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# The Virtuous Cycle: Online News, Industry Change and User Choice

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THE VIRTUOUS CYCLE: ONLINE NEWS, INDUSTRY CHANGE AND USER  
CHOICE

by

Alan M. Rogers

B.S., Southern Illinois University Carbondale, 2006

A Research Paper  
Submitted in Partial Fulfillment of the Requirements for the  
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RESEARCH PAPER APPROVAL

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Alan M. Rogers

A Research Paper Submitted in Partial

Fulfillment of the Requirements

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Master of Science

in the field of Professional Media & Media Management

Approved by:

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ALAN M. ROGERS, for the Master of Science degree in Professional Media & Media Management, presented on April 6, 2011 at Southern Illinois University Carbondale.

TITLE: The Virtuous Cycle: Online News, Industry Change and User Choice

MAJOR PROFESSOR: Dr. Paul Torre

This paper addresses news media industry practices and technological advancements that influence the process by which internet users access news online. News organizations, automated news services, and emerging news platforms are discussed. Overall, the argument is made that the internet provides an expanded palate of news media options, but it is also marked by the dominance of a small number of content creators and crowd-driven influences on individual choices.

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## CHAPTER 1

### ONLINE NEWS AND USER CHOICE

#### **Introduction**

While the capabilities of the internet permit users to access the content of almost any news outlet on earth, in practice a variety of factors also serve to restrict or shape user choice. Changes within the news industry, some of which will be discussed here, help define the process by which people access the news. These factors work in tandem to at times expand the media choices of individuals, and in other cases limit them. Several defining qualities of the online news environment will be explored; the expansion of media options, the dominance of a small number of news outlets and content creators, and the crowd-driven nature of content choices.

The business of journalism and the way people access news has changed drastically since the advent of the internet. The implementation of the world wide web created a new platform for the distribution of news that has been increasingly embraced by traditional print and broadcast news companies, nontraditional internet news outlets, and the public alike. As of 2007 the internet was the primary news source for 40% of people in the United States (Pew Research Center 2008). The most recent published study shows the internet has exceeded the audiences of newspapers and radio, and ranks as the second most popular news medium behind television. Further analysis of Nielsen Net Ratings data collected from 4,600 news and information websites shows the number of unique visitors increased by an average of more than 9% in 2009 alone (Project for Excellence in Journalism 2010b).

Studies have also suggested that the generational, technological, and demographic gaps that divide internet news users from non-users are shrinking, with the proliferation of broadband internet access and a maturing computer-literate population (Pew Research Center 2006, 2009a). Slightly more than 60% of Americans access news online on an average day (Project for Excellence in Journalism 2010b), and the medium continues to evolve, with almost half of online news users getting news through email, automatic updates, or social media several times per week or more (Project for Excellence in Journalism 2010a).

The online news audience is faced with more choices than ever before. Following the flood of news organizations that launched online operations in the mid-1990s, enough news stories to fill almost 5,000 average-sized newspapers were published worldwide on the internet each day (Pavlik 2001). By 2005, approximately 1,500 individual newspapers were operating websites in the U.S. alone (Mensing 2007). This tally did not include the websites of news organizations other than newspapers, much less the countless news aggregators, web portals, blogs, and alternative media, which also publish news content online.

Given the potential for direct communication between news producers and their audiences created by the internet, it was predicted in the early days of the world wide web that intermediaries, those that distributed or re-distributed news content, would have decreasing amounts of control over the information individuals were exposed to (Paterson 2006). Scholars and journalists discussed the notion of a more immersed audience that did not passively absorb news stories that were selected by editors, but instead actively sought out the sources and content that best matched their interests and

viewpoints (Pryor 2000). It has also been noted that individuals now have more power to give their own accounts of events thanks to technology, bypassing professional journalists altogether to deliver their message directly to interested internet users through email, social media, or other tools (Project for Excellence in Journalism 2010b). This optimistic view of online news consumer habits led Tom Curley, president and CEO of the Associated Press, to announce "... readers and viewers are demanding to captain their information ships" (Curley 2007).

However, despite claims of the democratizing qualities of online news, the burgeoning quantity of information on the internet may be counteractive to the agency of audiences. Most users visit relatively few websites and tend to favor the sites of major media brands (Tewksbury 2003). As the number of news websites and services, and the amount of content, continue to mushroom seemingly without end, the confusing or intimidating number of options may cause users to purposely limit their media choices to a small number of sources.

About 70% of Americans agree "The amount of news and information available from different sources today is overwhelming" (Pew Research Center 2010b). Information overload makes concentration difficult, leading users to "choose not to choose," falling back on the routine of familiar news sources (Morville 2005). When facing a wall of potential media choices, consumers may revert to habitual patterns of media use. Once people learn a particular news organization or source fulfills their information needs, their active consideration of other alternatives decreases. These media use habits continue to strengthen over time (Didi and LaRose 2006).

Morville (2005) offers a bleak view of the user-empowering qualities of online news media:

“We select our sources. We choose our news. But since we’re swimming in information, our decision quality is poor. So, how do we stop from drowning? We fall back on instinct... We pay attention only to messages that find us. And when we do search, we skim” (Morville 2005).

Reliance on customization features may be one way people attempt to deal with the onslaught of information, with more than one quarter of users using a customized home page that displays stories filtered by source or topic (Pew Research Center 2010b). Paterson (2006), however, suggests these types of tools; combined with the volume of content, number of news websites and services, and potential for user choice in the online news environment; actually serve to camouflage a lack of information diversity that mirrors traditional print and broadcast news.

“The internet has fully transitioned into what we have traditionally regarded as ‘old media.’ it is now, for most users, a mass medium providing mostly illusory interactivity and mostly illusory diversity. It is becoming a substantially tailored mass media product through the personalisation [*sic*] of information delivery, but these phenomena make it no less a form of mass media than would the insertion of targeting advertising into a magazine delivered to someone’s home” (Paterson 2006).

The lack of complete understanding as to how internet users find and choose news content comes at a turning point in the industry as news organizations struggle financially in the midst of the transition to online delivery. Network and local television news

programs have seen drastic ratings drops, and cable news networks have managed to slightly increase audience share thanks only to ideologically slanted talk shows (Project for Excellence in Journalism 2010b). Newspaper circulations in particular have steadily declined for decades. Overall readership dropped about 50% between 1967 and the 1990s, even before the internet emerged as an alternative news platform (Balnaves, Green, Shoemith, Lim, and Hwee 2003). In 2009 the newspaper industry saw a total circulation loss of more than 10%, bringing the total loss since 2000 to more than 25% of readers. In addition to the lure to readers of free online news, decreased circulation has been attributed to reductions in distribution areas to save on delivery costs, the shrinking amount of content due to smaller reporting staffs, sharp increases in single-copy cover prices (Project for Excellence in Journalism 2010b), and an increasingly difficult to reach youth audience.

News organizations have assumed that online news efforts will help them reclaim the youth market (Balnaves et al. 2003), but this has yet to be fully realized. It is worth noting that although many industries target teenagers and 20-somethings to take advantage of their buying power, 30 years of age is still considered “young” in the news business. Online revenues continue to increase as advertisers turn to the internet rather than print publications, but overall advertising spending in news media is decreasing (Stoff 2008). In the same year, advertising revenue, including that from online advertisements, dropped 26% (Project for Excellence in Journalism 2010b).

Despite increased efforts by news organizations to funnel subscribers and advertisers onto the web, decreasing newspaper circulations have only partially been offset by growing online audiences (Pew Research Center 2010a). This disparity appears

to suggest people are giving up on news consumption altogether, disproving industry assumptions that readers are abandoning paid newspaper subscriptions for free online news. However, it has also been shown that most internet users rely on web portals and the websites of major legacy media rather than the sites of their local newspapers or television stations. The top 7% of news websites receive 80% of total web traffic, with the 20 most popular sites accounting for most of that number (Project for Excellence in Journalism 2010b). This indicates that internet users are not taking advantage of the vast quantity of news sources available to them. Instead, they are flocking to a handful of popular web portals, aggregators and national news outlets.

Regardless of decreases in newspaper circulation and television audience share, more people than ever before are accessing the news. Unfortunately for journalists and their employers, however, most say they would not pay for it and few would be concerned if their local newspapers stopped publishing the news (Pew Research Center, 2009a, 2009b). Only 7% of internet users reported they would be willing to pay to access their favorite news website. In fact, most users do not have a favorite source at all (Project for Excellence in Journalism 2010b). The potential for implementing pay walls or subscription fees for news websites, most of which are fully accessible at no cost, seems bleak given consumers' tendency to browse for news from a variety of sources and the lack of loyalty to any particular brand. As of 2005, less than 3% of all newspaper websites charged any type of subscription fee (Mensing 2007), and few news outlets have implemented pay walls since that time.

Given the questions as to exactly how internet users find and choose news sources and content, and the necessity for troubled news outlets to better understand their

increasingly distant audience if they hope to regain financial stability, this paper seeks to describe major characteristics of online news and their impact on user choice. The following discussion will address news organizations and operations, automated news services such as aggregators, and emerging distribution platforms including social media and mobile devices.

### **The Study of Media Use**

Portions of this paper deal with the relationships between media technology and users in the online news distribution process. Media technologies, from the printing press to the smartphone, mediate user experience with news content, and the rapid proliferation of digital news services and platforms warrants an examination of the impact these technologies have on users. A technological approach to media analysis cannot address the multitude of social, cultural, political and other implications of media, but any study of media use is at its core an analysis of how people utilize and interact with media technologies (van Loon 2008).

Mass media as we know them today developed in the late nineteenth and early twentieth centuries, propelled by new media technologies; photography, the phonograph and the motion picture. Together with the printing press, the media products created and distributed using these technologies served to synchronize the public by ensuring that each individual had access to identical news and entertainment media (Anderson 2006). The effect would be magnified by the nationwide dominance of news agencies and the three major television networks, and later cable news networks.

Just as new technologies ushered in the era of mass media, so did they eventually contribute to its weakening. In the world of music, advances such as personal compact

disc burners and peer-to-peer sharing services such as Napster gave consumers more music for drastically lower costs, and at the same time opened doors of opportunity for users to easily find new bands and albums they would not have had access to (or even knowledge of) otherwise (Anderson 2006). Likewise, in the online news environment consumers face expanding, diversified options and decreasing costs.

Historically, advancements in news media technology have been drastic with swift, near-universal adoption; such as the introduction of the printing press, telegraph, radio and later television broadcasting. At the peak of newspapers' migration to the internet, Davis and Owen (1998) observed that the American news industry was in the midst of another such technological shift. However, well over a decade later there is no clear indicator as to whether that transition is complete, ongoing, or has just begun. Pryor (2000) noted that online news distribution is problematic because rapid digital advancements cause news outlets' implementations of technology to quickly become obsolete.

The internet continues on the path towards becoming the dominant news sources in the U.S., but at the same time countless other developments are constantly reshaping the news environment. People are becoming increasingly reliant on the ever-increasing number of communications media (van Loon 2008), and the rapid implementation, and sometimes fleeting popularity, of social media and other emerging news delivery platforms means that on some scale, a revolution in news media technology is always taking place. A technological approach is appropriate for the study of online news because technology is essentially the only thing differentiating online news from print or

broadcast media. The purpose and practice of journalism remains largely the same across media (Bardoel and Deuze 2001).

Modern scholars have commonly employed the uses and gratifications approach to media studies, considering the motivations that drive media choices and the benefits they provide to the user. Uses and gratifications suggests individuals' media choices are goal-oriented and active attempts to fulfill needs or wants. Adoption of the approach was a departure from previous scholarship that identified media audiences as passive, homogenous groups of information receivers (Chung and Yoo 2006).

The approach to uses and gratifications of media is made under the assumption of an active audience. Specifically, people use media actively in pursuit of a goal, such as obtaining information or entertainment, rather than passively absorbing whatever content is made available to them. Similarly, media are not said to have influence, not effects, on users. Rather they are tools or sources of information individuals use to help shape their own thoughts, opinions or actions. Media are naturally in a state of competition with different media, as well as other alternatives, as sources of gratification for the audience (Katz, Blumler, and Gurevitch 1974). Gratifications may be drawn from media content, exposure to the media itself, or the social context that defines the media use (Katz, Blumler, and Gurevitch 1974). Modern studies of the uses and gratifications of media typically focus on:

“...(1) the social and psychological origins of (2) needs, which generate (3) expectations of (4) the mass media or other sources, which lead to (5) differential patterns of media exposure (or engagement in other activities), resulting in (6)

need gratifications and (7) other consequences, perhaps mostly unintended ones” (Katz, Blumler, and Gurevitch 1974).

The uses and gratifications approach has generally been accepted as an appropriate model for mediated communications research, and has previously been applied to media technologies, the internet and “new media” studies (Chung and Yoo 2006) as well as the study of college students’ online news habits (Diddi and LaRose 2006).

Kayahara and Wellman (2007) identified several content and process gratifications that motivate use of the internet for information gathering. In terms of content gratifications, the internet provides access to almost any information a user could conceivably desire. In particular, individuals can access content that matches their personal interests rather than mass media content designed to appeal to the public as a whole. From the point of view of process gratification, the web also provides information at incredibly high speed and efficiency with minimal effort on the part of the user. It is also extremely timely, delivering information the moment it becomes available.

Chung and Yoo (2006) recognized socialization, entertainment, and information seeking/surveillance as the primary motivations for visiting online news sites. Information seeking/surveillance rank first in importance by a strong margin, followed by entertainment. Socialization functions of news sites were shown to be significantly less desired by users.

