Creative Destruction: An Exploratory Look at News on the Internet

A Report from the Joan Shorenstein Center on the Press, Politics and Public Policy

August 2007

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A report from the Joan Shorenstein Center on the Press, Politics and Public Policy,
John F. Kennedy School of Government, Harvard University

Prepared by Thomas E. Patterson, Bradlee Professor of Government and the Press, John F. Kennedy
School of Government, Harvard University

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Executive Summary

This report examines trends in Internet-based news traffic for the purpose of peering into the future of news in America. In light of the continuing migration of Americans to online news, the evolving nature of Web technology, and the limits of our survey of websites, our assessments are necessarily speculative. Nevertheless, our examination of traffic to 160 news-based websites over a yearlong period revealed noteworthy patterns. The websites of national "brand-name" newspapers are growing, whereas those of many local papers are not. The sites of national "brand-name" television networks are also experiencing increased traffic, as are those of local television and radio stations. However, sites connected to traditional news organizations are growing more slowly than those of the major nontraditional news disseminators, including aggregators, bloggers, and search engines and service providers.

Our evidence suggests that the Internet is redistributing the news audience in a way that is pressuring some traditional news organizations. Product substitution through the Web is particularly threatening to the print media, whose initial advantage as a "first mover" has all but disappeared. The Internet is also a larger threat to local news organizations than to those that are nationally known. Because the Web reduces the influence of geography on people's choice of a news source, it inherently favors "brand names"—those relatively few news organizations that readily come to mind to Americans everywhere when they go to the Internet for news.

Although the sites of nontraditional news organizations are a threat to traditional news organizations, the latter have strengths they can leverage on the Web. Local news organizations are "brand names" within their communities, which can be used to their advantage. Their offline reach can also be used to drive traffic to their sites. Most important, they have a product—the news—that people want. Ironically, some news organizations do not feature the day's news prominently on their websites, forgoing their natural advantage.

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In 1963, the television networks plunged into the news business in a serious way. They expanded their nightly newscasts to 30 minutes and hired the correspondents and film crews necessary to produce picture-based news. Before then, they had broadcast the news largely in the same style as radio.

The new format quickly attracted viewers, with devastating consequences for afternoon newspapers. Most Americans preferred to get their news at the end of the workday, and the afternoon paper was the medium of choice. When television launched its reformatted newscasts, there were 1,400 afternoon dailies and fewer than 400 morning papers. But as the nightly TV news audience grew, the circulation of afternoon newspapers shrank. Within two decades, their circulation had plunged below that of morning papers.[1] Meanwhile, the nightly news was flourishing. At peak, 80 percent of dinner-hour viewers were watching the evening news.

Broadcast television's ratings triumph was short lived, however. As cable television penetrated the market in the 1980s, the nightly newscasts began losing their audience. By 2000, the nightly news was attracting slightly more than 30 million viewers, down from nearly 55 million in 1980. Newspaper circulation also declined in the 1980s and 1990s, falling by 10 percent. In the same period, cable television's news audience increased steadily. By 2001, the combined ratings points of cable news programs had surpassed those of broadcast TV news.[2]

Cable news is now losing its audience. In 2006 its daytime ratings dropped by 11 percent while its prime time news audience fell by 12 percent.[3] The process that the economist Joseph Schumpeter labeled "creative destruction" is once again reshaping the news system. This time, the technological disruption is Internet-based news. As online use has increased, the audiences of older media have declined. In the past year alone, according to a Project for Excellence in Journalism study, newspaper circulation has fallen by 3 percent, broadcast news has lost a million viewers, and local TV news ratings have dropped by more than 5 percent.[4]

If the losers in the Internet revolution are easily identified, the winners are less clear. Unlike the broadcast revolution, which propelled ABC, CBS, and NBC news at the expense of the afternoon papers, and the cable revolution, which advanced CNN, MSNBC, and Fox at the expense of broadcast news, the Internet revolution is producing a wholesale shakeup of the news system. It has forced old-line media organizations to compete not only against newcomers and traditional rivals, but also to compete against themselves. Online newspaper readership now exceeds the daily circulation of the hard-copy newspaper.[5]

This report examines trends in Internet-based news traffic for the purpose of peering into the future of news in America. In light of the continuing migration of people to online news and the evolving nature of Web technology, our assessments are necessarily preliminary and speculative. Precise judgments are also made difficult by the range of Internet-based news outlets. Thousands of sites offer news and news-related content. Nevertheless, there are emerging patterns. Like the cable and broadcast revolutions, the Internet revolution is redistributing the news audience in ways beneficial to some news outlets and harmful to others.

