Friends Who Choose Your News:

An analysis of content links on Facebook

Brian Baresch  
University of Texas, Austin

Lewis Knight  
University of Texas, Austin

Dustin Harp, Ph.D.  
University of Texas, Austin

Carolyn Yaschur  
University of Texas, Austin

Contact: Brian Baresch, PO Box 7054, Austin TX 78713  
512-413-4100 | bbaresch@mail.utexas.edu

For presentation at the International Symposium on Online Journalism, Austin, Texas, April 2011.
Friends Who Choose Your News: An Analysis of Content Links on Facebook

In 2008, the New York Times (Stelter, 2008) quoted an unidentified college student as saying that he or she can stay abreast of the news without looking for it: “If the news is that important, it will find me” (para. 7). The article described a practice becoming more common, especially among young people: sharing news and links to articles among themselves and, moreover, relying on their connections to keep them informed. Stelter termed this strategy the “social filter” (para. 6) and contrasted it with the better-known “professional filter” (para. 4) that characterizes the traditional relationship of news providers to their audiences. In Clay Shirky’s formulation (Benton, 2009), “the audience is now being assembled not by the paper, but by other members of the audience” (para. 27).

The description of the less methodical, more serendipitous strategy encapsulated in the iconic quote above speaks to a new kind of news consumption strategy, a new kind of consumer, a “stumbler,” so to speak, who gets nearly all his or her news through incidental or socially selected exposure. A primary vehicle for exposure to news is the social network site Facebook, which claimed 500 million users as of 2010 (Facebook 2010).

The shift to “stumbling” has implications for researchers in various fields. An overall shift in affinity groups from institutions to informal social networks (Bennett & Iyengar, 2008) creates challenges for theorists in sociology, media effects, and agenda-
setting research. The lesser reliance on “legacy” media institutions, in particular, creates questions of institutional authority for sociological researchers, and the distributed nature of the audience and the variety of pathways from producer to reader/viewer/listener/user creates significant challenges for media effects researchers. Researchers have to pay close attention to emergent news-consumption strategies made possible by new communication technologies. And of course the question of whether and how the citizenry is staying informed is a perennial for democracies.

This exploratory study examines the links to outside content that Facebook users post on their pages. It expands the literature about social networking sites to include external information Facebook users share, as opposed to content (status updates, photos) users generate within Facebook itself. Knowing what links are posted on Facebook can give an impression of what other sites Facebook users are looking at and the type of content they deem important, which in turn illuminates the spread of news articles and memes at this end of the online news system.

The shifting media landscape

Certainly news consumption is shifting from a few dominant sources to a more varied diet. In a recent Pew Center study (Purcell, Rainie, Mitchell, Rosenstiel, & Olmstead, 2010), 99% of respondents said that on a typical day they get news from at least one platform: a print newspaper, a television news broadcast, radio, or the Internet. The upheaval comes in the details: Ninety-two percent said they typically get
their news from more than one platform. Six in ten respondents combine online and offline sources, and nearly two-thirds (65%) don’t have a favorite news website.

Yesterday’s news-absorbing routines are pretty much gone. Where once we read the newspaper at the breakfast table and watched the evening news after work, and considered ourselves fully informed, now “[t]he process Americans use to get news is based on foraging and opportunism. They seem to access news when the spirit moves them or they have a chance to check up on headlines” (Purcell et al., 2010, p. 2). In December 2010, 41% of Americans cited the Internet as the place where they got “most of their news about national and international issues”; this cohort is 17% larger than a year earlier (Pew Research Center, 2011). In terms of news generally, the online news audience outnumbers that for newspapers; 46% of those surveyed said they get news online at least three times a week, and 40% said the same of newspapers.

Foraged news can be a hodgepodge, lacking the cohesion and hierarchy of a comprehensive news report produced by a team of professionals—but it also tracks the individual’s interests more closely than a newspaper or TV report does. Instead of the daily news, each person may assemble the “Daily Me” (Hapgood, 1995), information that is both specialized and idiosyncratic.