The study of online news use is warranted, as the internet may gratify needs not addressed by traditional news media such as social surveillance and personal expression (Johnson and Kaye 2009). It also has the potential to gratify the needs for in-depth

information provided by newspapers along with the entertainment and escapism needs provided by television news (Diddi and LaRose 2006). Furthermore it has been suggested that individuals seeking cultural information tend to use the internet to find “specific, solution-oriented information,” and generally focus on subjects they are already interested in as opposed to searching for general information or content they are not already somewhat familiar with (Kayahara and Wellman 2007).

### **Media as Gatekeepers**

Gatekeeping is the process by which all the information that exists at any given time is narrowed down to the relatively small number of messages that reach an individual. The concept is mainly applied to mass media, and in particular journalists and news organizations. Research on mass media gatekeepers typically focuses on the characteristics, values and organizational constraints that influence the process (Beard and Olsen 1999).

In essence, media professionals make judgments as to the quality, value or importance of information. These choices determine what information will be passed along (i.e., allowed through the “gate”), and therefore define what information audiences are exposed to. Forces that can influence gatekeeping actions may also government bodies, industry regulations or standards, organizational decisions, and the choices of individuals (Barzilai-Nahon 2008); all of which are influential on the information received by the end user. Gatekeeping actions generally are the result of personal or organizational factors: Societal factors such as cultural hegemony, social structure and ideology also come into play (Shoemaker 1991), but for the purposes of this analysis a review of the more tangible aspects of the process will suffice.

The process is not necessarily conscious or active, with journalists and editors debating which stories they deem worthy of making available to the public. Just as often it is the sum of passive assessments and the nature of the news gathering process itself (Shoemaker 1991). Gatekeeping begins when a journalist or other content creator is exposed to a piece of information and simply decides if it is significant in any way. Normally that information must pass through several layers of gatekeeping before it reaches a public audience.

For example, a newspaper reporter may see a community meeting listed on a calendar and think the event may interest the paper's readers. At the event the reporter chooses to talk to several official sources as well as local residents he or she thinks are the best qualified to comment on the event. Then, while writing the story, the reporter chooses to include only the sources he or she thought provided the best answers. Next, the reporter's editor determines if the story is worthy of publication and makes additions to, or subtractions from, the story, again based on subjective judgment. Finally a page designer determines the placement and prominence of the story within the newspaper itself. Even in this oversimplified illustration, information regarding the community meeting passed through six layers of gatekeeping based on the reactions of three media professionals.

Shoemaker (1991) and Shoemaker and Reese (1996) identified various stages of information flow where gatekeeping actions can, or do, occur. At the individual level, the process is influenced by journalists or other media professionals themselves. Personal opinions, preferences, or gut reactions to information determine what information is significant or newsworthy.

At the organizational level, news institutions have set restrictions on what content they will and will not publish. Operational guidelines may be broad; including a newspaper that only publishes stories of national importance, or a television network that covers only sports; or specific; such as a publication appealing to a particular demographic or interest group, or one that prohibits sexually suggestive content.

Routines by which journalists carry out their jobs also play a role, from the reporting process to distribution. As examples, standards of objectivity may exclude stories that are not balanced with opposing viewpoints or that quote anonymous sources. The news cycle (particularly printing deadlines or broadcasting schedules) may exclude news events that occur at inopportune times of day, and space or time limitations may cut stories short.

The extramedia level of gatekeeping complicates an organized analysis of the process, because it is influenced by factors external to the news organization itself. Individual sources, governments, interest groups, public relations, and other influences all mediate what information journalists have access to.

The internet creates the potential for news content to travel from the original creator to the user with minimal mediation. Typically, however, information passes through more layers of gatekeeping entities online than in traditional media (Niles 2010). Barzilai-Nahon (2008) proposed the concept of network gatekeeping, suggesting that in a network (online or otherwise) gatekeeping may involve a variety of actions beyond the selection of content. Other actions include addition, withholding, display, channeling, shaping, manipulation, repetition, timing, localization, integration, disregard, and deletion of information.

Within a network, information flow can be shaped by channeling mechanisms such as search engines, links or directories that define the user's path to the information; censorship mechanisms such as filters that suppress or delete objectionable content; value-added mechanisms, including customizable features, that increase the attractiveness of the gated network to audiences; and editorial mechanisms, which are content decisions made by human editors (Barzilai-Nahon 2008).

Online news services fulfill much of the traditional gatekeeping role of other news media (Bui 2010). Beard and Olsen (1999) demonstrated that the behaviors of webmasters (website creators or administrators) classified them as media gatekeepers. They found that unlike print and broadcast journalists, where the gatekeeping process is more hierarchal, webmasters have shown the tendency to collaborate with others when making content choices. They also noted the large amounts of content cycling through news websites may at times hinder staff ability to process it and make informed content choices. Instead, it is likely the overworked editors will post content as it becomes available without much review or oversight.

Bui (2010) addressed network gatekeeping by online news portals, specifically Google News and Yahoo News. News portals are not the only gatekeeper online; gatekeeping actions by news organizations and other media come into play before the content reaches the portal. Portals are, however, often the final gatekeeping mechanism which directly mediate the relationship between content and users.

Bui described an environment of "information discrimination" or "search engine bias" as the result of the gatekeeping actions of web portals, which automatically select and display stories from a variety of sources and typically account for large percentages

of online news usage. Information discrimination is the result of the mechanical computation of data; but any bias in the way news content is ranked and displayed can have social effects. Also, web portals are for-profit operations, so market decisions may influence the process by which they select news content. If their target audience has shown a preference for particular sources or types of content it is in operators' best interest to tailor results to fit those needs (Bui 2010).

“...Web portals can allocate the attention of their users by acting as the gatekeepers to online information: the inclusion and ranking process makes certain pieces of information and sources more easily reached than others, and as the results, users are exposed to a limited package” (Bui 2010).

Prior to the introduction of the internet into the media environment it was suggested audiences did, or at least could, influence the gatekeeping process through journalists' interpretations or assumptions of audience wants or needs (Shoemaker 1991). In the online news distribution process, however, audiences can in fact play an active role in the cycle, in a sense becoming gatekeepers themselves by viewing, sharing and ranking content. To an extent, the gatekeeping role of media producers has been replaced by the collective intelligence of the audience as a whole (Anderson 2006). New media technologies and platforms, including intelligent agents and social media, allow users to perform gatekeeping functions; influencing others' exposure to information while making their own media use choices (Sundar and Marathe 2010).

It has been suggested that the internet has severely limited, or even eliminated, the news industry's gatekeeping function (Niles 2010). While this is to some degree an exaggeration, it is possible that individual news outlets hold less power in shaping the

media choices of audiences than they once did. It is important to note that, just as the gatekeeping choices of journalists and editors are determined by their own experiences, opinions and influences, so too is each online news outlet unique. Each website or service differs in terms of content, function, technology and target audience, so making overbroad assumptions about the process of information discrimination would be in error (Bui 2010).

The shift in decision-making power from journalists to audiences has been observed and, typically, bemoaned by members of the industry who view it as a threat to the livelihoods of journalists and editors. However, although the gatekeeping role of individual news organizations is reduced online, media professionals are still required to mediate people's use of news, albeit in different capacities (Bardoel and Deuze 2001). For users to be able to actively find and choose the news they consume, journalists must be increasingly in tune with their audience's habits and decision-making processes. New tools, from subject categories on news websites to algorithms that process search engine queries, need to be properly implemented and exploited if news organizations intend to continue fulfilling their goal of informing the public.

### **Characteristics of News and Information Online**

Online news distribution means that news producers and audiences can be more globally connected, with information easily transferable across geographic, political, or cultural boundaries. The term "Web 2.0" emerged to describe more modern internet experience, defined by participatory features such as blogs, commenting, social media, and crowd-sourced information sources such as Wikipedia. The more-participatory nature of online news, typified by features such as user-submitted content and discussion, has

also given rise to the term “Journalism 2.0” (Rebillard and Touboul 2010). Studies of Web 2.0 technologies and uses for the purposes of news distribution have highlighted the increased potential for democratization and user empowerment. Defining characteristics of online news have been described as interactivity, customization of content, hypertextuality, and multimedia convergence (Bardoel and Deuze 2001).

The internet raises the interactive nature of news media to a new level; from talk radio and letters to the editor to real-time discussion between journalists and their entire audience (Bardoel and Deuze 2001). Interactive and immersive content also foster the internet’s “pull” media capabilities (Pryor 2000), enabling and encouraging users to actively seek out the information of their choosing. Rebillard and Touboul (2010) observed that although participatory features have been referred to as the defining aspects of online journalism, newspapers downplayed the presence of these elements on their websites by placing links to comments in inconspicuous locations. Also noting that newspapers’ links to blogs favored mainstream journalistic sources, the authors concluded news organizations remain uncomfortable including non-professional expression on their websites.

There is some evidence of a disconnect between the needs and habits of internet users and the practices of news outlets. A survey of news editors listed credibility, utility, immediacy, relevance, and ease of use, respectively, as the most important criteria of news websites. Although interactive features are generally highly desired by users, journalists ranked “citizen participation”, “interactive reading” and “community dialogue” as relatively unimportant compared to other criteria of news websites (Gladney, Shapiro and Castaldo 2007).

Content customization functions allow people to closely tailor the news they are exposed to, creating a unique experience for each individual (Bardoel and Deuze 2001). Examples include RSS feeds, personalized web portals, email or mobile news alerts, and subject filters. Customization features dilute the role of news producers and distributors as gatekeepers by allowing individuals to receive only content relating to areas of personal interest (Sundar and Marathe 2010).

The hypertextual nature of the web transforms news stories from static, isolated documents into adaptive gateways with links to new information and related content from within the story itself (Bardoel and Deuze 2001). Although news online may be highly specialized and lend itself to niche audiences, users of a particular mindset or interest group are not necessarily cut off from other issues or points of view. Hyperlinks allow even the most narrowly focused story to branch out into a more-informative or broader context (Pryor 2000).

The point-to-point navigation metaphor is often used to describe the process by which users follow hyperlinks to find information. However, this does not give credit to the potential for unlimited connectivity between websites. There are simply too many connections between websites and their content to map out, and each user's path is to a large extent self-determining (Morville 2005): "There are billions of web sites, and they're all a single click from each other... There's always a shortcut. There's always another route" (Morville 2005).

News media convergence often refers to the increasing synergy between distribution platforms. Traditional news outlets encourage synergistic media use habits by encouraging audiences to visit their websites for breaking news coverage or other special

features. At the same time, those websites typically contain content drawn from the news organization's primary, offline product. It is possible that this symbiotic relationship between platforms fosters online consumption of news while preserving traditional media use habits (Diddi and LaRose 2006). Legacy media organizations operating print or broadcast news products along with news websites quickly moved towards convergence of their two platforms, initially duplicating their existing content on the web verbatim. By 2000 many news organizations had moved beyond this "shovelware" approach to their online product, with journalists generating original content exclusively for the web (Bardoel and Deuze 2001).

Convergence also concerns the fusion of media formats online, such as the embedding of video within text or the use of animated slideshows utilizing photos and audio. Convergence of media is not limited to the internet. Clearly, a television newscast is likely to incorporate video, sound, graphics, and text. Online, however, journalists have the ability to choose between the various media formats on a story-by-story basis, adapting to the nature of the content and the demands of the audience to best deliver the information (Bardoel and Deuze 2001). News reporters have at times come to resemble producers more closely than writers; they are responsible for assembling stories encompassing a variety of media and spanning multiple distribution platforms (Pryor 2000).

The functionality of information websites can classify them as push or pull media. More commonly, news outlets make use of a combination of the two formats. Push media "push" content choices on users rather than expecting them to actively search for, or "pull" it (Balnaves et al. 2003). In regards to news, push media present the user with

headlines, links and other content that the news organization's editors feel users should be accessing. Pull media are user-driven and includes search functions, keyword or category browsing, and so on (Morville 2005).

The overwhelming amount of news content available online (Pew Research Center 2010b) and news outlets' presentation of homogenous content under the guise of customization (Paterson 2006) have led push media to be dubbed the internet's "trend *du jour*" (Balnaves et al. 2003). Even with the prevalence of push media, most online news outlets offer greater individual choice than print or broadcast operations. Push news is not necessarily the product of a heavy-handed editorial staff, and can be much more than an uninspiring website with static links and headlines. More advanced push media such as filters and RSS feeds take user preferences, not editorial decisions, into account when delivering news content to the user (Balnaves et. al. 2003).

The economics of online distribution contribute to the wealth of news available on the web. In traditional media markets, distributors or retailers are entirely dependant on their local populations in forming their audience or customer base. Producers cannot hope to earn a profit from content that only appeals to a small fraction of the public, therefore they must focus on the lowest common denominator; mainstream media products that are relevant to the public as a whole (Anderson 2006). There are also physical constraints to the quantity of content that can be distributed in traditional media. Newspapers and magazines can contain a limited amount of text and images, and newsstands can only sell a limited number of these publications. Radio and broadcast television, and to a lesser extent cable and satellite, are restricted by the hours of airtime available per day as well as the number of channels available. Book, music and film distributors face the same

constraints of time and space. Digital media meanwhile require no raw materials, storage space or transport, and can be distributed with negligible increases in cost regardless of the number of users (Anderson 2006).

