Building Frames Link by Link: The Linking Practices of Blogs and News Sites

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This study uses content analysis and in-depth interviews to examine the use and conceptions of hyperlinks among news websites, independent bloggers, and blogging journalists, particularly the way that they contribute to episodic, thematic, and conflict news frames. The news sites' links function thematically to provide context through background information produced by a limited body of traditional, non-opinionated sources, placing news events in a thematic frame. Bloggers' links, however, serve as a more social connection, while also pointing toward immediate, specific news issues, placing events in an episodic frame. Blogging journalists are found to be situated between the two groups, appropriating some practices from each.

Introduction

The hyperlink is one of the primary vehicles of the Internet's unprecedented ability to connect people with ideas and information. Links are, in some ways, the infrastructure of the Internet; they are fundamental to its utility and vitality, yet they are so ubiquitous that they often blend, unnoticed, into the background. Depending on their contexts, links can influence patterns of use across the Internet (Tremayne, 2005) and express social relationships in public space (Adamic, 2008). These links can wield immense power to define the parameters of an online text and the Web itself, allowing communicators to "nominate what ideas and actors should be heard and with what priority" (Turow, 2008, p. 4).

But precisely what meanings these links carry when they are employed by journalists, bloggers, and others on the Web remains largely undefined. Previous research has primarily examined the destinations of links to determine their meaning, but the grammar of the link is also formed by the text in which it is embedded, in concert with the text to which it links. This study examines links within that context to better determine the meanings links carry, in addition to looking at whom they are directed

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toward. Specifically, this study aims to illuminate some of those meanings by comparing the contexts in which they are used by journalists, bloggers, and hybrids between the two. In doing so, it connects links with the concept of framing, exploring ties between linking practices and particular news frames.

Hyperlinks and Journalism

Hyperlinks predate the Internet, having been conceptualized during the 1960s as a means of jumping from document to document via connections made through lines of text (Turow, 2008). They now form the foundation for many of our activities online, from using search engines to reading the news or discovering new sites. Additionally, links have been shown to perform a variety of sociocultural functions and carry a wide range of meanings. Depending on their contexts, links can direct attention (Tsui, 2008), attribute information (Walejko & Ksiazek, 2010), provide interactivity (Peng, Tham, & Xiaoming, 1999), and allow for personalized texts (Deuze, 1999).

Links can also play some vital roles in enhancing the effectiveness of journalism online; in fact, they make up one of the distinctive characteristics that define the structure of the online textual space, as opposed to the traditional channels of print and broadcast media (McAdams & Berger, 2001; Steensen, 2011). When used to their potential, links allow journalists to provide context without using space, and to make room for alternative voices (Tremayne, 2005), as well as to enable readers to trace the journalist's newsgathering process by examining source material for themselves (Deuze, 1999). This transparency supports the news' veracity by specifying to the audience the relationship between what journalists know and how they know it (Tsui, 2008).

Links share many of the same characteristics as journalists' traditional news sources (Walejko & Ksiazek, 2010), though they may create potential for increased diversity among those sources by making it easier to point to more of them (De Maeyer, 2012). But links' journalistic functions go beyond simply citing sources; a link establishes a direct connection between readers and sources, allowing readers a degree of personalization in the information-seeking process, something that is unavailable through traditional source citation (Dimitrova, Connolly-Ahern, Williams, Kaid, & Reid, 2003; Peng et al., 1999). Links erase a degree of separation that simply referring to sources cannot, bringing readers into contact with the sources themselves where they were previously required to trust the journalist as an intermediary.

Yet, while we are developing a growing understanding of what links can do, we know relatively little about how Web users, and particularly journalists, are actually using links. Many studies examining linking in the news and blogging have looked at two simple factors: how often sites link, and to whom they link (Napoli, 2008). Still, several significant findings have arisen from these studies: Chang, Himelboim, and Dong (2009) found that the flow of information through outbound links between countries is mostly closed, and numerous other studies have found that political blogs link predominantly to mainstream media outlets and other blogs with a similar political point of view (Leccese, 2009; Reese, Rutigliano, Hyun, & Jeong, 2007; Tsui, 2008). In particular, Leccese (2009) likened political blogs to a newspaper composed only of opinion columnists, finding that most of their links point to secondary sources and mainstream media outlets.

The findings regarding linking and journalism have been resounding in their consistency: Mainstream news websites have repeatedly been found to include very few external links (Dimitrova et al., 2003; Peng et al., 1999; Reese et al., 2007; Steensen, 2011; Tremayne, 2005). The pattern has been shown over time, particularly by Barnhurst (2002, 2010), who found in two samples four years apart that links to other sites continued to be rare at newspaper websites, and by Tremayne (2006), who found similar results over six years. When they do link, mainstream media sites and blogging journalists tend to link to established information sources, using new technology to sustain old power structures (Himelboim, 2010; Singer, 2005). Chang, Southwell, Lee, and Hong (2011) have extended these findings by looking into the factors behind journalists' linking decisions, finding that financial considerations play a significant negative role, while professional information-providing norms influence linking positively.

