nouvelles « d’affaires publiques ») que les articles les plus visités et les
plus envoyés par courriel; b) les 3 types d’interactivité affichaient un plus haut degré de contenu
d’affaires publiques dans la période de grande activité politique que dans la période d’activité
régulière; et c) au fil de la période de plus grande activité politique, la propension des
consommateurs à cliquer sur des histoires d’affaires publiques, à les envoyer par courriel et à les
commenter augmentait.

Mots clés : interactivité, médias interactifs, communication politique, nouvelles en ligne,
élections américaines, nouvelles sociales, réseaux, discussion en ligne
点击，电子邮件，和评论：用户如何利用新闻网站互动特征

摘要

围绕新闻网站的多维度交互式特征，本文探讨了政治活跃期和政治常规期点击率最高，电子邮件最多，评论最多的新闻主题。研究结果显示（a）政治常规期，评论最多的新闻主题比点击率最高，电子邮件最多的新闻主题更可能集中在政治，经济，和国际事务（或公众事务）上；（b）相较政治常规期，这三类交互方式在政治活跃期都倾向性的集中在公众事务上；(c) 随着政治活跃度的增加，交互平台使用者会更加积极地利用这三类方式关注有关公众事务的报道。