Sylvie (2008) applied Anderson's (2006) Long Tail model to news distribution, illustrating how the content choices and search capabilities of the internet lead users to access the news stories of their choice regardless of factors that would otherwise limit their options, such as geography and the decisions of news editors. In fact, on average, non-local users now account for more than half of newspaper websites' audiences. Local users do continue to visit news sites more often and consume larger quantities of content, but it is clear that geographical proximity is not always a deciding factor in news media choices (Sylvie and Chyi 2007, Sylvie 2008). Many news sites are "trapped between the local nature of their content and the global nature of the medium" (Chyi and Sylvie 2001), trying to find a balance between effectively serving the local news market and competing with national or international news media organizations for local users.

### **News Audiences Online**

The internet currently ranks just behind television as the most popular news medium in the U.S., and more than 60% of Americans get news online on a given day (Project for Excellence in Journalism 2010b). About one third of people in the U.S. go online for news every day of the week, with that number climbing to 44% when mobile devices are included in the tally (Pew Research Center 2010a).

The average American spends 70 minutes per day with news media, an increase over past years (Pew Research Center 2010a), and follows between two and five news sites on a regular basis. However, most spend just over three minutes at a time on an

individual news website (Project for Excellence in Journalism 2010b). In a study by Dua and Segel (2007), respondents reported accessing 12 to 16 news outlets per week. Users also reported viewing content from multiple sources intermittently throughout the day. The authors identified “brand promiscuity” as a defining characteristic of online news audiences (Dua and Segel 2007).

The “digital divide” between populations; specifically between middle-class white Americans and lower-income African-Americans and Hispanics, has been well noted. However, it has also been observed that individuals with higher education and income levels tend to be early adopters of new technologies, and new telecommunications infrastructure is first launched in metropolitan areas (U.S. General Accounting Office 2001). Internet access and use of online news have steadily spread across economic, generational, and racial divides, largely mirroring the proliferation of broadband internet infrastructure. Internet-enabled mobile phones have also helped provide web access to people who would otherwise be blocked by the costs of computer ownership or other limitations (Pew Research Center 2006, 2009a).

Most U.S. college students consume news content, but not at the rate of older Americans. They rely on the internet for news, but at the same time show no indications of abandoning traditional media; they still consume newspapers, magazines and news broadcasts, only in reduced quantities. Reliance on this mix of news media may be attributed to user habit; internet use does not necessarily eliminate habits of traditional media use (Diddi and LaRose 2006). Although audience sizes have been declining overall, the proportion of Americans who get news from print, radio or television has remained largely the same. Most people appear to be using a combination of online and

offline media rather than switching entirely to internet news sources (Pew Research Center 2010a).

### **Consumer Behavior Online**

A traditional “funnel” approach to marketing suggests that consumers start with a large number of product or brand considerations, and narrow the pool of potential purchases down to several options and eventually the final choice. Choices are influenced by everything from advertising to past experiences and the recommendations of other people. After a consumer selects or purchases a product, there begins a post-sale trial phase that is essential to building brand loyalty. The consumer’s first impressions of a product or service play a major role in the decision to either use the product again in the future or search for an alternative (Court, Elzinga, Mulder, and Vetvik 2009).

A 2009 McKinsey study of almost 20,000 people found distinct changes in consumer decision making that are directly linked to the increased choice and interactivity provided by the internet. With an enormous number of product choices readily available, consumers now tend to initially consider fewer brands than before when making a purchase decision. With so many options, evaluating all of them equally would be time consuming if not impossible, so people instead consider a small number of brands they are familiar or experienced with (Court et al. 2009).

Consumers also show more signs of empowerment in the online marketplace. Rather than basing decisions on information garnered from advertisements and marketing campaigns, individuals actively gather information by researching, reading product reviews and soliciting recommendations from friends. About two thirds of brand impressions arise from these types of consumer-driven marketing efforts (Court et al.

2009). Studies have noted discrepancies between the behaviors of power users; highly experienced or “expert” internet and technology users who fully exploit the potential of media platforms, devices and services; and non-power users. Power users with high expectations of internet news services may be more likely to seek alternative information sources when confronted with “push” content or other characteristics that limit individual choice, whereas non-power users may be drawn to those sources for their simplicity and lack of options requiring active decision making (Sundar and Marathe 2010).

When choosing between products or services, most people will use the one they are most familiar without much consideration for the others simply because they are aware of or experienced with it (Martin 2008). For example, a person is likely to use the same news outlets daily not because he or she has thoroughly evaluated the content and considered all the alternatives, but because the number of options may be overwhelming and “any attempt to engage his executive mind would hold up the system and prolong the chaos” (Martin 2008).

Repeat customers of a brand can be classified into one of two groups; active and passive loyalists. Active loyalists are users who recommend the brand to others in addition to using it themselves. Passive loyalists, meanwhile, stick to a particular brand but are not committed to it. In fact, they may not even like the product or service but continue to use it out of habit. They may be unaware of other options, overwhelmed by a huge number of similar competitors, or simply not think it is worth the extra time, effort or money to switch brands. Passive loyalists can be responsible for as many sales as active loyalists, but since they are not actually committed to the brand they are always at risk of being attracted by a competitor. Also they do not help strengthen the brand by

recommending it to new potential customers, something that is especially important in a market environment where reviews and personal recommendations play a key role in consumer decisions (Court et al. 2009).

In many cases, consumer loyalty to specific brands is quite weak. There is not necessarily a positive relationship between satisfaction and an individual's decision to repurchase in the future, and individuals don't always fully judge many products or services they use. Feelings of satisfaction are also based on the individual's expectations prior to use or purchase (Martin 2008). A news consumer who reads a three-paragraph story about an auto accident on the website of a local, weekly newspaper may be content and grateful for the information, but if the same user were to find the same story on the website of a national news outlet they would likely find it amateurish, uninformative and a hindrance preventing them from locating whatever content they were searching for.

### **Selective Exposure, Verification and Differentiation**

One key to examining the use of news on the Internet is the concept of selective exposure, which Sears and Freedman (1967) defined as "any systematic bias in audience composition". Simply speaking, selective exposure means that individuals actively choose what information they prefer to read or view. This concept is particularly important when dealing with news, when media choices can determine not only the user experience but also the facts and biases obtained.

Traditional mass media offer audiences limited choice. The content of newspapers is static, and the reader can read only the stories specifically chosen by editors. Depending on the city or region, an alternative newspaper may or may not be available. Radio, and to a greater extent television, expanded the palate of media choices by

offering multiple channels to choose from at any given time. Now, the internet provides “a theoretically limitless newshole” (Johnson and Kaye 2000) with almost no barriers to how much information can be posted.

Web users can do more than choose which news sources they want to use; with the wealth of information available online they can easily seek out stories they are interested in along with opinions that match their own viewpoints. It has been shown that audiences of particular media tend to overrepresent the viewpoints expressed in those media when compared to the general public (Sears and Freedman 1967). For example, the readership of a news website that supports a conservative political standpoint is likely to attract an audience that agrees with those views.

Selective exposure permeates almost all news media experiences. To some extent, people choose which source they will obtain news from and which stories to read, and it is natural to choose information that is interesting or agreeable to the viewer. Importantly, the nature of the internet means that users have more control over their news media experience than ever before. The enormous and varied amount of news content on the web allows each individual to precisely choose which issues, events or subjects he or she wishes to be informed about.

The explosion of content on the internet has led to popular debate about the credibility of online news. Definitions of credibility vary (see Hovland and Weiss 1951; Gaziano and McGrath 1986; Metzger, Flanagin, Eyal, Lemus and McCann 2003) but the term can best be used to describe information that is accurate, complete, and believable (Johnson and Kaye 2000). Reasons for these concerns are varied and include the potential for users to confuse factual news stories with false or misleading information that

coexists on the internet (Pavlik 2001), the fact that any individual can create and post professional-looking content (Johnson and Kaye 1998), and the practice by journalists of posting stories and updates online rapidly without the editing and review process typically required for articles appearing in print (Cassidy 2007). It is worth noting that newspapers, news magazines and television programs all have standardized processes of editing, fact checking and review for stories, whereas the internet does not (Flanagin and Metzger 2000). One explanation for this is the pressure placed on news outlets to provide constant coverage of events, posting stories online immediately as they become available rather than putting them through a formal editing process (Johnson and Kelly 2003).

One effect may be that internet users are aware of the need to differentiate factual news from opinion. One study found that people consider online news to be significantly more credible than online press releases with identical content (Jo 2005), which suggests that readers are considering potential motives of the source when searching for information on the internet. Likewise, online news users identify the work of online newspaper journalists as more credible and less opinionated than that of citizen journalists; amateur reporters who post local news stories online (Carpenter 2008). Here again there is clearly an active effort by readers to analyze the information that is presented to them.

Verification is a process by which a reader or viewer identifies a news story as credible. On the internet this can take many forms, ranging from actively searching for other sources to confirm the information, to noting subtle details in the content that serve as clues about its authenticity. The most obvious method of verification is the former. Strategies for active verification may include checking to see if the information is current

and comprehensive, identifying whether it is fact or opinion, consulting other sources to confirm facts, identifying the author and considering his or her motivations and credentials, and looking for marks of approval or recommendation. Research has shown that people give higher credibility ratings to online news when the information present in the stories is corroborated by an outside source (Bucy 2003).

However, a survey of college students in the United States, who rely heavily on the internet for news and research, showed that few proactively utilized such verification methods (Metzger, Flanagin and Zwarun 2003). Rather, internet users tend to identify online news as credible by associating it with an established publication or brand. Easily identifiable news sites published by existing brands, such as the New York Times, and sites that use branded content from well-known organizations, such as the Associated Press, hold an advantage over non-branded news in terms of perceived credibility by users (Abdulla, Garrison, Salwen, Driscoll, and Casey 2002). This is the result of a more passive verification; the user does not have to search for corroborating information but feels secure knowing that the individual story is part of a large body of credible news.

Experienced internet users, especially young people, may also draw on subtleties of the content when making a determination of credibility. Some factors that may influence credibility are source references, author contact information, presence or absence of advertising by known companies, visual appeal and quality of the site design, quality of writing, use of external links and ranking in search engine results (Metzger 2007). No one of these qualities could be said to definitively qualify a news site as credible, but each contributes to the overall impression of the user.

## CHAPTER 2

### NEWS ORGANIZATIONS AND OPERATIONS

#### **Legacy Media**

Legacy news media (alternately “traditional” or “old” media) are media that served as the primary means of news distribution before the introduction of the internet; primarily newspapers, news magazines, television and radio. Legacy and online media are strongly linked, as most internet news operations still have limited content creation abilities (Project for Excellence in Journalism 2010b). Many legacy media operations were early adopters of the internet as a platform for distributing their content, and the websites of major news organizations quickly became popular destinations for news. At the same time however, their efforts became fodder for a host of “free riders” including web portals, search engines, aggregators and other services that utilize content produced by legacy media to populate their own sites (Jones 2009).

Newspapers in particular are still responsible for the majority of new reporting, with their efforts feeding information to television and radio news operations as well as news websites, but reduced staffing and budgets continue to limit their ability to carry out this primary function (Kann 2009). As a result the variety of news is reduced across all media, even if the quantity of content appears to increase through the duplication and redistribution of stories.

Compounding the effect of the distillation of news content online, news audiences online have become highly concentrated as well. Most users visit relatively few websites compared to the multitude of possibilities and tend to favor the sites of major media brands (Tewksbury 2003). Almost 200 U.S. news websites receive more than 500,000

visitors per month, with the top 10% accounting for half of total user traffic. Of these, 67% are websites of legacy media organizations and slightly less than half are newspaper websites. Additionally, the top 7% of news websites receive 80% of total web traffic, with the 20 most popular sites accounting for most of that number (Project for Excellence in Journalism 2010b). Most significantly, almost all of these 20 most-used websites are the online operations of national legacy media or are aggregators that make use of content drawn primarily from legacy media (See Table 1). Most people report they do not have a favorite online news outlet, but those who do tend to identify major television news networks including CNN and Fox News. Many also prefer to get news from the major web portals. Only 13% identify a local news website as their preferred news source (Project for Excellence in Journalism 2010b). The implications drawn from this are twofold. First, national legacy media organizations directly operate the majority of popular news websites. Second, the remaining popular news sites rely heavily (sometimes exclusively) on the content of national legacy media.

Table 1: Top 20 News Websites by U.S. Audience, 2009

Nielsen NetView Ratings			Hitwise Ratings		
Rank	Website	Unique Users	Rank	Website	Audience Share
1	Yahoo News	40,811,000	1	Yahoo News	7.18%
2	MSNBC (and affiliates)	35,571,000	2	CNN	3.34%
3	AOL News	24,358,000	3	MSNBC	3.10%
4	CNN	20,739,000	4	Google News	2.76%
5	New York Times	18,520,000	5	Fox News	1.96%
6	Google News	14,737,000	6	Drudge Report	1.93%
7	Fox News	12,650,000	7	New York Times	1.67%
8	ABC News	10,331,000	8	USA Today	1.43%

9	Washington Post	9,810,000	9	People	1.01%
10	USA Today	9,311,000	10	AOL News	0.89%
11	Huffington Post	9,073,000	11	Yahoo Local	0.85%
12	LA Times	8,522,000	12	Huffington Post	0.7%
13	Daily News	6,889,000	13	Washington Post	0.69%
14	CBS (local affiliates)	6,576,000	14	BBC	0.67%
15	Examiner	6,071,000	15	EzineArticles	0.65%
16	NBC (local affiliates)	5,678,000	16	TV Guide	0.63%
17	Time	5,506,000	17	Topix	0.62%
18	Fox (local affiliates)	5,217,000	18	Time	0.60%
19	CBS News	5,003,000	19	Bloomberg	0.53%
20	BBC News	417,000	20	Reuters	0.46%

(Source: Nielsen NetView and Experian Hitwise online metrics as reported by Project for Excellence in Journalism (2010b). Results vary between the two services due to methodology.)