While these studies have uncovered the edges of a picture of linking practices surrounding the news online, what is missing from this portrait is an understanding of what those links mean, as well as how that meaning shapes and is shaped by the texts in which they appear. This study examines those meanings in the context of the practices of traditional news sites and blogs, which are, collectively, an especially rich site for the negotiation of online norms and practices (Robinson, 2006; Singer, 2005). Singer found that bloggers at mainstream news organizations, whom she called j-bloggers, normalized the blog as an extension of traditional journalistic values. She argued that, while j-bloggers took advantage of links to strengthen their transparency, their links to other elite media sources created "a sort of online echo chamber of mass-mediated political views" (2005, p. 192). These j-bloggers operated within a framework of traditional journalistic norms and practices transmitted through their news organizations and professional affiliations, in contrast to independent political bloggers, who were unaffiliated with those journalistic institutions and re-interpreted traditional journalistic values (Wall, 2005).

In the first of its three research questions, this study examines the types of information sources that links are pointing to, looking for similarities and differences in a comparison between traditional news sites, independent blogs, and the blogs of traditional news sites. This builds on previous research that has largely examined each of those groups by themselves. Its second research question builds on those basic findings to examine those groups' own conceptions of the meanings and function of links within online journalism.

RQ1: How are different types of bloggers and news sites similar to and different from each other in the types of sources to which they link?

RQ2: How do different types of bloggers and journalists conceive of the primary functions of links?

Hyperlinks and Framing

One fruitful way to approach these issues is through framing theory, which posits that communicators shape public perception of issues by framing them in certain ways. To frame a message, as Entman describes it, is to "select some aspects of a perceived reality and make them more salient in a communicating text" (1993, p. 52), whether through repetition, association with culturally familiar

symbols, language cues, or other devices. Numerous studies have demonstrated an effect of news frames on audience perception and understanding of issues (e.g., Gross, 2008; Iyengar, 1991; Valkenburg, Semetko, & De Vreese, 1999), though frames can be present without an established influence on audience cognition (Entman, 1993). As Scheufele (1999) has noted, research on framing has encompassed both media frames (the framing devices within a communicative text) and individual frames (the cognitive schemas through which audiences organize and process issues). Each of these types of frames has also been studied as both a dependent and independent variable, creating a fourfold typology for framing research. This study examines media frames as a dependent variable, a framework that focuses on what factors create frames in mediated communication, according to Scheufele.

The link is a natural factor contributing to a media frame; it allows a writer to impose a hierarchy on information and "hides or buries certain components that the writer deems less vital" (McAdams & Berger, 2001), two functions that are virtually synonymous with the framing act (Entman, 1993). Additionally, researchers have argued that the hyperlink helps to expand the narrow news frame of traditional media by "enabling the news consumer to see a story from multiple perspectives or points of view" (Pavlik, 2001, p. 317) and by helping to create a non-linear, reader-directed frame (Robinson, 2006). Put negatively, links can also help to determine the boundaries of discourse for public issues in much the same way that Reese, Grant, and Danielian (1994) found television news sources to act. This framing function of links has been referred to as "filtering" information (Luzón, 2009); a subset of blogs that rely heavily on links to select and sort information in order to define (usually political) conversation have been referred to as "filter" blogs (Herring, Scheidt, Wright, & Bonus, 2005). Yet, few formal connections have been made between this function of links and the concept of framing. Links have been analyzed as one component of a larger framing study (Bichard, 2006), and their framing power was mentioned in passing in a blogging study (Tremayne, 2004), but no framing studies have focused predominantly on links as a framing device.

The framing power of links has some evident limits: Its functions are predominantly limited to the ambiguous, format-oriented realm of frames, rather than the more substantive framing realm (Williams & Kaid, 2006). Thus, links are likely to act as secondary contributors to a frame predominantly established by the textual or visual content of a mediated message. Still, links have an important framing role to play by helping to determine the bounds of a message's intended universe. Even if a link is directed toward a source that opposes the linking message, the link is defining that source as part of the text's preferred reading, and it can also serve to implicitly reinforce other, non-linked sources as being outside of that preferred realm.

In particular, links have the potential to play a critical role in creating three types of frames that will be examined in this study: episodic and thematic frames, as well as conflict frames. Episodic and thematic frames are two contrasting forms that depict public issues as either specific, discrete events (in episodic frames) or, in thematic frames, as part of larger, more complex issues (Iyengar, 1991). Conflict frames emphasize conflict between individuals or groups as a means of gaining audience attention (Semetko & Valkenburg, 2000). Episodic frames are less likely to hold public officials responsible for events by shifting attribution to the individual (Iyengar, 1991), and they exercise their persuasive power particularly through emotional channels (Aarøe, 2011; Gross, 2008). Conflict frames, meanwhile, reduce

substantive political discussion to simplistic discourse that inhibits understanding and breeds cynicism (Semetko & Valkenburg, 2000).