METHODOLOGY

Most studies of Internet-based news have concentrated on a few top sites or on one type of site, such as weblogs. Even the Project for Excellence in Journalism in preparing its most recent "State of the News Media" report examined only 40 or so sites for its assessments, though doing so in exacting detail.

We chose to take a thinner but wider look at Internet-based news, examining traffic to 160 sites over a yearlong period in an effort to compare categories of sites. Although top sites such as cnn.com and nytimes.com are included in the analysis, our purpose was to identify trends across the spectrum of Internet-based news. Accordingly, we examined a wide range of news-based websites. In regard to newspaper-based sites, for example, we looked separately at "brand name" dailies, large-city dailies, mid-sized-city dailies, and small-city dailies.

We looked at only a sampling of sites within each category. The sampling was purposive rather than random. In choosing the large-city, medium-sized city, and small-city newspaper sites, for example, we picked nine cities in each category, seeking a geographic spread in each category. The specific websites used to represent each category are identified in the report's footnotes.

Internet traffic is monitored by a number of data-gathering firms, including Alexa, Nielsen//Net Ratings,

Web Stat, and Compete. Each differs in its sampling techniques and algorithms but their rankings of various Internet sites are similar, even though the absolute numbers differ somewhat. The firms also differ in the fees they charge and the data services they provide. We used Compete's traffic estimates for this report because the data include U.S. users only. Moreover, Compete's data are available without charge and thus can be examined by any researcher who might want to replicate or extend our analysis. The appendix to this report provides additional information on the report's methodology.

The major variable in our analysis is "people count"—the number of unique individuals that visit a particular site during a given month.[6] By this indicator, a single individual is counted only once, no matter how many times he or she visits the site during the month.[*] The indicator will be used to compare the relative popularity of news sites. Changes in this indicator over the one-year period beginning in April 2006 and ending in April 2007 are the basis for our assessment of whether traffic to a particular type of site is increasing, stable, or decreasing.[7] These two months were "typical" in the sense that neither month had an overriding event that drew Americans to the news in unusually high numbers day after day. If April of either year had been dominated by such an event (as was the case, for example, with September of 2001, March of 2003, October of 2004, and November of 2006),[8] it would have been an unsuitable basis for measuring trends.

In the figures of this report, we show only the data for April 2006 and April 2007 because our purpose was to examine the yearlong change. News consumption on the Internet follows the seasonal pattern of news consumption generally. Just as Americans are more likely to watch television news (and television programming generally) in the winter months than in the summer months, Internet news traffic is generally higher in winter than in summer. Accordingly, accurate assessments of the yearlong trend require a comparison of a particular month in one year with the same month in the following year. We chose April as the basis for our comparison because the data for April 2007 were the latest monthly data available to us at the time we compiled our data set. In the process of gathering the data, we perused the

figures for other months, concluding that the April to April results were typical of other same-month to same-month comparisons. We hope this report will encourage other researchers to expand the scope—both as to time frame and news sites—of our study.

The following section concentrates on our findings about the trends in Internet-based news. The implications of the findings will be explored in the closing section.

NEWS TRAFFIC ON THE INTERNET

Like the cosmos, the Internet is expanding. There are 500 million websites worldwide[9] and the number is constantly increasing, creating heightened competition for people's time and attention. Accordingly, the audience share of the typical sector—the proportion of the total Internet traffic it attracts—is decreasing over time. A sector may undergo a period of spectacular growth, as was the case a few years ago with eBay and other auction sites. However, even if a sector's traffic continues to increase in *absolute* terms (as is the case with auction sites), most sectors are shrinking in *relative* size because the Internet itself is getting larger.

The news sector is shrinking in relative terms. The Internet was originally a means by which university researchers and government agencies shared information. Not until creation of the World Wide Web, which eased navigation and allowed the use of graphics, did the Internet begin to function as a mass medium. News organizations with their ready supply of content were among the first to respond, and they quickly gained audience share. In recent years, however, their relative share has diminished.[10]

That said, news is a growth sector on the Internet in absolute terms. Although the increase in traffic has slowed recently,[11] it remains on the rise as Americans increasingly seek their news through the Internet. There is also movement between news-based sites. Some site categories are undergoing flat or negative growth, while others are experiencing positive growth. During the past year, as our findings will show, local sites have slipped relative to national sites and print sites have slipped relative to electronic sites. In addition, sites connected to news organizations have slipped relative to those that "free ride" on the news these organizations produce.

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[*] An alternative variable would have been "visitors," which counts each visit to a site, even if it is a visit by an individual who has previously been to the site that month. We examined the "visitors" data and found that the use of this variable would have produced the same conclusions as resulted from the use of the "people count" variable. The footnotes contain references to the "visitors" data for various sites.