The very nature of what we call news itself appears to be in a state of transition. Now that information is essentially everywhere—anyone with an Internet connection or a smartphone can access hundreds of news and information sources online within
seconds—anyone who so chooses may “be peripherally aware of information as it flows by, grabbing it at the right moment when it is most relevant, valuable, entertaining, or insightful” (boyd, 2010, para. 2). This creates not only a potentially rich environment for the news consumer but also a challenge for established news organizations.

“Legacy” media—newspapers and magazines, TV news, and radio—have always existed in a broadcast model: We talk, you listen. This structure takes attention for granted, assuming everyone will tune in as a matter of course (boyd, 2010). Attention is the new currency: The news watcher is no longer a captive audience. News is no longer a scarce resource. To win influence, or eyeballs for advertisements, news producers (and distributors, including social-media sharers) must compete for attention (Jarvis, 2008).

Content is no longer being hocked, but links are. People throughout the network are using the attention they receive to traffic in pointers to other content, serving as content mediators. Numerous people have become experts as information networkers. (boyd, 2010, para. 12)

Purcell et al. (2010) found respondents who "rely on the people around them to tell them when there is news they need to know. Half of Americans (50%) say that describes them very well or somewhat well" (p. 40).

We might say, metonymically, that this represents a shift from an \textit{ink economy} to a \textit{link economy}. In the ink economy, one had few choices for news: One or two local
newspapers, the nightly television news, radio, newsmagazines, and (in later years) cable-television news channels. This content was broadcast without the receiver’s input, and it was difficult to share: A newspaper article could only be passed along physically, and a TV broadcast not at all, except in the late 20th century if one happened to have recorded it on a bulky (by today’s standards) videocassette.

In the link economy, on the other hand, sharing information is as easy as sending a link in an e-mail, or posting it on Twitter, or clicking “Share” on Facebook. A news consumer with accounts on Facebook and Twitter and access to news alert systems or RSS feeds can receive information constantly and pass it on easily, becoming a node in the social information network. Careful cultivation of one’s Facebook friends, Twitter follows and offline social contacts results in a sort of ambient information effect (Hermida, 2009) in which the user can direct his or her attention to news at the time it is needed or wanted.

In the past few years, membership in social network sites (SNSs) and alternative channels such as Twitter have exploded; Facebook alone grew from 100 million users in August 2008 to a claimed 350 million in December 2009 (Bunz, 2009) and then 500 million in 2010 (Facebook, 2010), and in a Pew study (Fox, Zickuhr, & Smith, 2009), 19 percent of Internet users said they use Twitter or another service to share or read personal updates. People have myriad ways to connect and communicate with one another outside traditional one-to-many media channels.
The specifics of the media environment strongly affect how people get exposed incidentally to news (Lee, 2009). With so much information in the environment, people may feel overwhelmed, so they rely on filters. In the past, large news organizations functioned as “gatekeepers” (see e.g. White, 1950) selecting news from the stream of information reaching the organizations’ reporters and editors. Now, with the free-for-all Web, citizens need to keep from becoming overwhelmed (Hermida, 2009), and they are turning to different kinds of gatekeeping.

According to interviews and recent surveys, younger voters tend to be not just consumers of news and current events but conduits as well—sending out e-mailed links and videos to friends and their social networks. And in turn, they rely on friends and online connections for news to come to them. In essence, they are replacing the professional filter—reading The Washington Post, clicking on CNN.com—with a social one (Stelter, 2008, para. 4).

In a sense, the social filter is simply a technological version of the oldest political tool: word of mouth. For young people, at least, it may have become the dominant means of news delivery (Ingram, 2008).

Evidence is mounting that social network services are becoming de facto news services. Facebook has become the leading referrer for visits to news and media sites, ahead of the aggregator Google Reader, and is fourth overall behind Google search, Yahoo and MSN (Hopkins, 2010). New plug-ins at Facebook appear from early data to
be increasing referrals to other websites, especially media sites (Calderón, 2010). The news and politics site Talking Points Memo reports that between March 2009 and March 2011 referrals from Facebook increased from a negligible number to 5.9% of all visits (Marshall, 2011). The online publishing company Lijit (2010) compared site visits from search, social media referrals and other Web links and found 19.7% came from social media; of those 44% were from Facebook.