Links have the power to substantially contribute to these frames; while much of the media's coverage is in the episodic frame (Iyengar & Simon, 1993; Semetko & Valkenburg, 2000), the link can contribute to thematic frames by allowing journalists to "connect stories to broader themes, issues, or events outside a single episodic frame" (Pavlik, 2001, p. 316). But links can also contribute to conflict frames when their purpose is to show how contemptible competing views are (Sunstein, 2007). Through an examination of RQ3, this study builds our understanding of the degree to which links contribute to these frames, as well as the ways in which they do so.

RQ3: What is the relationship between types of bloggers and the use of links to contribute to specific news frames?

Methods

An understanding of both online news content and the producers' processes of creating it are necessary to answer these questions thoroughly. To that end, a content analysis was conducted, supplemented by in-depth interviews with the journalists and bloggers whose content was studied. The content analysis focused on three major American political stories of 2010: the *Deepwater Horizon* oil spill in the Gulf of Mexico; the controversy surrounding a proposed Islamic center to be built near the September 11 site in Manhattan; and the 2010 midterm elections. The three stories were chosen to enhance the study's reliability, as they vary in subject areas, degrees of conflict, ² and thematic issues.

For the content analysis, the link was used as the primary unit of analysis. To gather those links, a sample of U.S.-based independent blogs, j-blogs, and news sites was drawn, with six sources in each category selected based on their size, popularity, and influence, as measured by Web traffic and inbound links. For this sample, j-blogs, or blogs published by mainstream journalism publications (Robinson, 2006), were chosen based on their influence (measured by inbound links on the blog link-tracker Technorati³), as well as their affiliation with prominent national news organizations in various media and whether or not they devoted substantial coverage to each of the three issues studied. The j-blogs chosen were the CNN Political Ticker, The Political Punch at ABC News, The Washington Wire at *The Wall Street Journal, TIME* magazine's Swampland, The Caucus at *The New York Times*, and The Plum Line at *The Washington Post*.

² While conflict certainly existed in the Gulf oil spill—as it does in virtually every major news story—the oil spill did not carry the level of inherent conflict borne by elections, which are built on competition between conflicting political candidates. By comparison, public sentiment was relatively unified in its anger at BP and concern over the dangers of the oil spill.

³ Technorati calculates blogs' authority by tracking the number and type of sites that link to them. It calculates links within posts, but not within general blogrolls (Technorati, n.d.).

The sample of news sites is based on two primary factors: their affiliation with the six j-blogs chosen for the study, and their influence within the American media landscape. All six sites are among the most-trafficked news sites of their kind on the Web ("Online," 2011), and all six correspond with the six j-blogs that make up the study. Sites made up primarily of non-staff-written content were excluded, leaving the following sample of news sites: *The New York Times*, *The Washington Post*, *The Wall Street Journal*, CNN, ABC News, and *TIME* magazine.

The independent political blogs, defined as blogs that are independent from traditional media outlets and cover general news and politics, were also chosen based on influence measured via Technorati (Messner & DiStaso, 2008; Reese et al., 2007), as well as traffic statistics and whether they covered each of this study's topics. The sample was intended to be representative of the most influential political blogs, sometimes called "A-list" blogs (e.g., Trammell & Keshelashvili, 2005), rather than the thousands of blogs in the political blogosphere as a whole. Sites that do not publish in reverse chronological order, such as The Huffington Post, were not defined as blogs (Tremayne, 2007) and thus were not included in the sample. Blogs that met each of the following criteria as of December 2010 were chosen: Presence on Technorati's list of the top 100 U.S. political blogs, at least 100,000 unique monthly U.S. visitors according to either of the Web traffic counters Quantcast or Compete, and at least five posts about each of the three topics of the study. Thirteen blogs met those criteria. After eliminating two blogs for duplicating content, eleven blogs remained, of which six were chosen at random: Americablog, Crooks & Liars, Doug Ross @ Journal, Hot Air, Michelle Malkin, and TPMMuckraker. There was no attempt to sample for ideology, though the sample selected turned out to contain three liberal blogs and three conservative blogs.

For each topic, five posts or articles were selected at random from a list of all of the source's posts or articles on the topic; with 18 sources, this yielded a sample of 270 posts and articles, from which 956 links were coded. The pool from which the sample was drawn, which totaled 6,474 posts, was generated by exhaustive searches of each blog and news site's archives, with some news site searches aided by keyword- and date-based Google News searches in cases where site archives were incomplete.⁴ For the oil spill, the sample time frame ran from the day of the spill (April 20, 2010) to the day the well was capped (July 15, 2010). For the Islamic center, the time frame ran July-October 2010, and for the midterms, it ran October 2-November 2, 2010—election day.