DAILY NEWSPAPERS

Print-based news organizations were among the Web's "first movers." The Internet was initially a text-driven medium, making it a better fit for print news than for electronic news. This initial advantage has disappeared, however. The Newspaper Association of America's Nielsen/Net Ratings figures indicate that traffic to online newspaper websites as a whole has been more or less flat since 2005.[12] It is not the case, however, that all newspaper sites are experiencing the same fate. The overall trajectory hides important differences across the newspaper sector. A few newspaper sites are attracting ever larger audiences while most others are stagnant or losing ground.

"Brand Name" Dailies.[13] Unlike some European countries, the United States has a local newspaper tradition. Every urban area has its local paper, and the vast majority of readers consume the local paper only. Nevertheless, a few newspapers—the *New York Times*, *Washington Post*, *USA Today*, and *Wall Street Journal*—are national brands in the sense that they are widely known throughout the country.

Figure 1 shows the average "people count" of these newspapers' websites. Their unique monthly visitors number in the millions. Their audience appeal is even more impressive when the *Wall Street Journal*
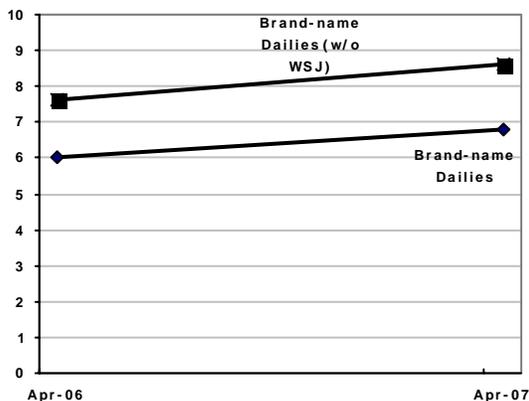

Figure 1. Website Traffic of Brand-Name Newspapers in Millions

is removed from the figures. The *Journal's* website is aimed at the business reader and restricts free access to its news. As a result, the *Journal*'s web traffic is much lighter than that of the other brand-name papers. With the *Journal* excluded, traffic to the brand-name sites increases by a fourth and the average Web ranking rises to the 109th position,[14] marking these sites as being among the most frequently visited sites by Americans.

Brand-name newspaper sites are gaining audience. Their traffic in April 2007 exceeded their April 2006

traffic by more than 10 percent, which corresponds to an average gain of nearly a million unique monthly visitors.[15] It is a trend that dates to the early years of Internet-based newspapers.

Other Daily Papers. Several large-city newspapers have hard-copy circulations rivaling the hard-copy circulations of the national brand-name newspapers. When it comes to the Internet, however, large-city newspapers are poor cousins to their brand-name counterparts. Their site traffic averages 1.2 million unique individuals a month—only about a seventh of that of brand-name newspaper sites (see Figure 2).[16]

Moreover, unlike the brand-name sites, the typical site of a large-city daily is not growing. The average
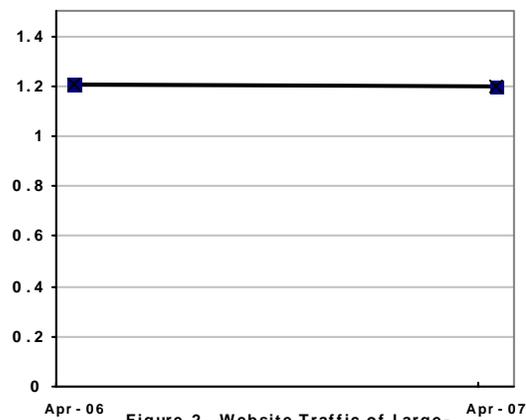

Figure 2. Website Traffic of Large-City Newspapers in Millions

traffic level in April 2007 was nearly identical to the level in April 2006. Not all of the sites experienced flat growth, however. Traffic to one of the sample sites rose by nearly 20 percent over the previous April. On the other hand, the traffic to four of the sites declined by 10 percent or more during the period studied.

The websites of newspapers in mid-sized cities, such as Baltimore, Denver, Seattle, and Minneapolis, attract considerable traffic, as Figure 3 indicates.[17] The traffic level is skewed, however, by the *San Francisco Chronicle* and *Seattle Post-Intelligencer* sites, each of which averages about 2 million unique monthly visitors. When the two sites are excluded, the average number of unique monthly visitors to mid-sized-city newspaper sites falls to roughly 665,000.