“Likes” on Facebook and other social media platforms such as Twitter are becoming more important for businesses in and out of the news media. The e-commerce platform company ChompOn (2011) estimated that “likes” on Facebook are each worth $8 for its clients in terms of the immediate next sale.

**Incidental Exposure**

Most views of learning from the media conceptualize it as an active process in which people are motivated to find information about a subject (Tewksbury, Weaver, & Maddex, 2001, p. 534). But incidental exposure has repeatedly been found to generate learning. An early television study (Blumler & McQuail, 1969) found that “unselective viewers” of television news broadcasts—those who did watch political programs but without the intent to learn from them—were better informed and more interested in an upcoming election than indifferent non-viewers. In the digital age, one of the attractions of the Web from its early days has been serendipity—following links and finding unexpected sites and information. To distinguish between intentional and unintentional
learning online, Tewksbury et al. (2001) applied the uses and gratifications model, which posits that people use media to fulfill different goals:

“Most Internet use is goal directed, and acquiring current affairs information is rarely a primary goal. ... We may be overstating the case a bit, but the point is that for many people news seeking is not a core media habit. We believe these people may encounter news more frequently on the Web than they would offline” (Tewksbury et al., 2001, pp. 536-537).

To learn more about what and how Facebook users are sharing both news and other types of information through external links, this exploratory study examines the content of links Facebook users post on their pages. It specifically asks:

RQ1: To what extent are Facebook users using links to share information with their network of Facebook “friends”?

RQ2: What is the nature of the information (genre and topic) of the links being shared within Facebook friend networks?

RQ3: What modes of media are being deployed for displaying the information that the links are attached to?

RQ4: What are the original source types for the links?

RQ5: What is the response to the links from Facebook friends within the network?
Methods

A team of researchers conducted a content analysis of links posted by individual Facebook members who had agreed to allow the research team access to their Facebook pages. Accessing and examining Facebook users’ content proves challenging for researchers because of the privacy offered to site users. Just as the Internet has pushed researchers to rethink and creatively redesign methodological tools, the challenges for this research demanded a creative method for identifying Facebook users. The method drew from literature in selective sampling and snowball sampling.

Researchers performed two major steps in the data collection process. Step one included constructing a sample matching U.S. demographics of Facebook users (Facebook, 2010). According to iStrategyLabs (2010), of the 103 million U.S. users, 54% were female, 43% were male and 3% were unknown. Facebook (2010) reported that the largest age group of users were ages 35 to 54 (29%), followed by 18- to 24-year-olds (25.3%), 25- to 34-year-olds (24.8%), 13- to 17-year-olds (10.4%), and 55 and over (9.5%). Only 1% of the using population’s age was unknown. Researchers excluded all users under the age of 18 in order to focus only on adult users.

To approximate this population and account for race, ethnicity, geographic location, education, and socioeconomic and psychographics, the researchers devised a characterized, stratified snowball sample (Corbett, 2010; Maiya & Berger-Wolf, 2010).
with each researcher attempting to find corresponding percentages of participants from each of their Facebook friends lists.

The researchers used Facebook’s direct messaging tool to send an initial invitation on June 1, 2010 to participate in a Facebook related survey, with a follow-up request sent a week later. Included in the survey was a request for permission to “friend” the participants on Facebook, in order to analyze their links. The initial invitation was sent to 200 contacts. The snowball method propagated a total of 304 respondents for the survey. Of those respondents, 98 responded “yes” to the friending question, giving researchers permission to conduct the content analysis.

A Facebook research group page was set up and friend requests were sent to the respondents willing to participate. The 98 who participated were randomly assigned to five researchers who coded the content analysis portion of this study. Those in the age groups 18 to 24, 25 to 34, and 35 to 54 each represented 25–30% of the initial sample, while those 55 and older constituted 10%. The initial sample was evenly also divided between men and women.