The news sites and blogs were coded into three types—news sites, j-blogs, and independent blogs⁵—and the general link practices in RQ1 were coded according to the number of links and concentration of links, internal and external links, links to mainstream media sites, and whether the source is named in the text. They were also coded according to a categorization of links developed by the

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⁴ Within news sites, non-staff-generated content, such as wire articles and letters to the editor, were excluded.

⁵ Some of the blogs in this sample pool have taken on bureaucratic qualities of traditional news organizations, making it difficult to conceptualize a bright line between independent blogs and those at mainstream news organizations. The distinction here is based on whether the blog is part of an organization based in traditional media forms, or part of an organization that grew out of the blog itself (such as TPMMuckraker).

author based on the sources to which links pointed: links to fact-based (news articles), opinion (blog posts and opinion pieces), reference (business, education, and government sites, search results, and topic pages), and multimedia sites (photos, video, and audio). Bloggers' and journalists' conceptions of links in RQ2 were measured through in-depth interviews, which will be explained below. The news frames in RQ3 (particularly episodic, thematic, and conflict frames) were coded in the content analysis through political orientation of site linked to, type of site linked to, specificity of page linked to, age of page linked to, and how the article or post referred to the site linked to.

Links were coded if they were both text-based and part of the article or post. Thus, embedded media, sidebar links, automatically generated "related posts" links or tags, and links attached to the author's byline were not coded.⁶ To calculate inter-coder reliability, the author and three colleagues coded 15% of the research sample, selected at random, with two coders analyzing each item. The ratio of total coding agreements to total number of coding decisions produced a reliability of .96, easily exceeding the minimum acceptable level of .80 (Riffe, Lacy, & Fico, 2005). Additionally, Krippendorff's alpha was used to calculate inter-coder reliability while controlling for chance agreement. In these measurements, too, each variable used in the study exceeded .80, with the exception of how the article or post referred to the site linked to, which measured .75.⁷

To augment the information gathered through content analysis and answer RQ2 about conceptions of the functions of links, interviews were conducted with news site editors, j-bloggers, and independent bloggers. Interviews were requested with 18 people—one associated with each source included in the study. For blogs with more than one author, either the lead author or editor was chosen, or one of multiple equal-ranking authors was selected at random. For news organizations, the person chosen was the highest-ranking staff member whose primary job responsibility was the organization's digital operation. Each person was sent an email request, along with follow-up requests from the author and the director of the author's academic department. Seven of the 18 individuals with whom interviews were requested agreed to participate in the study. All agreed to speak on the record, with the exception of one journalist and blogger for a mainstream news organization, who spoke anonymously.

The interviews, conducted in early 2011, were semi-structured, with a predetermined list of questions that were asked of every participant, but with space built into the interview structures for follow-up questions. Each interview covered perceptions of links, linking practices and processes, and influences on linking. Interviewees were asked questions about the situations in which they link, sites they prefer to link to, the purposes served by links, and whether they considered links to be endorsements or

⁶ Excluding these links allowed the study to isolate links directly related to the posts being studied, rather than standing features of the site (Tremayne, 2005). Counting "sidebar links" can dramatically affect the results of linking studies with data that are not necessarily pertinent to the story being studied (Anderson, 2010).

⁷ As evidenced by its relatively low reliability rate, textual references to links proved somewhat difficult to code. Such references can be subtle and subjective, and prior knowledge of the subject can be helpful in evaluating them. They are included in these results as an exploratory guide to shed light on the discourse surrounding the links themselves.

source citations. Interviews ranged from 20–45 minutes in length. Interview transcripts were analyzed thematically (Braun & Clarke, 2006), with content tagged and examined based on particular perceptions of and uses for links, then compared across interviews with other similarly themed discourse. Because there were too few interviews to make broader generalizations, they were analyzed as a supplemental form of data to the study's content analysis.

Results General Linking Practices

In the linking practices and similarities and differences studied in RQ1, the news sites and blogs studied—both mainstream and independent blogs—were somewhat similar in their number of links, but telling differences emerged in the types of objects of those links. As Table 1 indicates, news sites had the highest percentage of posts with six or more links (22%), though they were also most likely to have no links at all (36%). J-blogs, meanwhile, were more than three times as likely as their independent counterparts to have no links (30% to 8%, p < .001).

Table 1. General Linking Practices Among Blogs and News Sites.