Of the top news websites compiled by Nielsen and Hitwise, only EzineArticles does not make use of legacy media content. Huffington Post and Drudge Report contain significant amounts of commentary and occasional original reporting, but still rely mainly on the reporting efforts of other newsgathering organizations for news content.

In the early 2000s, major content creators including CNN and MSNBC were continuing the mediation role typified by existing national news media; publishing stories from news agencies such as the Associated Press or Reuters without their own editorial contributions. By 2006 there was roughly an even balance between intermediary news sites, which obtained and distributed news produced by other organizations, and news outlets that produced original content (Paterson 2006). Agencies have traditionally played

a strong gatekeeping role. News agencies typically produce stories that appear highly objective and neutral on political issues or other matters of opinion or judgment. Because they may serve hundreds or thousands of other news organizations their content must be unobjectionable to the editors of those publications and the public in general. As a result, non-mainstream ideas, opinions and interests tend to be excluded from wire service reports (Paterson 2006).

Only the largest newspapers and television networks are able to finance global newsgathering, and other news organizations rely on wire services to supplement their own local reporting. Online, the impact of news agencies is magnified as they are able to deliver their content directly to users with little or no mediation by local editors (Paterson 2006). Web portals and aggregators, which attract substantial portions of the online news audience, also rely heavily on news agencies because they generally do not produce content of their own (Bui 2010). Web portals are the most used internet news sources, and are accessed by more than half of all online news users on an average day. Portals are also particularly popular among younger users, with 68% of users ages 18-29 visiting portals (Pew Research Center 2010b). A small number of major media organizations account for a huge proportion of stories carried by portals. The 10 most popular legacy news organizations are responsible for between 73% and 93% of portals' front page stories (Bui 2010).

In 2001, major news portals (AOL, Yahoo, Nando, Lycos, Excite, and Altavista) relied on verbatim use of news agency stories for 68% of their total coverage of international events. By 2006 that number had increased to 85% (Nando and Lycos were no longer popular services by this time and excluded from the second study). Likewise,

popular U.S. and United Kingdom. legacy news media websites (MSNBC, CNN, BBC, ABC, Sky, and the New York Times) used an average of 34% verbatim news agency content for international coverage in 2001. That measure increased to 50% in 2006 with U.K. newspaper The Guardian added to the sample (Paterson 2006). The revelation is that a meager four news agencies; the Associated Press, Reuters, Agence France-Presse, and the BBC; provide most of the international coverage for the population of the U.S. and U.K. Even large newspapers and cable networks with international correspondents and bureaus used unedited wire service reports for half of their coverage.

Analysis in 2006 and 2008 showed that Google News included links to hundreds of news organizations, both major and non-major, in front page results. At the same time, Yahoo News relied on no more than six sources for all of its front page results. Yahoo News also relied much more heavily on major national news outlets for content. The ratio of major to non-major news organizations represented ranged from approximately 1:10 (2006) to 1:6 (2008) for Google, and 1:1 (2006) to 2:1 (2008) for Yahoo (Bui 2010). The concentration online of content produced by a small number of news organizations is not limited to portals and other large-scale operations: More than 99% of news stories linked to from blogs also come from legacy news media, and most originate from a small handful of outlets: The New York Times, the Washington Post, CNN, and the BBC (Project for Excellence in Journalism 2010a).

Web portals and other online news services give the appearance of choice between several, or hundreds, of news sources, but most stories originate from a major news agency. For instance, a dozen news organizations who subscribe to an agency's services may each publish the same version of the same story on their own website. An

interested user searching for information can choose which source he or she prefers to use but, knowingly or not, has no choice between multiple accounts or analyses of the same news event. The mutual reliance of news outlets on content produced by a relatively small number of legacy media organizations creates a more homogenized user experience and, to some extent, negates the advantage of choice between information sources the internet provides.

### **Online News Business Models**

In the more than 15 years since their great migration onto the internet, news organizations have failed across the board to create viable revenue models. Some have defended the lack of innovation by claiming their online operations provide less tangible benefits, such as fostering interaction that strengthens brand image and builds audience loyalty (Picard 2009). In the current market news is in high demand, but increasing consumer use is not translating into financial gain for media companies (Curley 2007).

Walter Isaacson, former managing editor of *Time*, has suggested that advertising-supported content distributed freely on the internet by news organizations is at the root of the news media industry's financial woes. Isaacson says media companies have allowed a consumer culture to develop where:

“...phone companies have accustomed kids to paying up to twenty cents when they send a text message but it seems technologically and psychologically impossible to get people to pay ten cents for a magazine, newspaper, or newscast” (Isaacson 2009).

Historically, newspapers in the U.S. have earned revenue from three sources; advertising, subscriptions, and newsstand sales. However, online news is typically

financed by advertising alone (Isaacson, 2009). Given the fact that more people now access news online than in print, it is evident that newspapers, which are responsible for a substantial portion of the news content found online, have effectively cut off two of their three revenue streams.

At the same time newspapers were launching unprofitable online ventures, innovative companies that took better advantage of the internet's potential were also springing up. Some of these firms began to bleed revenues from news organizations because they could outperform legacy media at certain functions in the online environment. Craigslist, eBay, and job listings such as Monster all but replaced newspaper classified advertising, and news aggregators such as Yahoo! News and Google News drew users and advertising dollars away from the websites of content creators (Outing 2010).

Most U.S. newspaper websites doubled their revenues over the course of the first decade of the 21st century, but online growth corresponded with decreasing profits from print newspapers. The market share of most newspaper websites also shrank as users turned to non-local news services in greater numbers (Sylvie 2008). The proliferation of free news on the web also coincides with a severe reduction in the perceived value of the content by the public. Although more people than ever before are accessing the news, most say they would not pay for it and few would be concerned if their local newspapers stopped publishing the news (Pew Research Center 2009b).

Since the emergence of the internet as a news medium, the advertising model has been the most prevalent strategy for news sites. This system has long been used to fund journalism in the U.S., first by newspapers and later by magazines, radio and television.

Essentially, advertisers pay media companies to reach audiences who are seeking news content (Carlson, 1999). Other revenue models exist, including subscription, where users pay a flat rate to access the entire content of a site; transactional, users pay based on the amount of content accessed, and bundled; where online access is included with subscription to a print product. There are also alternative sources of funding such as grants and donations. Subscription is generally regarded as the most viable alternative to advertising, but even in the face of financial losses from their online operations only about 3% of U.S. newspapers charge online subscription fees (Mensing 2007).

Most media companies moved quickly to establish internet presence for their publications and attract audiences by offering them at no cost, and since then have been largely unable to overcome the expectation by the public of free content on the Internet. Reliance on the free-to-use advertising model developed for several reasons. Legacy news organizations originally considered online news to be a promotional tool for the parent media and therefore did not charge for users to access it. The reasoning was that websites themselves served as advertisements for the physical media (Huang and Heider 2007), and readers would be directed to the more profitable print or broadcast product after viewing a sample of the content online. The harm came years later when the expectation of free news became so engrained in audiences that they were no longer willing to pay for it at all (Isaacson 2009).

Other business models for online news sites have in fact shown to be successful, though not universally so. A small number of publications have achieved online success by utilizing a subscription model, notably the Wall Street Journal Interactive Edition and Consumer Reports Online. A decade ago, when most traditional media were posting their

content online for free, each had more than 300,000 paying subscribers and were attracting thousands more each week (Carlson 1999). Audiences were shown to be willing to pay for news content that had tangible value; in this case, information and advice on business, investments, and product reviews (Kann 2009). This strategy has shown effective in other internet industries, with Apple's iTunes attracting customers who were previously downloading pirated music for free and Hulu's greater moneymaking power than online video giant YouTube due to its superior content (Lyons 2009).

Traditional news media companies have also looked to governments, nonprofit groups and wealthy patrons for support, and this model is present in the internet age as well. The Associated Press, a nonprofit cooperative; the British Broadcasting Corporation, which is government funded; and the Guardian, Britain's flagship newspaper which is owned by a trust; are examples. Some news outlets receive funding through grants (ProPublica), user membership contributions (NPR and PBS), infusions of personal wealth (Huffington Post), or venture capital (Patch). There have even been experimentations with "crowdfunded" news, where audiences choose which stories are reported by agreeing to pay for them in advance (Madrigal 2009).

Early on, newspaper executives entered into online ventures blindly without conducting market research, failed to articulate concise online business plans, and tended to sustain old practices that clearly were not suitable for the new medium (Krumsvik 2006). Between 1996 and 2005, even as their financial situations became more troubling, most newspapers did not alter their online business strategies. Although the shift to the web reduced income from sales of the print edition while increasing overhead costs, news

sites failed to search for alternative revenue in the form of online subscriptions, transactional charges, or niche products (Mensing 2007).

Adams (2008) confirmed that most newspaper managers did not develop a business plan for their online editions and even fewer conducted any type of market research prior to launch. Overall very few companies set goals, revenue or otherwise, for their operations or outlined strategies for achieving them. Also, most newspaper managers listed “Staying at the industry forefront or staying up with the times” as the prime motivator for moving their content online, ahead of generating revenue or informing the public (Adams 2008). The suggestion is that newspaper websites were developed initially as status symbols rather than business units. However, regardless of intentions, significant benefits are perceived by media companies who put their news online for free. Many managers view their websites as products still in development that will grow revenue and audience in the future, and think the benefits outweigh the potential loss of subscribers who choose to simply get the content free online. The internet is also seen as a great equalizer, which removes barriers to entry into the market and allows small or startup online news organizations to compete directly for advertisers and audiences with mainstream media powerhouses (Adams 2007).

Internet users have expressed unwillingness to pay for news online when free alternatives are available, suggesting that a sudden switch to the subscription model could cripple a news outlet (Chyi 2005). The reluctance of audiences to pay for online news has been viewed as a matter of precedent; although internet users do not pay for content it cannot be assumed they will not choose to pay in the future. If content is demanded by the public, and not freely available elsewhere, consumers will be willing to pay for it

(Herbert and Thurman 2007). Beyond the aversion users may have towards paying for previously free content, news websites risk losing advertisers, who may not consider space on a closed site as valuable as one that is publicly accessible. Also, audience growth tends to slow significantly once subscription requirements are put in place because new users are unlikely to pay for content that is unfamiliar to them (Pauwels and Weiss 2008). Although it is only a small step towards the subscription model, a significant number of news sites have implemented requirements for users to register with the service before viewing content. This practice may serve as an indication to the user of the news' value, and can allow for targeted advertising (Mensing 2007).

The coming of the internet allowed greater numbers of news producers to enter the industry while simultaneously reducing news organizations' monopolies over their local audiences. As a result the news business became much more competitive than ever before, with news organizations producing more and more content to contend for audience share and advertising dollars (Sullivan 2006). The minimal, or non-existent, costs of distributing news content online make digital publication seem like a wise choice for producers. At the same time, however, the same technologies make it easy for others to share, aggregate or otherwise distribute news content produced by professional journalists. As a result internet users can find and view news content without actually patronizing the websites or other services of the content creators (Picard 2009).

In an attempt to gain profitability and individuality in the online market, some news operations have reacted to competition by diversifying; developing highly targeted niche products or by focusing more intently on local stories (Adams 2006). Content of this sort appeals directly to audiences in certain geographical areas or those who hold

specific interests. However, newspapers in particular have failed to respond to increasing user demand for niche content and instead largely continued to produce mass audience-oriented news (Sullivan 2006). This gap in supply and demand can only exasperate newspapers' online readership crisis, potentially driving potential consumers to alternative news sources to find information on topics or issues they consider important. Sylvie (2008) suggested the possibility of traditional news organizations banding together to produce joint online news sites that would cater to individuals' taste for local, non-local and specialized content while keeping revenues within the collective. Unfortunately this may be equally challenging, as web portals and aggregators already provide users with a central online destination for accessing news from multiple sources. And, of course, these services are free to consumers.

Newspapers generally self-identify as members of a service industry; providing information and analysis to the community for the sake of the public good. Under this service model, benefit to the audience arises from the process of ongoing information gathering and analysis, which has the potential to keep individuals informed and limit the power of entities such as governments and corporations. However, in practice their business model is that of a manufacturer; producing a commodity, in this case news content, for sale to customers. Regardless of mission statements declaring informing the public to be their primary service, news organizations have sought to make content itself their primary offering, rather than the benefit to the community that can arise from reporting and analysis of events (Picard 2009). Even though it has already been shown that news is only seen as valuable when it provides real benefits to the user, mainstream news organizations have taken to competing amongst one another on the basis of quantity

and variety of content as opposed to the quality, impact or importance of their newsgathering efforts.

The current business climate of online news operations has polarized consequences for user choice. The most obvious effect is that, regardless of how sustainable the model may be, advertising-supported news websites provide an enormous boost to the amount and variety of news an individual is able to be exposed to. As the vast majority of sites are free to access, there is no reason for a user to limit him or herself to only one or several sources. People are free to pick and choose between a multitude of news sources on a story-by-story basis, unlike subscriptions (online or otherwise) that require the user to commit to a particular news outlet for days, weeks, or months at a time.

If all online news outlets converted to the subscription model, most users would likely be forced to choose the one or two organizations they most preferred and use those services exclusively. If, however, half of news websites established pay walls and the other half remained free to use, the result is less predictable. It seems likely that many users would migrate to the websites that remained free, but it is also possible that they would recognize the supposed higher value of news that required subscription fees.