A codebook that included 23 variables was created to analyze posted links to external websites, such as news sites, organizations, and YouTube. Links to internal Facebook content, such as photos or Farmville, and location services, such as Gowalla or Foursquare, were excluded.
Coders collected and coded links from participants’ Facebook profiles, working backward from noon on September 14, 2010, until either 15 links per person had been coded or noon June 1, 2010, had been reached. Intercoder reliability was tested on all 23 variables using a Web-based ICR tool ReCal. Krippendorf’s α scored 94% for overall coding reliability. Twelve variables were coded for the research questions, with Krippendorf’s α scores for V10a (92%), V10b (88%), V10c (95%), V10d (88%), V10e (89%), V10f (82%), V11 (95%), V12 (93%), V15 (90%), V16 (91%), V17 (93%) and V18 (96%). V1 through V9 were coder, participant demographic, day and date information; V13 and V14 were qualitative variables not included in the content analysis.

V10a–f examined RQ3, the modes of media—text link, video, etc.—used in user links. V11 examined the genre portion of RQ2, and V12 examined the topic portion. V15 and V18 examined RQ4, the original source types for the links; V16 and V17 examined RQ5, network friends’ responses to the links.

The 98 participants included 20 Korean Facebook users whose content was not in English. One coder coded these 20 participants, however, these participants were not used for this U.S.- and English language-centric paper. Once this culling was completed, frequency tests and cross-tabulations were performed to analyze the data for the remaining 78 participants.
Analysis

Posting External Links

RQ1 asks to what extent Facebook users share information through links. Thirty-eight of the 78 participants (49%) posted a total of 328 links. Of those 38 participants, 23 (61%) were women and 15 (39%) were men. The overwhelming majority were links that the participant apparently found on their own; only 6% were reposts from another Facebook user.

Sixteen (42%) of the participants posted at least 15 links during the study period; the remaining 22 posted between 1 and 14 (recall that 40 participants posted none). The researchers did not count links past 15, so the posting frequency of the more prolific posters was not recorded.

The 25–34 age group was the largest group of posters, at 18 (47% of the total). It was followed in descending order 35–54 with 11 (29%), 18–25 with 7 (19%) and 55-plus with 2 (5%). With so few respondents in the 55 plus age group, this group was merged with the 35–54 group for further analysis.

Genre and Topic of Links

To answer RQ2, which asks what genre and topic Facebook users share with their friend networks, the researchers coded both what the primary content of the linked material was (written article, video, photographs, audio, interactive, or other) and other content present but not primary in the links. Researchers also coded for topic
(politics, sports, arts/entertainment, health, technology, interpersonal, current events, other) and genre (news, feature, commentary, satire, comedy, general interest, products, other). One of the topics examined, sports, was barely represented, so it was merged into the arts and entertainment topic.

The leading genres linked to were general interest and news (21% each), followed by products (17%), commentary (10%), satire/comedy (9%), features (7%) and all others (15%) n = 328. Topics were lead by sports/art/entertainment (40%), current events (15%), health/technology (10%), politics (9%) and all others (27%) n = 328.

Women posted more links in all topics and genres other than politics and satire/comedy (58%, n = 320, p < .001).

Links in the feature genre were mostly posted by women (83%; n = 23, p < .001), as were links to news items (73%; n = 66, p < .001). Links to products were also much more prevalently posted by women (71%) than men (n = 55, p < .001). Links to satire/comedy were predominantly a male genre (66%; n = 10, p < .001).

Age group 35 plus (64%) dominated political links, with age group 25 to 34 at 29% and 18 to 24 at 7% (n = 28, p < .01). Sports/art/entertainment links are more likely to be posted by age group 25 to 34 (52%) than 35 plus (42%) or 18 to 24 (6%; n = 127, p < .01).

The users also were not using links to promote themselves; only a few (7%) were to material created by the participants themselves.
Modes of Media

RQ3 asked what modes of media (i.e., text, video, photos, etc.) that Facebook users link to. The most numerous primary type of content in a link was text (45%), followed by video (22%), photos (11%), audio (5%), interactive (4%) and all others (8%).