	News Sites	J-blogs	Independent blogs		
Number of links (% of stories)					
None	36	30	8		
1-2	15	34	33		
3-5	27	21	38		
6 or more	22	15	21		
χ^2 =29.973, p < .001, Cramer's V=.236, p < .001, n=270					
	Internal/external li				
Internal	91	54	18		
External	9	46	82		
χ^2 =361.106, p < .001, Cramer's V=.615, p < .001, n=956					
	Mainstream media links				
Mainstream media	93	77	33		
Non-mainstream media	3	16	56		
Non-media	4	7	11		
χ^2 =308.057, p < .001, Crame					

	Type of information in site linked to		
Fact-based	30	47	35
Opinion-based Reference	5 52	15 36	46 16
Multimedia	13	2	3

 χ^2 =237.170, p < .001, Cramer's V=.361, p < .001, n=912

But linking practices began to diverge much more sharply when the direction of those links was measured. First and most simply, news sites were much more likely than independent blogs to link both internally and to mainstream media sites generally, a finding that matches those of previous studies (e.g., Barnhurst, 2002, 2010; Dimitrova et al., 2003; Tremayne, 2005). Just more than 90% of all non-blog news site links were directed within the news site itself, compared with only 18% of internal links at independent blogs (Cramer's V = .615, p < .001). (In some cases, internal links included separately branded sites under the news organization's umbrella, such as *The Washington Post*'s Who Runs Gov political topic site.) Likewise, 93% of news sites' links went to mainstream media sites, while only a third (33%) of independent bloggers' went to those sites. Many of the news sites' links to mainstream media sources were internal, though even when only external links were considered, they still linked to far fewer media sources outside the mainstream than the independent bloggers did—just 29% of external links, compared with 46% of independent bloggers' external links (Cramer's V = .179, p < .001) Bloggers within news organizations landed squarely between the two groups, with just more than half of their links (54%) directed internally, and 77% of their links going to mainstream media sources.

Not only did each group show different breadths of linking sources in concert with previous research, but the sources of their links also suggested that, for each group, links were tied to a different type of information—a more fundamental distinction in meaning than has been indicated previously. Independent bloggers were the most likely to link to opinion-based sites, with 46% of their links going there—largely to sites run by other bloggers—compared with 15% of j-bloggers' links and just 5% of news sites' links (Cramer's V = .361, p < .001). J-bloggers, on the other hand, directed nearly half of their links (47%) to more fact-based sources, more than either independent bloggers (35%) or news sites (30%). News sites' non-blog posts were most likely to send links to a third category: reference sources, including both topic pages and government, business, and education sites. Just more than half (52%) of their links went to those sources, compared with 36% of j-bloggers' links and 16% of independent bloggers' links. Many of the news sites' reference sources were links to topic pages, which accounted for 31% of the total links by news sites' non-blog items.⁸ This distinction between links as a connection to fact-based news accounts, expressions of opinion, and general reference sources suggests differing perceptions among the three groups of the purposes of links, a phenomenon explored further in the interviews to answer RQ2.

⁸ Editors from *The New York Times* and *The Washington Post* said in interviews that their topic-page links are primarily automatically generated. They added that their news organizations had been making efforts in recent months to rely less on such links.

Bloggers' and Journalists' Conceptions of Links

All of the participants interviewed, including news website editors, j-bloggers, and independent bloggers, described multiple purposes and intended practices for links, the overlaps and divergences of which can help to illuminate RQ2 ("How do different types of bloggers and journalists conceive of the primary functions of links?"). The interview data will allow examination of several major articulated concepts of links, beginning with similarities and then moving to differences between types of bloggers and journalists.

One function of links articulated by most respondents (five of the seven) was their ability to provide credibility to the linker by giving readers a transparent means of determining for themselves the basis for the author's claims. Though this purpose was expressed across the three types of respondents, it was emphasized most strongly by the four (both j- and independent) bloggers, who saw their own credibility as being on the line based on the sources they chose to link to. For the independent bloggers, the desire for credibility at times led them to link to traditional media sources even over other political blogs like themselves. Ed Morrissey, who writes for the conservative independent blog Hot Air, explained that the credibility of sources plays a primary role in his decisions about which sources to link to, because he sees their credibility as being closely tied to his own, saying:

When you're pulling your data and you're linking back to it, you're doing so with the thought that whatever conclusions I draw from that are going to be based on whether or not that data was reliable and where it came from.⁹

Because of that principle, Morrissey said he would choose, for example, to link to a traditional wire service over an unreliable blog for the same information, because the wire service's track record of credibility would help lead his readers to put more faith in his own assertions.

The credibility-aiding purpose for links was the most significant commonality between journalists' and independent bloggers' conceptions of links' purposes. Like the independent bloggers, Michael Crowley, a blogger at *TIME*'s Swampland, described links as a form of evidence meant to build readers' trust in his assertions over time; after seeing his points backed up by facts and evidence through the links he provides, readers would begin to trust his judgment and the links that backed it up. "I try to anticipate whether a reader is going to say, 'What is the basis for that?' And sometimes a hyperlink is the quickest way to do it rather than do it through text in my own voice," Crowley said.