The culture of free news also serves to restrict user choice, though less directly. It has been shown that revenue-hemorrhaging online operations of legacy media have contributed directly to reduced newsroom staff size and reporting power, which in turn leads to a reduction in original content produced by news outlets. Less coverage of fewer events and issues means users have fewer options to choose from, and disenfranchisement with the sub-par offerings of local news media may drive some to the

websites of national new media, web portals and aggregators where they are served a more homogenized array of content.

At the time of writing, the New York Times was preparing to roll out a pay wall on its website, including tiered subscription charges for varied levels of service. The model will allow users to view up to 20 stories per month at not cost, after which they can elect to purchase one of several unlimited access plans beginning at \$15 per month. In an attempt to encourage the continued sharing of New York Times stories on social media and blogs, stories accessed by clicking through from social media will not be counted towards the 20-story limit on free access (Peters 2011). Another ongoing development is the launch of The Daily, a news magazine-style publication available only on Apple's iPad tablet. The Daily, created by media giant News Corp. in a partnership with Apple, is available for a weekly subscription cost of \$0.99 (Horn 2011). The success of these two ventures remains to be seen.

### **Alternative Media**

The internet serves as a gateway not only to the websites of legacy news media organizations and other national news outlets, but to countless other alternative news sources as well. This increased palate of options gives users easy access to multiple accounts or analyses of events or issues, as well as news that caters to specific interests or ideologies. Although the distribution of news on the internet has led to the concentration of audiences to major national news outlets, it has also brought together smaller bands of users with specific interests who otherwise would not have had a mutual news source. Alternative media expand user choice by expanding the number of news sources and

viewpoints available online, and also encourage mainstream news organizations to expand the breadth of their coverage.

Generally, alternative media may be defined as “media production that challenges, at least implicitly, actual concentrations of media power, whatever form those concentrations may take in different locations” (Couldry 2003). Downing (2001) identifies alternative media as a means of resistance to hegemony, which therefore empowers its users and creators. These media serve individuals or groups who previously were marginalized or underrepresented by society by expanding the range of information available from the limits of the homogenous mass media, responding more quickly than the mainstream media to the public’s evolving needs, and operating outside the control of state or corporate authority. Furthermore, alternative media tend to be democratic rather than hierarchical in terms of organization. Rodriguez (2001) argues that alternative media alter traditional power relationships by enabling the producers to define their own public image rather than accepting representations that are forced upon them by the media of others. Overall, “it implies having the opportunity to create one’s own images of self and environment; it implies being able to codify one’s own identity with the signs and codes that one chooses, thereby disrupting the traditional acceptance of those imposed by outside sources; it implies becoming one’s own storyteller, regaining one’s own voice; it implies reconstructing the self-portrait of one’s own community and one’s own culture” (Rodriguez 2001).

Of course, the question of exactly what qualifies an online news outlet as alternative remains a difficult one. In one case, the website Politico was launched by former newspaper journalists to challenge the dominance of national legacy media in

coverage of politics in Washington, D.C. However, by accomplishing this goal, it has become a premier destination for politically-interested news users. Although Politico fits within the parameters of an alternative news source, it also shares some qualities of mainstream media. Because of the challenges of definition, this paper will not attempt to label individual news websites as alternative or not, except to point out that many online news outlets not associated with legacy media fulfill the functions of alternative media. For example, news sites such as the Huffington Post and Drudge Report compete with traditional news media organizations for audiences, present ideas and opinions that are counter to those found in legacy media, and offer increased user participation through blogs, commenting, and so on. They are also used as sources of news primarily by people with particular political beliefs.

The practice of journalism by alternative news outlets often differs from the standards of legacy news organizations. Significant attention has been paid to the Independent Media Center (IMC) network; a loose association of autonomous news collectives that challenge corporate media and are active in a variety of social justice issues (Downing 2003, Atton 2004, Brooten 2004). Traditional standards of journalism as practiced in the U.S. classify news stories that do not offer all sides of an issue as biased or unethical. IMCs, on the other hand, argue that corporate media are inherently biased towards maintaining the status quo, and the IMCs' reporting in fact balances out the mainstream news (Atton 2004). Being open and honest about personal opinion and conflicts of interest in regards to news reporting is considered more important than attempting to balance the facts (Brooten 2004).

Nontraditional news tend to publish larger amounts of in-depth or raw data than legacy media, which in turn attracts users who could not access that information elsewhere (Kim and Johnson 2009). Alternative news websites hold another advantage over legacy media in that they are not restricted by the obligation of serving multiple, sometimes disconnected audiences. Major news organizations simultaneously operate in two arenas, the stable and well-defined realm of traditional print and broadcast media, and the ever-changing online environment. Problems arise as efforts to adhere to established practices stall success or innovation online, while updating business and reporting practices to improve the web version may detract from the traditional primary product (Sylvie 2008). Like other online media, alternative news outlets benefit from a lack of confinement to a geographical area for distribution or physical space for production (Curran 2003).

The internet has become a primary source of news for people who do not align themselves with mainstream interests or opinions. Opponents of the United States' war in Iraq during the early 2000s were shown more likely to get news about the war online, and consider internet sources the most credible. This is likely because they could find agreeable viewpoints online and considered the web to be distanced from more patriotic, pro-war messages on television (Choi, Watt and Lynch, 2006). In another case, the British alternative news website OpenDemocracy saw a huge influx of web traffic following the September 11, 2001 World Trade Center attacks due to American audiences looking for foreign news coverage and analysis of the event (Curran 2003). It has also been shown that people who harbor racist beliefs are more likely to seek out news from alternative online sources, where racist opinions can be expressed more freely

(Melican and Dixon, 2008). Although these may be somewhat extreme examples, they illustrate how internet users are able to easily seek out specialized news from alternative online sources which they would likely not have had access to in the analog world.

Gross (2003) found that gays and lesbians, especially teenagers, are likely to turn to the internet for information and networking. Many have no personal connection with other homosexual youth, and may feel unaccepted or outcast by their communities, friends or family. On the internet however, these teenagers have been able to form an alternative social network that is gay-friendly. Interacting with one another using a variety of websites, chat rooms and message boards, many gay and lesbian teens reported that the online gay and lesbian community gave them a sense of belonging and even more cited that online community as helping them understand and accept their sexual orientation. Of course, not all alternative news media on the internet cater to users seeking inclusion. Atton (2004) notes that radical rightist organizations have also set up shop online, with websites and message boards that play host to racist or xenophobic discussion.

It is true that a website offering advice to gay and lesbian teenagers is unlikely to garner much resemblance to a site providing racist commentary, but the purpose of the two outlets is essentially the same. Both groups of users are not accepted by mainstream society, and members of each likely feel alone or out of place without others from their own opinion or orientation. Also, both groups comprise small percentages of the overall population in most parts of the country, and it would be much more difficult to meet and communicate in physical space. Online, though, they can connect with their peers who may be living across town or across the country and can interact, as if in the real world,

without fear of harassment or concern over geographic isolation. Minority groups, and the media content they produce and consume, can flourish on the internet in an “alternative public sphere” (Atton 2003) even though they may not be accepted in mainstream media or in public life.

Most alternative media are beset with challenges from the onset. Some are relatively straightforward; there may be no audience for the product or the general public may not accept the message. From a technical standpoint, lack of equipment and resources can hinder any operation, and non-professional media producers may lack the incentive to continue creating content (Rodriguez 2001). The perceived binary nature of power relationships may also serve to discredit the message of organizations and communities who utilize alternative media. Simply put, if one institution, group, or movement is strong, all other alternatives tend to be identified as weak. The common result is that mainstream media are identified as powerful, directly or indirectly, and in turn alternative media are framed as being weak (Rodriguez 2001). The fact that alternative media are judged using the standards of mass communication suggests that they will almost always be viewed as unpopular, ineffective, and irrelevant to society as a whole.

Interestingly, the greatest risks come when alternative media products surpass these initial challenges and gain some measure of power or influence. It may be encouraged that production be handed over to professionals who can create higher-quality content, or may incur political pressure or harassment if its oppositional views begin to gather momentum (Rodriguez 2001). Most important however is the issue of

identity. At some point, successful alternative media producers must make choices to actively protect their unique position and message.

Consumer mass culture feeds upon alternative cultural expression, and elements of alternative media are constantly absorbed into mainstream normalcy (Downing 2001). With time, media that was once considered radical may be diluted and grouped in with other mass culture. In 2011 the Huffington Post, which could be described as a liberal-leaning alternative news website, was acquired by AOL, whose web portal is among the top 10 U.S. news sites. In another example the social networking service Twitter was first used by individuals and groups to share and find information outside of mainstream media, but has since been adopted by national news media organizations, with journalists using Twitter to connect with their audiences and also reporting in legacy media as to what topics are “trending” on the network.

## CHAPTER 3

### AUTOMATED NEWS SERVICES

In many regards, the experience of an internet news user is guided by automated tasks; recommenders, filters and summarizers which employ computer programs to determine the content options that are presented to an individual user. These systems help users navigate the huge number of news outlets available online and the staggering amount of content they produce daily.

“Abundance, while clearly preferable to scarcity, has its own pitfall. Navigating through the intricate Web to get to a desired online destination is a daunting task, especially to inexperienced Web users. It is simply impossible for any individual to scan through all news websites, let alone thoroughly assess them and evaluate their credibility, hence the need for certain assistance” (Bui 2010).

Active intelligent agents make recommendations based on user input. Typically the user enters the attributes he or she is looking for, and their relative importance, and the system weighs the information against all the potential choices to find the best match (Waddoups and Alpert 2005). Passive intelligent agents track user behavior to make recommendations, and come in several forms. Rules-based engines follow a set of predetermined guidelines to select what content a user views; for example, if the user clicks on product *A* they will be automatically recommended product *B* regardless of earlier behavior. Individual-based filters record the behavior of individuals and use their personal click-through or purchase history to generate suggestions. Collaborative filters are the most complex passive intelligent agents. They draw from the usage data of their

entire audience or customer base to form recommendations, making comparisons between users with similar usage patterns (Waddoups and Alpert 2005).

Intelligent agents enable users to quickly and easily locate news from a wide range of sources, compiling related stories that otherwise would not have appeared together. They may also gather news stories from sources other than traditional news organizations, such as blogs, which further alters user experience. It has been suggested intelligent agents will lead to increasingly fragmented news audiences, as each individual is delivered tailored content. However, it has also been noted that most users still desire the “general scanning function” (Pavlik 2001) of news providers; they still seek out general news to learn about current events. In addition to the diet of highly-personalized niche content, the average user is still exposed to much of the same material as the rest of the audience (Pavlik 2001).

### **Aggregators**

News aggregators have become popular among internet users because of their ability to amass confounding amounts of disjointed information into a single, convenient format (O’Reilly 2007). An aggregator takes information from multiple news websites and compiles it into a new, separate website or database (Isbell 2010). Most display headlines, perhaps the first one or two sentences of stories, and links to the full stories as they appear on the content creators’ websites.

Beyond the convenience access to large amounts of news they provide, many internet users also prefer aggregators as a news source because they appear neutral and independent of news media organizations, which many assume to be biased in some way (O’Reilly 2007). They also give users the ability to instantly compare content from

competing news organizations before determining which source to use on a story by story basis, unlike traditional news media where they must watch an entire news broadcast or read an entire newspaper after making their media choice. In a sense, “you can scan the headlines of dozens of sites before deciding to go anywhere. It’s like reading TV Guide instead of channel surfing” (Palser 2005).

Another service related to aggregation is RSS, which stands for Real Simple Syndication or Rich Site Summary. RSS feeds automatically send users links to news stories via email, web browser software plug-ins, or personalized web pages (Palser 2005). As with aggregators, the user gains access to the complete version of the story without being exposed to other content, especially advertising, on the host website. Typically, users choose the specific news sources or topics they wish to subscribe to.

Most popular news aggregators use computer software running specialized algorithms to intake news content from dozens or hundreds of sources and integrate it into a single website, although others may rely on human administrators to make content decisions (Yen 2010). News aggregators take a variety of different forms but have been broadly be classified into four categories based on their functionality; feed, specialty, blog, and user-curated aggregators (Isbell 2010). Feed aggregators are the most typical, often utilize a large number of diverse sources to obtain content from, and categorize this large spectrum of material into source- or topic-specific feeds. Popular feed aggregators such as Google News usually include news headlines that link to the full stories on the original publisher’s website, and may also display an excerpt from the story or a thumbnail photograph.

Specialty aggregators draw from multiple sources to collect content relevant to the interests or geographical location of a specific audience. They may mirror feed aggregators in terms of appearance and function, but the scope of their content will be less broad and they may aggregate stories from fewer sources (Isbell 2010). An example of a location-specific specialty aggregator is Topix, which aggregates content from other news websites organized by town. Topix automatically siphons news stories from 50,000 unaffiliated websites and organizes them based on the 32,500 U.S. postal ZIP codes. The aggregator is billed as a “top 10 online newspaper destination” citing data from market research firm ComScore (About Topix n.d.), although it is not affiliated with any newspaper, nor does it generate any news content independently.

Blog aggregators, the final type of aggregator that will be discussed here, rely on the decisions of human editors and as such are not examples of intelligent agents. However, the impact on user choice is equally worthy of examination. Blog aggregators incorporate stories from other websites into a blog posting about the story or broader issue at hand. The content is incorporated into a blog entry, which may provide commentary or analysis on the story, or simply serve as an introduction. In most cases the original website is linked to from the body of the blog post (Isbell 2010). Two popular blog aggregators are The Huffington Post and Drudge Report. Both aggregate news stories from a large number of sources and post summaries or lengthy quotations on their websites. They also aggregate photographs and video in the same manner, displaying thumbnail versions of the images along with links to the originals. The posts typically include a limited amount of original text to introduce, explain or give context to the story being linked to.