Mid-sized-city newspaper sites are not growing. On average, whether the Seattle and San Francisco papers are included or not, they attracted substantially fewer unique visitors in April 2007 than they did in April 2006. The decline is not attributable to a steep drop in traffic at one or two sites. Of the nine sites included in the average, two had modest growth, one had flat growth, and six had negative growth. The
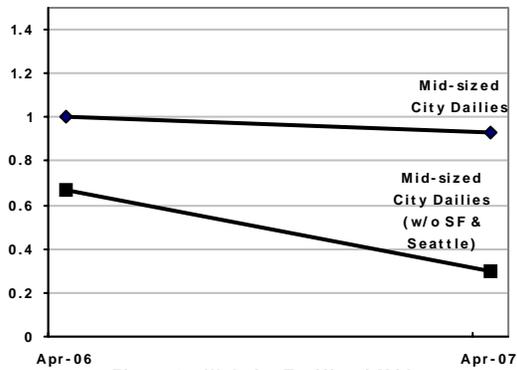
Figure 3. Website Traffic of Mid-Sized-City Newspapers in Millions

visiting it on a monthly basis.[21] When CNN's website is excluded, the average shrinks to 3.2 million—a large number in comparison with most news sites but not in comparison with brand-name newspaper sites.

Like brand-name newspaper sites, those of brand-name television news are gaining audience. Between April 2006 and April 2007, their average people count increased by 35 percent when CNN is included and 37 percent when it is not.[22] This growth level is three times that of brand-name newspaper sites.

decline for four of the sites exceeded 10 percent.

The sites of small-city dailies also are not growing (see Figure 4).[18] Although two of the nine sites we sampled had a traffic increase of 20 percent or more from the previous April, five sites suffered a decline, including one that lost 20 percent of its Web audience.[19]
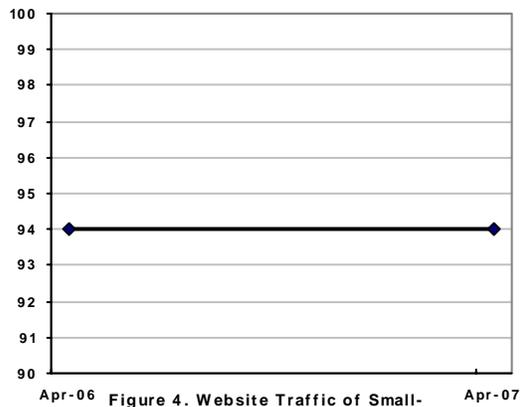

Figure 4. Website Traffic of Small-City Newspapers in Thousands
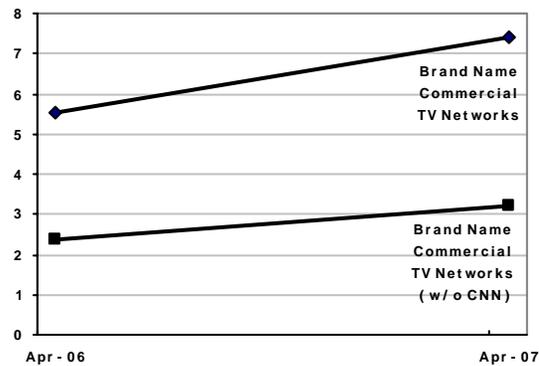
Figure 5. Website Traffic of Brand-Name Commercial Television Networks in Millions

Local Commercial TV Stations. Television's late start on the Web is clearest at the local level. The people count for the typical large-city TV station website[23] is but a fourth that of the typical large-city newspaper site (Figure 6). The sites of mid-sized-city TV stations[24] and small-city TV stations[25] fare no better relative to their newspaper counterparts (Figures 7 and 8).[26]

TELEVISION NEWS ORGANIZATIONS

Because they are picture based, television news organizations were slower than newspapers to adapt to the Internet. Technological change has reduced the incompatibility of the two mediums, and TV news organizations at all levels are now more active on the Web. Their site traffic is lower on average than that of newspaper-based sites but the gap is closing.

Brand-name TV networks. On average, the websites of television's brand names—ABC, CBS, NBC, CNN, Fox, and MSNBC—have substantial audiences. They average 7.4 million unique visitors a month (Figure 5).[20] This average is distorted, however, by CNN's huge Internet following, which ranks 24th among all Internet sites in terms of the number of Americans