A second commonly expressed function of links was more social in nature; it typically took the form of an acknowledgment that the Web is built on links between people, and to properly participate in it is to make connections to others through generous linking. Though this sentiment was also nearly universal to the interview participants, it manifested itself in tellingly different ways among the independent bloggers and blogging journalists. Bloggers expressed the principle in more collegial terms, particularly independent bloggers, who expressed a sort of comradeship with fellow bloggers who shared

⁹ All quotations from journalists and bloggers are taken from personal interviews with the author.

their political views. Those bloggers were the only ones who named a "hat-tip" as an elemental link type. Morrissey described the desire to help other bloggers through a "hat-tip" link as "the old blogger paradigm—you know, you want to keep promoting everybody else because you want the whole blogosphere to grow bigger and stronger." Bloggers within news organizations articulated a milder version of this idea, saying they prefer to link to reporters they know and enjoy promoting stories they find interesting.

At news organizations, this concept took on a more self-oriented quality, with an emphasis on what benefits, both financial and professional, the organization could gain out of the link's relational nature. This idea is illustrated aptly in a statement by Katharine Zaleski, *The Washington Post's* then-executive producer and head of digital products (she has since left the paper), connecting the networked nature of the Web with her own site's success: "We live in a linked economy, so the more you link out to other people, it's a symbiotic relationship. Other sites are also going to link back to us." For all groups, the social theme also took a common-sense form, with linking being described as "just good etiquette" or "common courtesy," and using someone else's idea without linking described as "stealing."

One concept of the link that was emphasized primarily by journalists was that of the link as vehicle for context. News site editors in particular articulated this notion, that the link is a tool to give readers background and reference information about news issues. *New York Times* associate editor Jim Schachter, for example, said the primary purpose of links is to give context to the reader, "to help people connect the dots, go deeper into the subject."

The journalists who blogged within news organizations voiced a more practically oriented variant of this function. They described the link as a way to extend reporting and explanatory power within tight time and space restrictions. These reporters found links a particularly apt fit for situations in which they were writing short blog posts but needed to make reference to a complicated concept. In such uses, they said, links were able stand in for longer explications of background information, giving readers the option to explore it on their own instead. One journalist and blogger at a mainstream news organization called it "embedding sources" in his writing, saying that his organization

has very hard word counts, so it becomes difficult to write as much as you want to say. The link kind of lets you provide readers with information that you wouldn't have the space or maybe even the time to get at in the article itself.

Finally, it is worth noting that those within news organizations overwhelmingly expressed philosophies of openness regarding the sources of their links. They placed very few restrictions on what types of sources they would link to, and they were emphatic about their willingness to link both outside of their news organizations, and outside of traditional media sources. As we have seen and will examine further, however, these linking philosophies have yet to be borne out in the actual linking practices of mainstream news organizations, particularly outside of their blogging content.

Framing Dimensions of Links

Results from the statistical measures of RQ3 (which examines the relationship between types of blogs and news sites and the use of links to contribute to news frames) were consistent with the characterization of links given in interviews, pointing toward a more context- and reference-driven meaning of links for news sites. Table 2 summarizes results for the two types of news frames: episodic/thematic (specific events versus larger themes) and conflict. Regarding the age of links, in which undated or older links would indicate more a more thematic approach, while newer links would indicate an episodic one, news sites' non-blog items were nearly twice as likely to link to undated sources (62%) as the blog posts within their news organizations (32%), and more than four times as likely as independent blog posts (15%) (Cramer's V = .334, p < .001). Independent bloggers and bloggers within news organizations linked to similar percentages of new—one week old or newer—posts (59% and 58%, respectively), while just 17% of news sites' links were to new posts. Fewer than one out of ten links by independent bloggers (9%) went to general pages, such as homepages and topic pages, with most links going instead to specific posts and articles. This was a far smaller number than the general links from j-blogs and news sites (30% and 43%, respectively; Cramer's V = .325, p < .001).

Conflict frames were examined by determining whether links endorsed or criticized their sources, as well as by the political ideology of their sources. The textual reference is a particularly important measurement in this framing analysis, as it analyzes the language in and surrounding the link itself, revealing ways in which the source of the link and the text used to describe it work together to frame the content and context of the link. This measure, too, revealed significant differences among the three groups. Of the links by independent bloggers, 20% were accompanied by an endorsement of the source of the link, about three times as many as those links endorsed by the j-bloggers (6%) (Cramer's V = .243, p < .001). Both types of bloggers were less likely to criticize the source of their links, though again, independent bloggers were more than twice as likely to do so (7%) as their counterparts at traditional news organizations were (3%). Strikingly, not one of the 315 links coded for non-blog news site items were either endorsed or criticized in the text of the linking post.

¹⁰ Though some of the news site topic pages that were linked to had "last updated" dates, these were coded as undated, as the pages are regularly updated.