User-curated aggregators serve as forums where users of the website can submit or post content from other news websites (Isbell 2010). For example, Slashdot, an aggregator of technology news, allows users to post links to stories directly and ranks them based on the feedback of other members. User-curated aggregators more closely resemble social media than true aggregators, and as such will not be dealt with in this section.

News-producing organizations decry the function of news aggregators, which they see as “piggybacking” (Yen 2010) on the labor of their professional journalists and reaping an unjust share of the reward. The primary cause of concern is the assumption that content aggregators have created:

“a corrosive move away from paying content providers for their work. Proceeds go instead to those who sell advertising and other services while aggregating and/or lifting material they did not create” (Osnos 2009).

Aggregators have been accused of directly harming the news websites they gather content from by stalling user traffic and decreasing advertising revenue (Chiou and Tucker 2010). As with traditional print and broadcast media, online news is funded largely by the sale of advertising. The aggregation process intentionally reduces the amount of time and number of page views a user is likely to expend on a particular news website. The potential result is that fewer advertisers will want to purchase space on the website in question, or the news organization will be forced to charge lower advertising rates. Even when they link to the full story in its original context, aggregators and related news feed applications allow users to bypass the original website's home page and subsequent stages of the website's page structure. Furthermore, after finishing with the

story the reader is unlikely to remain on the original website, browsing through additional stories and generating more page views which would in higher advertising revenues. Instead, users tend to immediately return to the aggregator (Yen 2010). At the same time, aggregators are themselves gaining financial success by selling advertising of their own (Yen 2010). The overall argument is that aggregators poach advertising dollars from news organizations that produce original content.

Popular aggregators further widen the gap between the content they post and the original creators when they begin to appear ahead of other news websites on search engine results. Search engine optimization, which involves choosing keywords and search terms and other processes designed to place a website at the top of results, has been effectively implemented by aggregators to the extent they may beat out the websites they borrow from (Osnos 2009). Search engines also assign greater priority to websites that are updated often as well as those that link to and are linked from a large number of other websites. Aggregators naturally fit these requirements as well. Even a simple search for the word “news” in Google lists three news aggregators among the top ten results, (Google News, Yahoo News, and Drudge Report) the rest of which are national legacy news organizations such as CNN, FOX News, and The New York Times. It should be noted as well that differentiation between web portals, search engines and aggregators has been reduced to the point where it is almost indistinguishable (Paterson 2006). The most popular web portals; Google, Yahoo and Bing; are news aggregators themselves. Aggregators make up about 27% of the most popular U.S. news sites (Project for Excellence in Journalism 2010b).

Although they are unlikely to spend an extended period of time browsing a news website following a click-through from a news aggregator or RSS feed, these users do contribute extra page views the website would not have received otherwise (Palser 2005).

A 2010 study also suggests that:

“the aggregation of news content actually complements the original content. In other words, users are more likely to be provoked to seek the original source and read further when they come across a story summarized by an aggregator, rather than being merely content with the summary” (Chiou and Tucker 2010).

In the single scholarly study conducted thus far on the relationship between news aggregators and their sources, Chiou and Tucker (2010) suggest aggregators benefit news websites by directing user traffic to the original stories. The authors based their study on a seven-week period in late 2009 and early 2010 when all Associated Press content was removed from Google News due to a licensing dispute. During this time span they identified a significant decrease in “downstream” traffic of Google News users linking through to other news websites. From this correlation it was concluded the aggregation of Associated Press content by Google News increased user traffic to websites carrying content licensed from the Associated Press. It should also be noted that although some aggregators, including Google News, offer news organizations the ability to “opt out” of the service and not have their content included, it is rare that any publication does (Park 2010). This would suggest that news outlets do in fact see some value in the audience exposure they receive from aggregators.

Despite news organizations’ repeated claims of copyright infringement no legal case regarding the intellectual property issues of aggregation has been decided in the U.S.

Several suits challenging the legality of news aggregators have been filed, but all were settled out of court (Isbell 2010). The issue of copyright infringement is an especially sensitive topic for news producers, because they themselves are obligated to borrow from copyrighted materials to report on and analyze issues and events (Bunker 2004). They also are extremely reliant on the reports of other journalists in crafting their own stories.

The right of reproduction, one of the rights provided to copyright holders, prohibits direct copying and redistribution of copyrighted works in their entirety or in part, with some exceptions. Therefore news aggregators do not have the option of copying whole news stories from other websites and re-publishing them verbatim. Derivative works, those that are based substantially on an existing copyrighted work, may not legally be created without the permission of the original copyright holder. The Copyright Act identifies a new work “consisting of editorial revisions, annotations, elaborations, or other modifications” as a derivative work (17 U.S.C. § 101 quoted in Leaffer 2005). The implication here is that news aggregators can not avoid copyright infringement simply by making minor changes to stories they post. However, factual information is not copyrightable (Leaffer 2005), so a news story that is borrowed and rewritten to remove the original author’s expressive contributions would not be an infringement (Fordham 2010). Although aggregators could conceivably re-write and publish the stories of other news organizations on their own websites, this practice is not common. It is easier, more efficient, and financially advantageous for aggregators to collect headlines of stories, and then link to the original, than it is to expend the human effort required to carefully rewrite the stories individually (Stanford, Brown and Babinski 2009).

The Copyright Act specifies that fair use of a copyrighted work for the purposes of criticism, commentary, news reporting, teaching, scholarship or research does not constitute infringement (17 U.S.C. § 107 quoted in Leaffer 2005) provided certain standards are adhered to. Generally, fair use recognizes that there are certain instances when allowing a copyright holder to hold a complete monopoly over a work would stifle literary or scientific advancement, rather than encourage it as intended (Bunker 2004). The Supreme Court has since suggested a fair use claim could be strengthened if the nature of the use is “transformative” (Campbell v. Acuff-Rose 1994). A transformative work alters the original by “repurposing the content, or infusing the content with a new expression, meaning or message” (Isbell 2010) instead of reproducing the original outright.

It has been suggested that news stories drawing from copyrighted material are almost always transformative, because the process of news reporting adds new meaning or context to the borrowed information (Bunker 2004). However, this argument is more difficult for news aggregators to make, as they generally copy headlines verbatim and link to the original story without providing any of their own content. An exception can be found with blog aggregators, which generally contribute their own analysis or commentary about the stories they link to. Feed, specialty, and user-curated aggregators can also be viewed as transformative to varying degrees, because the aggregation process drastically alters the context the stories are presented in. These aggregators bring together and organize headlines, which users can browse in ways not otherwise possible. They may also create context or new understanding by bringing together related stories from multiple sources, as well as forums for user discussion or ranking of stories (Isbell 2010).

The courts also have never decided a case regarding the copyrightability of news story headlines (Fordham 2010), which is significant because most aggregators duplicate the headlines of stories verbatim. By and large, titles of copyrighted works and short, literal phrases are not copyrightable (Isbell 2010, Leaffer 2005). Although the Copyright Act does not specifically exclude titles of works from protection, the Copyright Office has classified titles, words, and short phrases as uncopyrightable because of their “*de minimis* nature.” (Leaffer 2005). In other words, they are not substantial enough to be identified as creative works of authorship. Given a literal reading of the Copyright Act, it is likely that titles of creative works could receive copyright protection if the practice was challenged legally because as writing they should qualify for protection as literary works (Leaffer 2005). This could be a serious blow to feed aggregators in particular, as it would no longer be possible to duplicate headlines turned up by web crawlers. Instead, human editors would be required to rewrite original titles.

The hot news misappropriation doctrine has, however, been called upon several times in recent years to protect newsgathering organizations from competitors who sought to benefit from their labor. This common law tort states news organizations should have the opportunity to benefit financially from content created at their own expense, rather than see it misappropriated by their competitors (Leaffer 2005, Park 2010). If it could be proved an aggregator was directly and systemically siphoning profits from another news outlet by aggregating that organization’s own content, the hot news misappropriation doctrine would likely come into play.

## **Recommendation Engines**

People often turn to their friends or peers for recommendations when the amount of information online, or the time required to sort through it, becomes a hindrance (Kayahara and Wellman 2007). Recommendation engines take this process to a mechanical level, utilizing algorithms to compare a user's interests and usage habits with those of the audience as a whole to approximate what available content the user will be most interested receiving. Adaptive recommendation systems predict what content a particular user will like based on the individual's previous choices. They also use data gathered from other users to find common traits between seemingly different content. These recommendation engines may also at times include new or different content to judge user reaction to it (Anderson 2006).

The process of predicting a person's interests or behaviors by comparing them to other internet users is known as collaborative filtering. As the most complex intelligent agents (Waddoups and Alpert 2005), collaborative filters draws from the lifetime purchase history of every customer, not just the transaction at hand, to present users with recommendations they feel they would have chosen of their own accord (Riedl and Konstan 2002). Collaborative filtering is perhaps the most powerful challenger to the gatekeeper role of news organizations online. It is true that the choices of individuals are still influenced by outside sources, but the recommendations are generated democratically by the public rather than by a news outlet.

There are also a variety of other recommendation systems that do not rely collaborative filtering, but engage with the user in a similar way. Manual recommenders are managed by a human editor who chooses what stories will be recommended. These

are not personalized to individual users and may be listed under “editor’s picks” or similar headings. Searchable databases organize content by subheadings that allow the user to browse by specific interests or topics, encountering groupings of articles editors feel are useful together. Statistical summarization is also commonly used on news websites. This type of recommendation system generates lists of popular stories based on criteria such as “most read”, “most commented”, “most shared”, and so on (Riedl and Konstan 2002).

Users engage a recommendation engine with inputs; the means by which they express their preferences. Explicit inputs such as ratings, keywords, or declared interests are actively solicited from, and entered by, the user. Implicit inputs are drawn from the user’s interaction with the website, such as purchase history and site navigation (Riedl and Konstan 2002). The process of making suggestions based on information collected from users, instead of from the content itself, separates recommenders from other types of filtration and categorization. Building a recommendation engine is therefore incredibly difficult because, in addition to the huge number of factors that can be considered, the connections between a person’s media choices are not necessarily predictable (Grossman 2010). To be effective, recommenders must be based on solid initial assumptions about user behavior, gather as much data as possible, and adapt quickly. Netflix, one of the most successful recommendation engine implementers, had compiled more than 100 million movie rankings with its proprietary Cinematch recommender by 2006 (Grossman 2010). And data, if interpreted properly, is money. In a retail environment, recommendation systems have been shown to generate between 10% and 30% of total online sales. When Blockbuster licensed the ChoiceStream recommender to compete

with Netflix for online rentals, customers doubled the number of movies on their rental queues (Schonfeld 2007).

The first web-based recommendation engine ever developed, a prototype called GroupLens, was unveiled in 1993. The program monitored user ratings of news articles and, once the user had rated several articles, recommended other articles that matched the user's preferences. The developers reported that users were three to four times more likely to read an articles that was specifically recommended to them than one that was not. MovieLens, a movie recommender that built upon the functionality GroupLens, multiplied the accuracy and scope of recommendations by grouping users with similar interests. Users were grouped with their "nearest neighbors"; other users who rated the same films similarly. Recommendations were then made by cross-referencing the rankings assigned to films by other members of the group. Therefore, MovieLens was more likely to recommend a movie to a user if that title had received high rankings from the user's peers (Riedl and Konstan 2002). Even at this early state in the development of recommendation technology, user decisions were already being heavily influenced by the choices of other individuals.

Recommenders may be considered by users to be endorsements of the credibility of news, because the engines appear unbiased and lacking the intent to persuade audiences. The ranking of a story by a recommendation engine may also suggest to users that it is particularly credible or important. This may skew the audience's perception of how significant the story is, but at the same time could encourage users who would otherwise be uninterested in the topic or event to investigate (Thorson 2008).

Even within the context of legacy news media websites, news recommendation engines have the potential to alter the content users are exposed to, because recommender rankings differ from the display priority assigned to stories by human editors. Recommender results also do not mirror the usage habits of most users. Generally, news organizations assign highest priority to the most recent stories. Recommendation engines, however, may recognize stories that gain popularity hours or days after publication. This is because stories on certain topics, such as opinion and business analysis, remain relevant for extended periods of time and will continue to interest readers. Other stories, such as sports results, may be extremely popular for a short amount of time but quickly become irrelevant and drop from the rankings. Counter-intuitive articles, those that contradict the beliefs of average readers, tend to be ranked significantly higher by recommendation engines than by human editors as well, presumably because users may interpret the listing of a story by a recommender as a public endorsement of the information. (Thorson 2008).

The main criticism of recommenders is that they narrow the scope of information users are exposed to by filtering out choices that don't fall within the parameters of the users' mathematically-generated preferences. In an unfiltered media environment, a user would encounter new content that fell outside their existing tastes and have the potential to expand their interests into new areas. Supporters, however, point out that that recommenders are many times more efficient in directing users to new content and information; they are designed to create new connections for the user and suggest choices that would otherwise go unnoticed (Riedl and Konstan 2002).

## **Search Engines**

An increasing number of people use the internet to find answers to specific questions, as opposed to general browsing. At the same time greater percentages of U.S. adults are gaining access to the internet, the ratio of users searching for specific information is growing. The new mass audience is not interested in experiencing the web as a mass medium, rather they tend to seek specialized or niche content (Howard and Massanari 2007).