Figure 6. Website Traffic of Large-City Commercial TV Stations in Thousands

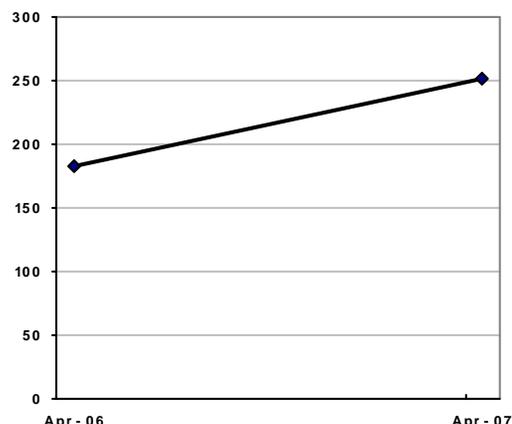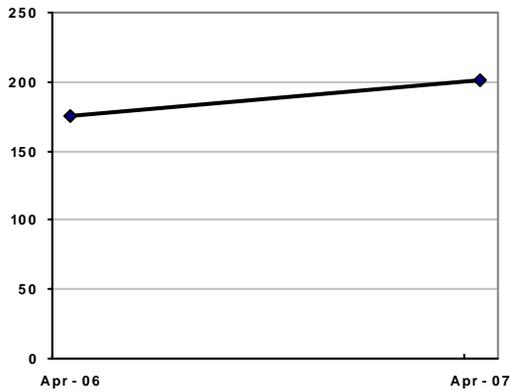**Figure 7. Website Traffic of Mid-Sized-City Commercial TV Stations in Thousands**

Figure 8. Website Traffic of Small-City Commercial TV Stations in Thousands

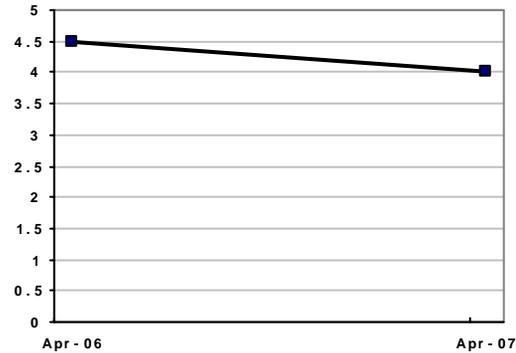fewer unique visitors in April 2007, a decline exceeding 10 percent.[28]

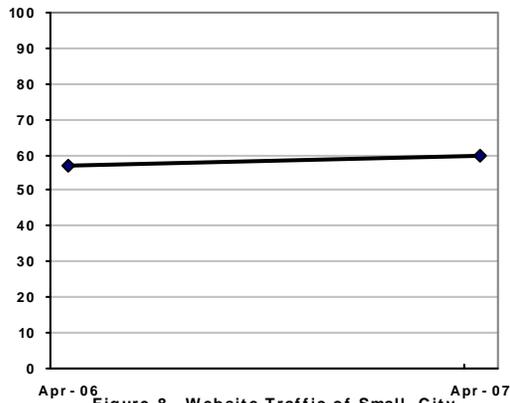**Figure 9. Website Traffic of Public Broadcasting System (PBS) in Millions**
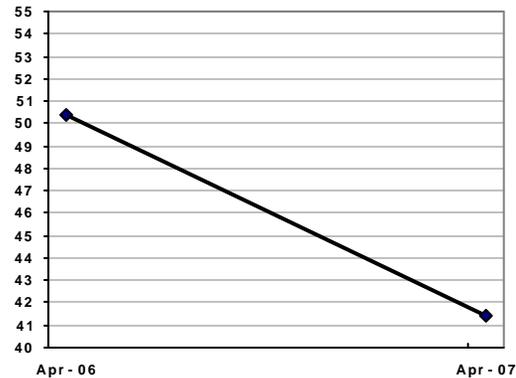
Figure 10. Website Traffic of Local Public Broadcasting TV Stations in Thousands

However, whereas local newspaper sites have flat or negative growth, the traffic to local TV stations' sites is increasing in cities of all sizes. About three fourths of large-city TV sites increased their unique visitor count between April 2006 and April 2007. The average increase over this period was nearly 40 percent. For mid-sized-city TV sites, the average increase was 15 percent with three-fourths of the sites posting a gain. Among the twelve small-city TV sites we examined, the increase was smaller—6 percent on average.[27]

Public Television. Although it does not have the name recognition of CNN or ABC, PBS is widely enough known to be considered a brand-name outlet. Traffic to its Internet site reflects its national visibility (Figure 9). The site's traffic—roughly 4 million unique visitors monthly—is below the average of brand-name outlets but far above that of most news sites. On the other hand, PBS's site is among those that are losing traffic. In comparison with April 2006, PBS had 500,000

Local public television stations' websites are not heavily visited. Traffic to these sites is light even in large and mid-sized markets (Figure 10).[29] As well, these sites are losing audience. Among the ten local public television sites included in our study, nine had fewer unique visitors in April 2007 than in April 2006. The average decrease was nearly 20 percent.[30] (In the report's concluding section, we will offer a possible explanation for why the site traffic for public television is decreasing, even though it is increasing for other TV-related sites.)