Men posted more video links (59% of the total) as a primary source for media type than women (n = 73, p < .01). Women posted more photo links (87%) as a primary source for media (n = 38, p < 001). Women also had more photos present in their links (64%) than men did (n = 144, p < .001). While women had more audio files present in their links (73% of total audio files) than men (n = 30, p < .001), men used audio more as a primary medium (87%, n = 15, p < .001). In another reversal, men had more interactive media—opportunities for the reader to respond or interact with the site, such as a commenting function or interactive graphics—present in their links (60% of total interactive links) than women (n = 144, p < .001), but women had more interactive media as a primary source in their links (71%, n = 14, p < .001).

Significant differences were also found by age. Ages 35 and up posted more links with photos as a primary media type (76%) than ages 25 to 34 (18%) or ages 18 to 24 (6%; n = 38, p < .001). Age group 35 plus (67%) had more written articles present in their posted links compared to age group 25 to 34 (29%) and age group 18 to 24 (4%) n = 42, p < .01, but age group 25 to 34 (54%) posted more links with articles as their primary media type than did age group 35 plus (34%) or age group 18 to 24 (12%) n = 146, p <
Age group 35 plus (51%) posted more links with interactive media present and as a primary media type than did age group 25 to 34 (42%) or age group 18 to 24 (7%) n = 158, p < .01. Ages 35 and up also posted more links to political material (64%) than ages 25 to 34 (28%) or age 18 to 24 (8%) n = 28, p < .01.

**Original Source Types**

RQ4 asked what the original sources of these external links were, for example, online news organizations and YouTube. Analysis showed link sources were varied; the researches coded for certain popular types of source (e.g., CNN, New York Times), but barely half fell in those categories. Video social networks such as YouTube and Vimeo accounted for 18%, online newspapers were 15%, music sharing sites were 7%, and broadcast news sites and blogs accounted for only 6%; 49% were coded as “other.”

Women out-posted men in all link source categories other than video sharing social networks (58%, n = 319, p < .001).

Video is the primary medium in more links by men (59%) than women (n = 73, p < .01). Photos are present in more material linked by women (64%) than men (n = 146, p < .001) and as the primary medium is linked by more women (87%) than men (n = 38, p < .001). Women also post more of the links with audio present (73%) than men do (n = 30, p < .001), but men post more of the links with audio as the primary medium (87%; n = 15, p < .001). In contrast, men also post more links (60%) with interactive presence
than women do (n = 144, p < .001), but women post more (71%) of the links in which interactive is the primary medium (n = 14, p < .001).

The age group 35-plus was more likely to post links to the items with photo as the primary medium (76%) than age groups 25 to 34 (18%) and 18 to 24 (5%) combined (n = 38, p < .001). Age group 35 plus also posts more (52%) of the links to items with interactive presence than age groups 25 to 34 (40%) or 18 to 24 (8%; n = 144, p < .01). Interactivity as a primary medium is also found more in links by age group 35 plus (50% of the total) than age groups 25 to 34 (43%) or 18 to 24 (7%; n = 14, p < .01).

Women provided more of the links to newspapers (71%) than men did (n = 48, p < .001), also broadcast and cable-news sites (72%, n = 18, p < .001), blogs (72%, n = 18, p < .001), and music sites (60%, n = 22, p < .001); men linked more (68%) to video sharing social networks (n = 57, p < .001).

Twice as many links to broadcast and cable-news sites came from age group 25 to 34 (67%) than from the other age groups combined; (35-plus 22%, 18 to 24 11%; n = 18, p < .05).

Responses from friends

RQ5 asks how others respond to links posted on Facebook with comments and likes. Participants and their contacts posted a total of 700 comments on the links studied, a mean of 2.1. Links posted by women got more comments on average (2.6)
than those by men (1.5; p < .01). The links also received a total of 287 likes, a mean of 0.9. Again, women’s links drew more likes on average (1.1) than men’s (.64; p < .05).