The act of searching for information on the internet is not limited to the use of search engines (Howard and Massanari 2007). Users actively search in a variety of other ways, such as by browsing the websites of news organizations, consulting aggregators or feeds, and so on. Search engines are, however, the most popular and efficient search tools. Importantly, two thirds of internet users report using search engines to find news on specific subjects (Pew Research Center 2010a). Thus, the functionality of search engines plays an important role in the mediation of news content made available to users. Information discrimination or search engine bias are the result of mechanical computation, but the manner in which news content is ranked and displayed can have social effects (Bui 2010).

Webmasters can submit their website URLs for inclusion in search engine results manually, but this process does not guarantee placement. Indexing by a web crawler may still be needed for inclusion in search results, and is certainly required for the website to receive a high ranking (Bar-Ilan 2007). Web crawlers, sometimes called spiders, are programs that automatically map websites to generate a pool of data from which search results are drawn. Crawlers work by following hyperlinks from one page to the next, so

websites that contain a large number of links or are linked to from many other locations are more likely to be indexed by the crawler (Vaughan and Zhang 2007). As web crawlers are proprietary software, their exact functionality, and therefore the results of the associated search engine, will naturally differ.

Search engines index websites in different ways, with some favoring certain types of websites or those from particular countries. U.S. websites are significantly more likely to be covered by the major international search engines (Google, Yahoo, MSN). More than 91% of U.S. internet domain names are included, compared to less than 75% of Chinese domains. Academic websites receive exceptionally strong coverage by search engines. Google in particular indexes more sites than other major search engines: For example, it's coverage of Chinese websites exceeds that of Yahoo! China (Vaughan and Zhang 2007).

Most search engines weigh the popularity of websites heavily when ranking search results. In general this is a safe assumption, as a popular website can be expected to be satisfying the many people who choose to access it. Algorithms incorporate hundreds of ranking factors when crafting results. Ranking factors vary between services, with some made public to website developers and others guarded to protect the integrity of the service (SEOMoz 2010).

Yahoo's published ranking factors include the number of third-party links to the website, page content, updates to the site index, and the testing of new versions of the site. Bing suggests webmasters include likely search terms within the page text, keep the size of pages (in kilobytes) small, and ensure that all pages can be accessed by a text link. Google recommends web developers match their site content closely to its description

and search terms, construct a hierarchal page structure with static text links to all pages, and limit the number of links per page to fewer than 100 (SEOMoz 2010).

Search engines rate websites with a logical page structure more highly, under the assumption these sites will prove more useful to searchers. Also, crawlers do not always index every page of a website, instead following internal links from the home page through to the main subsections of the site. A well-designed link structure will allow crawlers (as well as human users) to access the majority of the site by following only a few links. Websites that are linked to from a variety of other sources are deemed useful or popular, thus boosting the site's search ranking. Links, both inbound and outbound, also help crawlers determine what the website is about (Bivings Group 2008a).

Research in human decision making has suggested that people do not always consider all options or outcomes, even when faced with relatively simple choices, due to the amount of time or mental effort that would be required. On the web, as in other situations, people tend to avoid complex decision making in favor of simple choices. The amount of information available makes systematic searching challenging, so users instead use search engines in a heuristic manner; reliant on trial and error as well as intuition to find the information desired. (Wirth, Böcking, Karnowski and von Pape 2007).

Experienced internet users may be accustomed to search engine results beyond the first page not accurately matching the search term, and therefore may be less likely to navigate beyond the first page of results. Inexperienced internet users are more likely to consciously consider search engine results, resulting in higher information gain than experienced users. However, these users are also rely more heavily on the relative position of results on the page; favoring top results more strongly. When a search engine

query turns up no results, or results that are entirely inaccurate, users tend to give up the search altogether (Wirth et al. 2007).

All the major U.S. search engines; Google, Yahoo, MSN, and recent addition Bing, respond to queries with an initial list of 10 results. Subsequent results are viewed by clicking through to the next web page. Results are displayed as the linked website's title along with a brief site description or abstract. The first result is located close to the top of the page, generally directly underneath the search text box, and the following results appear in descending vertical order.

Much of what is known about search engine user behavior comes from analysis of data including search logs and click-through rates. Other approaches include eye tracking, where researchers monitor eye movements as the user scans the page to determine which results receive priority (Pan, Hembrooke, Joachims, Lorigo, Gay and Granka 2007). Multiple empirical studies have shown the majority of search engine users view only the first page of results, and many focus on the top three results (Bar-Ilan 2007). When faced with the task of gathering information on a given topic using a search engine, the average user views the first 1.4 pages of search results and clicks on 2.2 result links. The average total time spent is 99 seconds (Wirth et al. 2007). For simpler searches, even less time and effort are expended.

A major problem in evaluating search engine user behavior is determining why users normally rely on top-ranked results; usage statistics from real-world use do not explain if the operator chooses a top-ranked result out of convenience because it is at the top of the page, because the position implies to the user that the first result is the best, or because the user has actively evaluated all the options and judged the first result to be the

best (in which case, the search engine would be extremely efficient and intuitive). Also, a savvy internet user who is experienced in searching with Google will be accustomed to locating the desired results on the first attempt, and may naturally trust that, given the proper inputs, the best result will be ranked among the first (Pan et al. 2007).

Working from earlier reports indicating the two top-ranked websites in search engine results garner the most attention from users, and that the first result is most likely to be clicked on, Cornell University researchers devised an experiment where subjects searching for information in Google received scrambled results; lower-ranked results were occasionally placed in higher positions on the page, and top results were sometimes dropped to lower positions. Subjects who unknowingly were presented with the top 10 search results in reversed order were 20% less likely to find the information they were looking for. Altering the ranking of results caused subjects to spend more time reading site descriptions, suggesting the absence of the “best” choice (according to Google) meant users had to consider the remaining options more closely to determine which was most appropriate. However, when the “best” result was dropped to the number two position, subjects continued to click on the result at the top of the page about 75% of the time, indicating relative position is highly influential (Pan et al. 2007).

As search engines have become the primary method of finding information on the internet, they hold a great deal of power; the inclusion and ranking of a website in search engine results can mean the difference between success and utter obscurity. The importance of appearing among the top results has led to search engine optimization (SEO) practices by website administrators (Bar-Ilan 2007). Search engine optimization relies largely on the search terms or phrases users enter when searching for information.

The process involves identifying the queries a user is likely to enter when searching for specific content, then tailoring website content and meta tags to mirror those words or phrases as closely as possible. Keywords can be placed in web page titles, which are visible when a person navigates to the page, or in meta tags, which are not visible. In addition to tags, modern search engines will generally scan the text of the website's content as well (Bivings Group 2008a).

Another component of search engine optimization is link building, which involves creating as many links to a website as possible. The links may be internal, such as linking back to the website's home page from other pages within the site, or external, originating from other websites. A large number of links pointing to a single website, and a hierarchal link structure within the site itself, are favored by web crawlers because they are presumed to be both popular and useful (Vaughan and Zhang 2007).

In some cases, website administrators or other individuals take link building to the extreme in a process known as "Google bombing" (Bar-Ilan 2007). A Google bomb is created when links are designed to intentionally bias search engine results in favor of a particular website that would not otherwise be highly ranked. The process requires creating an enormous number of links to the website, which eventually outweigh other factors considered by the search algorithm, negating the fact that the site may be unpopular or a poor match for the given search term. Google bombing can be initiated by webs administrators trying to bring traffic to their own website, or can be carried out by other individuals interested in driving users to a particular result. It can also be used to intentionally bury an otherwise popular website further down in search results (Bar-Ilan 2007).

Google bombs have been used to carry out a variety of hoaxes, as well as to replace government or corporate websites with alternative messages in search results. Bloggers are strongly involved, and in some cases dependant on, Google bombing. Their postings over time naturally create a huge quantity of internal links, and “linkbacks,” created when readers share and re-post entries, add to the tally. The large number of active bloggers on any given topic means individuals have a high stake in maintaining visibility in search results. Major search engines are believed to have responded to the phenomenon by changing the ways they weigh the various criteria for ranking results. Google itself has acknowledged its algorithms have been altered to minimize the impact of Google bombing. Still, some bombs have continued to remain effective for months or years (Bar-Ilan 2007).

## CHAPTER 4

### EMERGING NEWS PLATFORMS

In January 2011, The Orange County (Calif.) Register posted a new record, with nearly 25% of monthly traffic to its online editions coming from mobile devices; including its mobile website, smartphone applications, iPad application. The milestone was largely attributed to the newspaper's coverage of a single event. Newsroom staff sent out text message alerts to subscribers and also posted links to the story on Twitter and Facebook. The urgency of the news (a major traffic crash) and the interest it garnered led to the story being shared about 475 times on Facebook alone, resulting to thousands of users clicking through to the full story on the Register's website (Kiesow 2011c).

This example illustrates how new media platforms, particularly social media and mobile internet, are providing new means for news organizations to reach their audiences as well as new tools for users to access the news. And the changes are not limited to these two platforms, as journalists have been quick to adopt new and emerging media for reporting and publishing purposes (Picard 2009).

Emerging media have such promise for diluting the gatekeeping and mediation role of media organizations that adoption by news agencies and national legacy media has led to concerns from news organizations that their markets will be undercut if readers receive news directly from the source without patronizing the website of their local newspaper or broadcaster (Myers 2010). To some extent these fears have been realized, as social media and mobile internet have further boosted the dominance of the most popular national news outlets, but the user experience is quite different than that of standard news websites.

## **Social Media**

About half of people active on social networking sites use those services to find news (Project for Excellence in Journalism 2010b). Social media warrant their own discussion separate from online news in general, as their functionality strongly differentiates them from other internet news platforms. The news content made available on social media varies from other news outlets as well. Stories popular on social media sites often differ from the most popular stories on news organization websites, vary from one social network to the next, and are more likely to concentrate on topics that have not been widely addressed in the mainstream media. The news cycle is also greatly accelerated by social media. Stories spread and gain peak audiences within a matter of hours within social networks, but are soon forgotten. On Twitter only 5% of top stories hold their position for more than a week, and most disappear within 24 hours (Project for Excellence in Journalism 2010a). However, even though usage habits vary between social media and other online news platforms, national legacy media organizations are still favored as sources of news content within social networks (Project for Excellence in Journalism 2010a). Individual stories may differ in popularity from platform to platform, but the same small number of major news outlets remain responsible for the majority of content.

Although large numbers of users find news content through social media, few actively do so as part of their daily news consumption. Less than 10% of Facebook and Twitter users report using those networks to get news on a typical day (Pew Research Center 2010a). Most “new” media technologies currently serve 20% or (sometimes significantly) less of a news organization’s total audience. This is because new platforms

often launch, peak and fade from popularity in relatively short periods of time, and users adopt new media at different rates. Because their functions are so specialized, many platforms such as Twitter are simply not attractive to many individuals who do not find them useful and have a variety of other options readily available for digital news service (Picard 2009). The limited use of social media as news sources contrast with the increasingly high priority news organizations place on them. For example, the top 100 newspapers in the U. S. based on circulation maintain a combined 300 active Twitter accounts, each of which posts an average of 11 messages (or “tweets”) per day (Bivings Group 2009). A significant number of these newspapers also have their own social networking tools built into their websites (Bivings Group 2008b).

Social media now play a role in news reporting as well as distribution. Associated Press journalists are assigned to monitor social media to identify information sources as well as current trends. The news agency maintains accounts on a variety of social networks to help drive users to affiliate websites, and has created a variety of services designed to deliver specialized content directly to users via social media (Myers 2010). In 2010, BBC journalists were told to begin using social media as primary information sources. Twitter and RSS feeds are expected to become sources for BBC reports, with journalists and editors aggregating postings and incorporating them into stories with attribution to the original poster. The BBC also hopes to better utilize social media and the comment functionality of its own websites to gain feedback about stories and better understand its audience (Bunz 2010).

U.K. newspaper The Independent is one of several news operations that uses social media to target niche audiences directly, rather than maintaining a homogenous

presence on the networks. On Facebook, the newspaper operates a variety of pages and feeds, including topic-specific pages and personal accounts of individual correspondents and commentators. Facebook users who click the “Like” button (Facebook’s version of subscribing to a feed) appearing in a story on The Independent’s website are connected to a hidden Facebook page, which is populated with topic- or author-specific stories by an RSS feed. These postings in turn appear on the user’s Facebook home page. The process ensures subscribers will receive only the types of news they are most interested in, resulting in higher click-through rates and decreasing the possibility that people will cancel their subscription to the feed or ignore postings they find uninteresting or irrelevant (Kiesow 2011a).

Targeting interested users directly also helps boost visibility of a news outlet’s postings within the social network. Facebook utilizes an intelligent agent called EdgeRank to populate users’ feeds with content posted by their friends and other pages they have “Liked”. The ranking system calculates inclusion and placement of postings in feeds by weighing content type, date and time of posting, the users’ history of engagement with content from the same source, and other people’s engagement with the posting. Users are more likely to engage; click through, comment on, or share; with content that is targeted to their particular interests. This process ensures future postings from news outlet will appear prominently in the individual’s feed, and raises the ranking of the original post within the feeds of other users. The system creates a “virtuous cycle” (Kiesow 2011a) where user engagement expands the size of the audience, which in turn engages with the content even more.

Each time a person shares a story or link on Facebook, it appears in the news feed of that individual's friends. The content spreads virally; if 100 users with an average of 100 friends apiece share the link, the potential is created for 10,000 impressions, and so on. Not all of these other users will choose to click through to the full story, but some will. Furthermore, stories that are shared by multiple friends may appear more prominently within an individual's feed. Whether they choose to click through and view the story in its entirety or not, the users are being exposed to news stories they otherwise would not be. Most importantly, the news Facebook users are exposed to is directly determined by the media choices of their friends, whose postings they view, and those of the online community as a whole, which influences rankings.