RADIO NEWS ORGANIZATIONS

Until the 1950s, radio was the premier broadcasting medium. Its networks carried a lineup of news and entertainment programming that was aired to a huge national audience. After television captured this audience, radio became a largely local medium, and remains so. To be sure, some syndicated radio programs, such as the *Rush Limbaugh Show*, have a national audience. As well, the major broadcast

networks—ABC, CBS, and NBC—produce national newscasts for their affiliated stations. But these networks do not operate like the full-service networks of radio's heyday.

Local Commercial Radio Stations. Local stations are no longer required by FCC regulations to carry news, and many do not air newscasts. These stations also do not feature news on their websites. The sites that do feature news are those of radio stations that anchor their on-air programming on news and talk shows or that periodically broadcast newscasts in the midst of their other programming. The websites of large-city major stations of this type attract only limited traffic. As Figure 11 shows,[31] they average 33,000 unique visitors a month. When the sites of mid-sized-city radio stations are examined, the traffic is even lighter (Figure 12).[32] Their monthly average is 17,000 unique visitors.

Although their traffic is light, the websites of local radio stations are gaining audience. Traffic in April of 2007, as compared with the same month in the previous year, increased 23 percent for large-city radio sites and 14 percent for mid-sized-city radio sites.[‡]

Public Radio. National Public Radio (NPR) is both a national radio network and a national brand name. NPR's website attracts more than a million unique visitors each month (see Figure 13). This amount is small in comparison with most brand-name sites, but large in comparison with most news-based sites. However, unlike the norm for brand-name sites, NPR's site lost audience during the past year, falling from 1.8 million unique visitors in April 2006 to 1.4 million unique visitors in April 2007, a decline that exceeded 20 percent.

The website audience of local public radio stations also declined during the period studied (Figure 14).[33] On average, those in large and mid-sized markets had a 14 percent decrease in traffic, falling from 19,500 unique monthly visitors to 16,800.[34]

Figure 13. Website Traffic of National Public Radio in Millions

Figure 11. Website Traffic of Large-City Commercial Radio Stations in Thousands

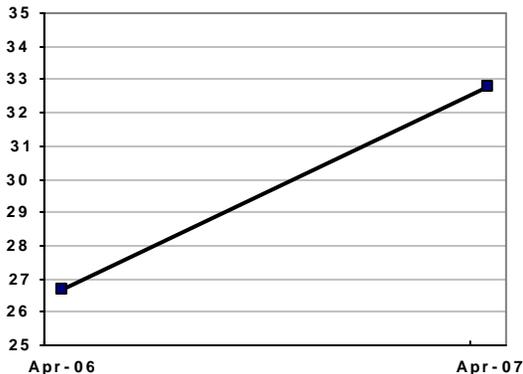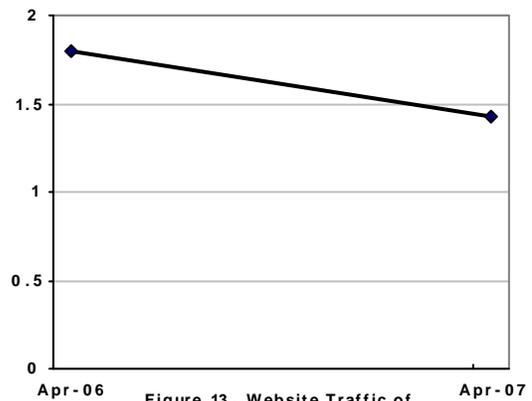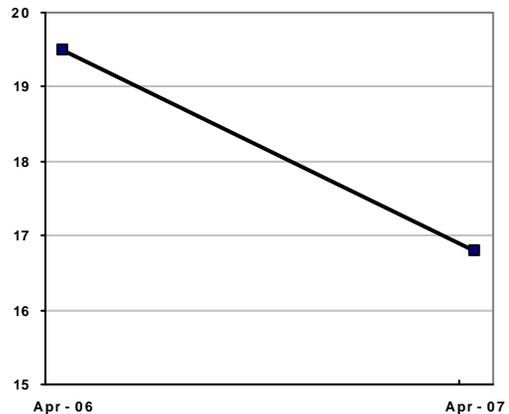Figure 14. Website Traffic of Local Public Radio Stations in Thousands

Figure 12. Website Traffic of Mid-Sized-City Commercial Radio Stations in Thousands

NONTRADITIONAL NEWS OUTLETS

Although the Internet revolution parallels in some respect the earlier broadcast and cable revolutions, it diverges from them in a critical respect: the presence of what economists call free riders. The output of traditional news organizations—the news they produce—is used not only by consumers but by competitors that have not borne an equitable share of the production costs.