Table 2. Linking as Framing Devices among Blogs and News Sites, in % of Links.

	News sites	J-blogs	Independent blogs			
	Episodic/Thematic Frames					
	Age of links					
One week or less	17	58	59			
Eight days or more	21	10	26			
Undated/could not determine	62	32	15			
χ^2 =211.460, p < .001, Cramer's V=.334, p		32	13			
General/specific links						
General page	43	30	9			
Specific page	57	70	91			
χ^2 =100.792, p < .001, Cramer's V=.325, p		70	J1			
χ =100.732, β < 1001, Gramer 3 V =1323, β	1.001, 11–330					
	Conflict Frames					
	Textual reference to links					
Endorses	0	6	20			
Criticizes	0	3	7			
Neutral	100	91	73			
χ^2 =112.873, p < .001, Cramer's V=.243, p < .001, n=954						
	Political orientation of source linked to					
Neutral	96	80	41			
Conservative	3	8	28			
Liberal	1	12	31			
χ^2 =263.680, p < .001, Cramer's V=.377, p	< .001, n=926					
	Political relationship between site and link source					
Same	96	72	51			
Different	4	25	41			
Opposite (non-neutral)	0	3	8			
$\chi^2 = 164.152$, $p < .001$, Cramer's $V = .298$, $p < .001$, $n = 926$						

News sites were the least likely to link to conservative or liberal sources, with fewer than 1 in 20 links going to any type of non-neutral source (Cramer's $V=.377,\,p<.001$). The bloggers within those news organizations were somewhat more likely to link to politically oriented sources, with one-fifth of their links going toward conservative or liberal sites or posts. While the overwhelming majority of both news

sites' and j-bloggers' links went, instead, to neutral sites, independent bloggers directed more than half of their links (59%) to either conservative or liberal sources.

And while news sites overwhelmingly linked to politically neutral sites (such as their own), j-bloggers and especially independent bloggers were less likely to do so. J-bloggers linked to those with a different political orientation a little more than a quarter of the time, and independent bloggers did so about half the time. To distinguish between bloggers' links to predominantly neutral mainstream media sites and their links to sites on the opposite end of the political spectrum, a new category of links was created for those that went to sites that were "opposite" of the originating site's own views (i.e., conservative links to liberals, and vice versa). When those links were separated out, 8% of independent bloggers' links went to those with opposite political orientations, while the remainder went to neutral sites (41%) and sites that shared their political viewpoints (51%; Cramer's V = .298, p < .001).

In summary, news sites' links were more likely to be directed toward sources that were within mainstream media (often internal), politically neutral, undated, and reference-based. Independent blogs, on the other hand, directed more of their links externally and toward sources that were outside the mainstream media, politically oriented, new, specific, and opinion-based. In almost every area, j-bloggers fell in between the two groups, though they linked to more fact-based sources than either of the other two. Likewise, in interviews, journalists were more likely than independent bloggers to emphasize the link as a vehicle for context. In terms of framing, independent bloggers tended to use links to present their content within episodic, conflict-oriented frames, while for news sites, links were presented in non-conflictual terms and used to place news into thematic frames.

Discussion

As these results help to illustrate, links are no longer viewed with suspicion by those responsible for many traditional news organizations' Web content. Rather, they are understood to be one of the defining features of the Web's distinctiveness as a communication medium. Journalists and news site editors expressed virtually unqualified enthusiasm for hyperlinks, and the content data indicates that they are moving toward using links at a rate that corresponds with that eagerness. This is quite a different attitude from the ones media members tended to hold toward links in the Web's earlier days, when researchers found concerns that links might take readers away from their sites or open their news organizations up to responsibility for inaccurate or biased content elsewhere (Dimitrova et al., 2003; Steensen, 2011). While Chang et al. (2011) found that journalists' financial concerns discouraged both internal and external linking, the results of this study suggest that a financially and professionally driven fear of linking is being replaced by an embrace of linking for many of the same reasons. Rather than being viewed as a financial liability, links are now seen by independent bloggers, journalists, and news editors alike as a valuable tool to establish credibility by demonstrating the basis of a writer's assertions, as well as an important way to make the reporting and writing process more transparent—an idea that is closely related to Tsui's (2008) assertion that links support a text's facticity by specifying how writers know what they know. Financial considerations appear to be a secondary motivation behind journalists' linking practices, influencing links positively when they do come into play.

But while traditional news organizations have begun to embrace links, the logic with which they employ those links carries a significantly different set of meanings from the linking practices of the top independent political bloggers. In essence, the two groups are linking in different languages. Inside news organizations, a link is predominantly a tool for providing context, a largely internally directed reference for curious readers hoping to delve deeper into an issue in the news. It points primarily to undated sources and general pages, reaching outside of the day-to-day developments of a news story toward a general, static body of knowledge from which to draw a fuller sense of the environment in which the story is occurring. It is in this sense that links contribute to a thematic frame for news organizations, both functioning as a device that "places public issues in some more general or abstract context" (Iyengar, 1991, p. 14) and tying individual news events to established issues and structures.