Inroads into direct communication between journalists and consumers have also been made using social media. For example, Associated Press editors have at times responded directly to via Twitter to answer reader questions about ongoing events (Myers 2010). In this way, users have the ability to receive information they likely could not have found otherwise: Until they pose the question directly to the news organization, the information is not available. The value of social media lies not just in their ability to inform the public but also in facilitating two-way communication between journalists and audiences, allowing newsmakers to respond directly to audience questions, concerns, and suggestions. This sharing of information and experiences creates type of "collective wisdom" online (Skoler 2009).

### **Mobile Internet**

The mobile phone long ago stopped being simply a phone and became a "mobile device" through the integration of communication and multimedia functions (Westlund

2008). Although mobile phones have been used for news distribution since their introduction; making use of text message alerts, multimedia messaging and a variety of other value-added services; the current generation of smartphones offers access to news that rivals or matches the connectivity provided by personal computers. Smartphones provide full internet access, photo-realistic displays, broadband data transfer, powerful applications, and often touchscreen operation (Dean, Hemmendinger, Knag, Outing, Seaton and Wirfs-Brock 2010). They are small in size, constantly within reach of the user, and can be continually updated with current information (McCombs 2011). There is even the potential for users to receive hyperlocal news updates, or be directed to search engine or aggregator results, based on the location of their GPS-enabled devices (Wirfs-Brock 2010).

Web-enabled mobile devices also benefit news-interested users by providing constant access to the internet, allowing them to access news regardless of time or location, and hold an advantage over desktop or laptop computers in their small size and portability (Outing 2010). A mobile phone is the one internet-enabled device that a user can carry at all times, and most users do just that. People use their phones constantly and have the ability to access news in any number of locations and situations that would not be practical otherwise. From a content production standpoint, mainstream news outlets may solicit photos, videos, or text from mobile phone users for the purposes of their own news coverage. Although this process may be described as citizen journalism, the media organizations continue to function in their traditional role as gatekeepers by choosing which material will be published and in what context (Gordon 2007).

Of course, the functionality of a mobile phone does not guarantee the user will take advantage of its capabilities. Some may use their smartphones primarily to browse for news and other information online or through applications, while others may choose to ignore those capabilities altogether. Some people choose not to access news content, or any online material, on their mobile device because they feel they have adequate internet access from their personal computer, that they receive enough news from other sources, or they may simply prefer to use their mobile device for voice calls only (Westlund 2008). About one third of mobile phone owners use their phones to access news (Pew Research Center 2010b), although less than 10% get mobile news on an average day (Pew Research Center 2010a). Still, the rate of adoption of smartphones is higher than any previous news media technology (Dean et al. 2010). Mobile news usage has been associated most strongly with two lifestyle groups; people who are constantly “on the go”, spending a large portion of their day away from home; and employees who work long hours or travel for their job often (Westlund 2008).

The rise of the mobile phone as a news platform is an ongoing phenomenon. In the mid-2000s, text messaging was the most technology the average consumer phone was likely to be equipped with, early generation BlackBerry and similar devices functioned much like personal data assistants (PDAs) with the addition of voice service, and the mobile web was in its early days of construction (Warren 2010). The iPhone, launched in 2007, set the standard for smartphones to come and was the first mobile device to take full advantage of touchscreen technology. Developments such as touchscreen technology have played a vital role in the advancement of smartphones, but the single most important factor in their proliferation is the continued expansion and enhancement of mobile

broadband service. Mobile web browsing, video streaming, and other functions require large amounts of data, and faster download speeds lead to a better user experience (Warren 2010). Mobile news applications and websites are as dependant as any others in terms of data usage, especially streaming video reports and applications that automatically download current stories and photos. The convenience of mobile broadband helped to nurture the capabilities of the modern smartphone. These devices serve the full range of two-way communication methods (Warren 2010); voice, video conferencing, text messaging, multimedia messaging, email, and others; while simultaneously granting full access to the web, social media, and other services.

The focus of the mobile device manufacturers and service providers is on the development and enhancement of smartphones such as the popular BlackBerry, iPhone and Android models. These high-end devices represented 34% of phones sold in the U.S. during the first quarter of 2010, an approximately 100% increase in sales from the previous year. While smartphone sales continue to climb, the often-overlooked truth is that a strong majority of Americans still use “feature” phones. The term was coined to describe mobile phones that are not smartphones; namely those that do not run applications or offer full internet access. Many popular feature designs feature a full QWERTY keyboard, allowing for easy text messaging and emulating the smartphone design while bypassing the complicated applications, high price tag, and data plan costs (Fusfeld 2010). Many consumers shirk at the added costs of smartphone usage fees. Mandatory unlimited-use data plans required for most smartphone users amount to about \$360 per year, per device. That is in addition to standard voice and text messaging

charges; quite a price to pay considering the majority of smartphone users do not even take full advantage of the services they are paying for.

Although a full 74% of mobile phone users own feature phones, most news organizations and other media companies have focused their efforts on developing applications, websites and other services specifically for smartphones. Smartphone ownership is steadily increasing, but it will be years before feature phones are overtaken as the prominent device. In the meanwhile, news organizations need to find ways of reaching feature phone users if they hope to engage their potential mobile audience. A small number of service providers have introduced text-based news and other limited-function applications for feature phones (Kiesow 2011b). These users who can not access the full internet are unlikely to rely on their phones for news, and those who do have limited search and browsing capability. More likely than not they will rely on headline feeds or subscription services to find stories.

News organizations did not address the unique attributes and advantages of the internet when transitioning to online means of news delivery. Instead, online news content tended to resemble a print and broadcast news format. Newspapers republished stories from their print edition word for word on their websites, and national news magazines and television programs primarily used the internet for promoting their existing product rather than a news medium in itself. Likewise, in the move from online to mobile many news organizations have not immediately taken full advantage of mobile phone capabilities when creating content (Outing 2010). It is simpler, and in the short run probably cheaper, for news organizations to duplicate their online content into mobile applications or mobile websites.

News organizations have also been slow to embrace the increased potential for two-way communication with audiences mobile devices provide. Mobile news services tend to be much less interactive than other online news, with most mobile web sites and news applications not allowing user comments on stories (Dean et al. 2010). Especially in times of crisis, mobile phone users themselves have the potential to become news gatherers and distributors. Witnesses to an event can not only relay information through normal phone calls, they can transmit brief written accounts to friends through text messages or to a universal audience through services like Twitter. They can also capture digital photographs and video that can instantly be posted and shared online. These actions have the potential to contribute directly to the coverage of professional journalists, and in some cases may “scoop” the mainstream media altogether. Mobile newsgathering by amateurs can provide images and accounts of events that would not be publicly available otherwise, and in extreme situations can also prevent news blackouts or censorship (Gordon 2007). The trend is reversing, but many news organizations remain slow to recognize the potential for mobile interactivity and commentary. Newspapers, for example, have functioned as catalysts for public discussion since their earliest days, and even facilitate two-way communication and debate through their editorial pages and letters to the editor. However, simple interactive features such as story comments or discussion boards were slow to arrive to news websites, and remain strikingly absent in the current move into mobile delivery (Outing 2010).

It has been noted that the size of a smartphone screen does not necessarily inhibit the use of the device for news, although it presents new challenges for design and presentation of applications and mobile websites (Dean et al. 2010). It appears, however,

that the already-short attention span of internet news users has been narrowed even further by mobile devices. In a 2010 survey of college students' usage of smartphones, 56% read less than the first three paragraphs of a story when viewing news online, and 72% read less than 25% of the story. When viewing news videos online, 79% watched less than one minute of footage (Dean 2010). About 77% reported using their smartphone to view news regularly which is approximately double the national average for all adult mobile phone users (Pew Research Center 2010b).

The dominance of major national news organizations has also been replicated on the mobile platform. The most common means of viewing news content on a smartphone is by reading articles on a specific media organization's mobile website or branded application. More than half of users also report browsing multiple sources and accessing news aggregators, and a further 49% find news with search engines. A relatively small number listen to audio news programs or find news using Twitter (Dean 2010). The suggestion here is that major legacy media brands (New York Times, CNN, etc.) continue to hold sway over smartphone users, but a slim majority took greater advantage of the connectivity their mobile devices provided by accessing multiple websites or applications and actively searching for news stories.

## CHAPTER 5

### CONCLUSION

The move to online distribution of news eliminated almost all of the restrictions that previously hindered audiences. The time element of news consumption was altered by the development of the 24-hour news cycle, with the capability for instantaneous publication replacing newspaper publication deadlines and television newscast schedules. Similarly, time and space constraints limiting the quantity of news content in the analog world were removed. Print media are physically limited in size, and broadcasting is dependant on the fixed number of available channels and number of hours in the day. The internet, however, can effectively carry an infinite amount of content. Geographical barriers to access were also dissolved, giving individuals equal access to local and non-local news outlets. Finally, the advertising revenue model favored by most news websites means users can access news content for free.

The expansion of news media options is a direct result of the growth of online news distribution. The connectivity of the internet provides users equal access to local, national and global news organizations with the click of a mouse, with most of these news outlets offering their content at no cost. Mainstream and underground or niche content is also available side by side for the first time. The costs of digital distribution are incredibly low, allowing small, upstart, or alternative news organizations more equal access to mass audiences. Also, web applications help users easily find and access the information desired.

Online audiences are now free to access unlimited amounts of up-to-date news, from the sources of their choosing, at any time of day, from any location, and without

payment or commitment of any kind. What's more, the characteristics of the internet allow for a more rich user experience. Customization features allow users to receive news tailored to their personal preferences, and multimedia convergence allows information to be presented in the optimal format. Hypertextuality alters the context and scope of news stories by opening connections to information elsewhere on the internet, and interactivity greatly enhances the ability to actively seek out the news.

The above conditions paint a picture of the internet as liberating to news audiences, giving users seemingly unlimited content choices and complete control over their news consumption. But, of course, it has already been shown that the online experience of the typical user is far removed from this idealized view. In practice, most visit only a small number of news websites and primarily favor those of major media brands. The top 20 most popular news sites alone account for one half of overall user traffic. This trend shows indications of becoming more extreme; most legacy media organizations continue to lose their audiences as people adopt the internet as their primary news source but do not maintain any loyalty to the websites of their local news outlets.

The amount of news and information available online is too overwhelming for users to effectively engage with it. Instead, people minimize their content options and make choices based on habit rather than active consideration of the available sources. Internet news users also show the propensity to selectively expose themselves to news content that agrees with their existing opinions, negating any benefit that could be drawn from the diversity of information available elsewhere.

At the same time, it has been shown that information diversity in online news has been steadily decreasing. A relatively small number of national news organizations are responsible for creating a large percentage of the news content available online, and the most popular news websites rely largely, or entirely, on a handful of legacy news media and agencies. The content of news agencies and national legacy media is greatly overrepresented on aggregators, web portals and even the websites of many smaller or local news outlets. This is primarily because many online news organizations are not content creators themselves. Web portals and aggregators in particular, which happen to rank among the most popular sources of news, are entirely dependant on news content produced by the journalists of other organizations. As these services seek to appeal to the largest possible audience, news agencies, cable news networks and a small handful of newspapers are responsible for most of the stories made available. The progression to news delivery via mobile internet is likewise marked by audiences' over-reliance on major media brands and failure to make use of the available capabilities to actively search for specific news or information.

Local news organizations, meanwhile, are also adopting larger amounts of news agency content to compensate for their reduced reporting power. Internet news audiences, already dependant on the websites of major media brands, may become even further concentrated as the content creation abilities of local newspapers and other newsgathering organizations are diminished due to revenue losses that have been attributed to the availability of free news online. Widespread adherence to the advertising model as a means for supporting online journalism does increase the content choices available to users, but most take only partial advantage of the opportunity.

Importantly, the content made available to internet news users is increasingly crowd-driven. Search engines, recommendation engines, and social media all cause an individual's exposure to news stories to mirror that of his or her peers, or the online audience in general. This is a departure from the traditional notion of media organizations as gatekeepers, where the decisions and actions of media professionals largely determine what information their audiences will receive. While users may attempt to actively make their own content choices, or believe they are doing so, their online experience is shaped by the preferences of other people. Of course, this shift in gatekeeping control from journalists to audiences does hold advantages for the public, as news media choices may come to mirror the collective wisdom of the public as a whole rather than that of media professionals.

Search engines rely heavily on a website's popularity, as determined by usage and linking, when ranking search results, so a search for a particular news story or topic will generally yield the source most used by other people. Recommendation engines direct users to news they are likely to find useful or interesting, and may otherwise not have been aware of. Again, however, patterns of usage by others strongly influence the results. Social media are perhaps the most directly crowd-driven sources of news. Within social networks, users are presented with news stories purposefully shared by their friends or peers, and the sharing of a story by multiple friends raises that story's prominence and visibility. User engagement with the content, and the number of users exposed to the story, increase in turn.

The intent of this analysis was not to reach any authoritative conclusion as to whether the nature of online news distribution is either user-empowering or constraining.

This is because, speaking from a general point of view, it is clear that changes within the news industry alternately expand and restrict the content choices of internet users. Still, it would be an oversimplification to say that organizational and technological influences are neutral in their effects on user choice, as the extent and manner in which users are impacted by these factors can vary so greatly from person to person. The internet holds great promise as a news medium, but it remains the task of each individual user to take advantage of the internet's capabilities if content choices are to be truly democratized. It is possible the increasingly computer- and internet-savvy population will, over time, begin to realize the power of choice at their fingertips.

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