We have limited our assessment of nontraditional news sites to those that deal in daily public affairs news. Some "news" sites deal mostly in "personal news" and are outside the scope of our study. In deciding which sites to examine, we encountered two problems of note. First, the nontraditional categories are not as clearly defined as those of the traditional media. The boundary between news bloggers and news aggregators, for example, is blurred by the fact that many blogs also aggregate and many aggregators also blog. Second, nontraditional sites are not as easy to locate as are the sites associated with the traditional media. There is, for example, no comprehensive list of news-based blogs. Accordingly, the assessments presented in this section are based on selections that are more arbitrary than the earlier ones.

Search Engines & Service Providers. Many of the top ten overall sites on the Internet, including Google, Yahoo, AOL, and MSN, post news stories or news links on their homepages. The traffic to these top sites dwarfs that of even the upper tier of news organization sites. The four aforementioned sites average about 100 million unique monthly visitors.

However, this traffic measure cannot be compared directly to that of news organization sites in that it reflects the overall traffic level as opposed to the news traffic level. The traffic to news.google.com, for example, is subsumed in the total for google.com. Nevertheless, Google, Yahoo, and the others are increasingly cited by survey respondents as relied-upon news sources. In a 2006 survey, for example, the Pew Research Center for the People & the Press found that 23 percent of those who regularly get news online relied on yahoo.com as a news source. Google.com and aol.com were also frequently mentioned. The only two news sites to be mentioned as often as these sites were cnn.com and msnbc.com (which is accessed through msnbc.com as well as directly).[35]

Aggregators. Aggregators use software to monitor and post relevant web content. Some of the most heavily used aggregators, such as myspace.com, include news on their site but do not feature it. Other aggregators do highlight the daily news, drawing stories from different sources. We examined traffic during the past year to four such sites. The sites differed in an important respect. Two of them (newsvine.com and topix.net) are closely connected to particular news organizations whose journalists actively participate in the posting process, whereas the other two (digg.com and reddit.com) are user driven.

Both types of aggregators have been stunningly successful in attracting visitors. Digg has been so successful in fact that it is not shown in Figure 15 because its numbers are off the chart. Between April 2006 and April 2007, Digg's unique monthly visitors jumped from under 2 million to more than 15 million. None of the other three aggregators experienced anywhere near that kind of numerical gain, but each had a *rate* of growth exceeding Digg's. Reddit and Topix each grew from less than 50,000 visitors a month to over 700,000. No traditional news organization—not even the brand names—had a growth level remotely close to these levels.
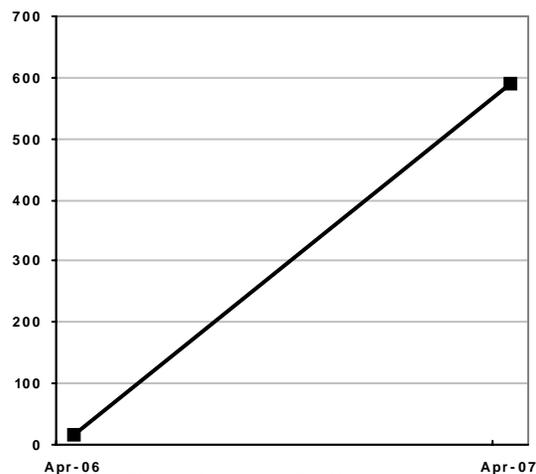
Figure 15. Website Traffic of News Aggregators in Thousands

Of course, four sites are an insufficient sampling for a reliable assessment of how the algorithm-based aggregator sector as a whole is faring. On the other hand, whereas it is easy to identify other successful aggregators (for example, technorati.com, which has over 3 million unique monthly visitors and had a 150 percent increase in traffic during the past year), it is

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‡ Small-city radio station websites are not reported in this study. Our examination of more than two dozen of these sites revealed such wide disparities that we concluded there is no general "pattern" to these sites except for the fact that they appear to be a low priority for most small-city stations.

difficult to find examples of well-staffed and well-funded failures (although ohmynews.com's traffic in the United States pales alongside its traffic elsewhere). No doubt, there is an upper limit to the number of aggregator sites that will prove successful in that such sites will be competing for many of the same users. It is possible, too, as is the case with other Internet sectors, that the aggregator sector will develop a "long tail" (a reference to an audience distribution marked by a few sites with a huge following on one end of the distribution and lots of sites with small followings on the other end). The availability of computer-based algorithms that are inexpensive and easily applied will lower the price of entry into the aggregator sector, thereby attracting additional players. It is safe to predict that most of them will be much less successful than the sector's first movers.