**Discussion**

This exploratory study sought information about what and how Facebook users are sharing both news and other types of external links. Findings from this content analysis show that less than half (49%) of the participants posted links during the three-month period they were being tracked. Setting a limit of the 15 most recent posts during the three-month tracking period, participants that did post links posted an average of 10 links.

Links to materials with photos was most prevalent (32%), but photos were less often the primary medium (11%). Written material dominated as the primary medium of posted links (45%), but was present only (13%) of the time when not the primary medium. However, video social network sites (18%) were linked to more frequently than any other specific type of online destination.

News and general information were the two leading genres but sports/arts/entertainment was the primary linked topic of choice.

Comparing linking patterns to Facebook’s general use patterns (iStrategyLabs, 2010), gender statistics of user linking follow general usage statistics within the U.S., with female Facebook users posting more links to share information with their network.
of Facebook friends than males. This study’s findings of link usage among age groups did not completely match up with Facebook’s general usage statistics concerning age groups (Facebook, 2010). This analysis found that age group 25 to 34 posted more links than age groups older than 35, which is contrary to general use figures, but age group 18 to 24 link and general use statistics were similar. Of course, too, this was a small sample of users.

Facebook of course is itself an interactive medium, with users able to pass along and comment on others’ links. In this sample, reposting was barely a blip; only 6% of links were reposted from another user using the network’s “share” function. With respect to comments and likes, nearly half (49%) of the links got no comments at all, and of those that did, the modes were 1 and 2 comments (12% each), but some discussions reached more than 10 comments, and one had 26. Links posted by women received both more comments and more likes than those by men.

**Conclusions**

It is important to the health of a democratic society and the business of journalism that we know more about this emergent form of news behavior and its implications for news media, which will have to continue to adapt in order to stay in business. The media were once seen as an “integral institution of governance” (Bennett & Iyengar, 2008) but are losing prominence; practitioners of journalism must understand their audience in order to meet its needs.
The researchers wish to emphasize the exploratory nature of the present study. The research was conducted without a monitory budget nor sophisticated online analytical tools such as logging software and online crawlers. The study, however, offers a glimpse into the linking nature and content of Facebook users who serve as information hubs within their Facebook networks.

Future studies may make use of analytical technology for more detailed examination of online friend networks and the information that flows on them, especially through networks’ application programming interfaces (APIs), which allow access to the services and some data residing therein. This allows for more detailed examination of characteristics of influential members—those whose shared links are most likely to be passed along further. Regarding logging software, a study in progress by Menchen-Trevino (2010) offers a model for studying individual behavior in the social-news nexus. The researcher has recruited participants to allow customized software called Roxy to collect their Web browsing data. “The content of websites with sensitive personal information ... will NOT be logged” (para. 7). This method offers a way to track and examine patterns in individual browsing behavior.

Along with the small and non-generalizable sample, an important limitation of the present study is the rapid evolution even within the Facebook network; the nature of the News Feed and changes in privacy capabilities creates challenges for researchers aiming to replicate others’ methods or to establish methods for others to emulate. This
phenomenon, of course, is not limited to Facebook. All the same, any illumination of the busy but mostly opaque social-information system helps our understanding. These limitations do not take from the value this exploratory glimpse offers into the uses of Facebook as a means for disseminating news.

References


http://www.insidefacebook.com/2010/05/05/some-early-data-shows-facebook-plugins-increasing-sites-traffic/


http://www.wired.com/wired/archive/3.11/media_pr.html


Ingram, M. (2008, March 27). “If the news is important, it will find me”. [Web log post].
Retrieved from http://www.mathewingram.com/work/2008/03/27/if-the-news-is-important-it-will-find-me/


Jarvis, J. (2008, June 18). The link economy v. the content economy. Retrieved from
http://www.buzzmachine.com/2008/06/18/the-link-economy-v-the-content-economy/


http://www.talkingpointsmemo.com/archives/2011/03/facebook_tpm_social_media_geeks_only_1.php

http://www.ericka.cc/btc/

http://stateofthemedia.org/2011/