But the logic of this linking practice also circumscribes the frame of the news story, just as it contextualizes it. The body of knowledge to which a news organization's links point is, by and large, accumulated by that news organization itself and others like it. This is consistent with previous findings that news organizations primarily link internally (Barnhurst, 2010; Steensen, 2011; Tremayne, 2005), and this practice also locates the nexus of online authority largely within the same institutions that constitute it offline. Opinionated voices and partisan sources have little place in this body; it is a space dominated by supposedly dispassionate, factual information provided by established, authoritative, and largely professional media sources. Far from helping to form a conflict frame, the realm of news organizations' links is almost anti-conflict, devoid of nearly all of the perspectival distinctiveness and boldness that characterizes the Web's discourse, but that might be perceived as a threat to the norm of journalistic objectivity.

For political bloggers, on the other hand, the link takes on a set of meanings that is more social and oriented around the immediate. Independent bloggers tend to use links to point toward specific, newer texts, organizing information and conversation around immediate issues and granular topics within larger news issues. This linking practice contributes to an episodic frame, as it "depicts public issues in terms of concrete instances" (Iyengar, 1991, p. 14). This logic may be partly a response to bloggers' perceptions of their audience as politically interested and conversant with the general parameters of a particular news story. Additionally, endorsement plays a significant role in bloggers' linking practices, functioning as a means of thanking a source, aiding a like-minded writer, or more generally, contributing to the health of the blogosphere as a whole. Despite this social camaraderie embedded in bloggers' linking values, they are also much more inclined than traditional journalists to use links to frame their discourse in conflictual ways. Bloggers combine links to politically strident sources with language that either defends or mocks those sources' values to frame readers' understanding of issues as a debate or struggle against political and rhetorical adversaries.

It is difficult to precisely place blogging journalists at traditional news organizations within this spectrum of linking practices. Like their news organizations, they tend to reinforce through their links a limited body of sources, sources which are largely within established media institutions and without an expressed political perspective. Yet, like their independent blogging counterparts, their links contribute to a more immediate context and episodic frame, pointing to more recent, specific posts and going beyond the link as a reference to a static body of material. This negotiation between competing conceptions of

links may be evolving into an ever-more complex process as the boundaries between news organizations, independent bloggers, and j-bloggers become more porous. For example, Talking Points Memo, the parent of one of the independent blogs in this sample, has a Washington bureau staffed with reporters, while one of this study's blogging journalists, Greg Sargent of *The Washington Post*, came to *The Post* from Talking Points Memo. The reporters and editors who are creating these texts are increasingly shaped by a collision of the worlds of traditional journalism and the blogosphere, one that could have multifaceted implications on their linking patterns.

By outlining some of the meanings that hyperlinks carry, as well as some of the news frames they contribute to among various informational contexts, this study gives us a clearer picture of not just where links are being directed—as past empirical studies have told us—but also of how they are functioning. Specifically, it uses the data from content analysis to give a fuller idea of both what is being linked to and how it is being done, supplementing it with information from interviews to gain perspective on why links are used in those ways, and on how they are perceived by the people who use them. While Chang et al. (2011) achieve some of this insight through their survey of journalists regarding linking, this study extends such work by connecting journalists' and bloggers' perceptions of linking with their actual linking practices, revealing illuminating inconsistencies between the two. This study also connects hyperlinks with framing, exploring the potential power of links to contribute to news frames by defining the parameters of relevant information.

This study also has limitations and, with them, possible directions for future research. Chief among them is the need for a more sociologically oriented understanding of the influences behind the linking practices of news organizations and bloggers, addressing the questions of why the two groups are linking differently, and of how j-bloggers are negotiating the tension between conflicting linking philosophies. The content analysis and relatively small number of interviews used in this study are limited in their ability to address such questions, though they do suggest that some of the differences in linking practices could stem from the varied bureaucratic settings of each blog or site. Such issues could be addressed more appropriately through a "thicker" qualitative approach than the content analyses, as well as through surveys of past studies. Further research is also needed to explicate the relationship between hyperlinks and news frames: To what degree do links contribute to news frames, and in precisely which ways?

Neither the linking practices of news organizations nor those of the political blogosphere are an ideal for which the other should strive, but both of them could prove an essential corrective to the other. News sites' links open the door to a valuable contextual resource for curious readers, but they reinforce a strict perimeter on the realm of acceptable discourse on public issues. Conversely, political blogs' links help to foster the sociability and networked openness of the Web, but they often keep news events from being connected to larger issues. By embracing both the connectivity and the contextual potential of hyperlinks, both news organizations and blogs can contribute to a richer network of information on the Web.

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