Aggregators with Attitude. The Internet has unleashed a type of news that was common in nineteenth-century America—news with a partisan spin. Although some news aggregators highlight stories on the basis of journalists' or visitors' judgments, other aggregators emphasize stories and angles that promote a partisan agenda. We examined traffic over the past year to five such sites, including the conservative-leaning site that pioneered the model, drudgereport.com. The five sites represent the political left as well as the political right.
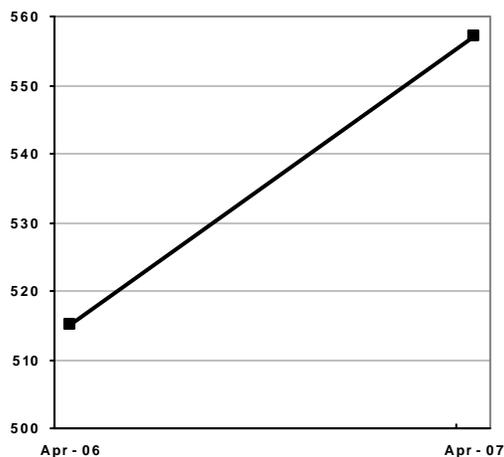

Figure 16. Website Traffic of News Aggregators with Attitude in Thousands

Figure 16 shows the traffic pattern for these sites. They have not done as well in the past year as news aggregator sites that offer straight news, but they have substantial audiences. They average roughly 550,000 unique monthly visitors, which is more than local newspaper sites except for those in the bigger cities.

And unlike local papers, they are growing, albeit modestly—8 percent over the past year.[36]

Bloggers. Although top bloggers have received more attention than other nontraditional Internet-based news providers, they do not rank high individually in terms of traffic. Their collective traffic is more substantial. The Pew Research Center for the People & the Press found in its 2006 media survey that a fourth of Internet users made use of blogs, a nearly 60 percent increase over the level found in its 2004 survey.[37]

Figure 17 shows the traffic pattern for eight prominent blogs.[38] They averaged nearly 200,000
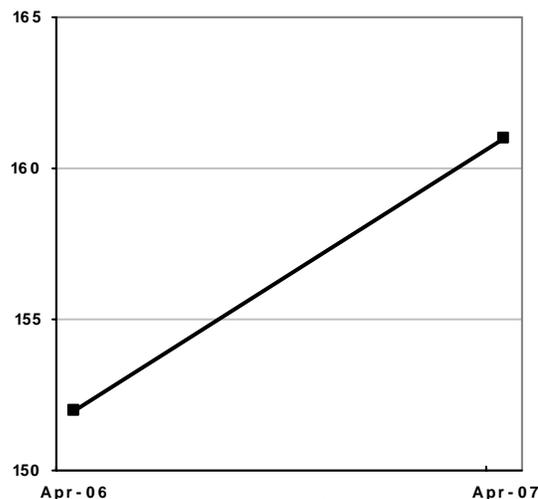
Figure 17. Website Traffic of Bloggers in Thousands

unique monthly visits—less than the typical mid-sized-city newspaper. Unlike the typical newspaper site, however, the traffic level to these blog sites increased slightly between April 2006 and April 2007, rising 6 percent on average.[39] These blogs, however, are at the high end of a long-tail distribution; most news-related blogs have only a small following.

Community Sites. So far, all of the nontraditional sites that have been discussed are ones that seek to draw visitors from across the country. However, many cities and towns have community-centered sites. Some of these sites do not include news, but others do, competing with local news outlets for residents' attention. No list of these sites exists, but we identified ten such sites, all in large and mid-sized cities.[40] Figure 18 contains their traffic pattern. Their unique monthly visitor count averaged nearly 30,000 in April 2007, which is small by comparison with the newspaper and local television sites in the same cities. On the other hand, traffic to these sites increased during the year ending April 2007; on average, they grew by 14 percent. On the other hand, there is at least one high-

Figure 18. Website Traffic of Community Sites in Thousands

profile example of a failed community site, bayosphere.com. Launched with considerable fanfare by former journalist and Internet seer Dan Gillmor, the site was aimed at the San Francisco Bay community, but did not attract the large audience its founder had anticipated.

PEERING INTO THE FUTURE, DIMLY
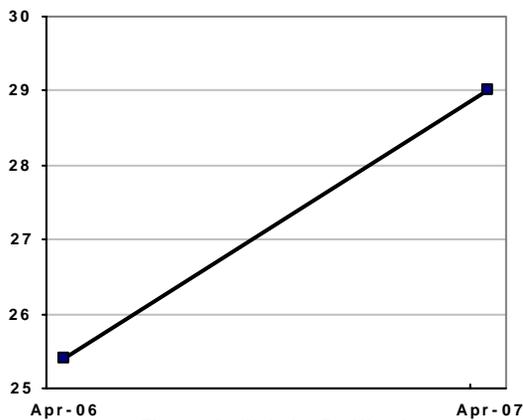
In *The Vanishing Newspaper*, Philip Meyer, a former newspaperman and holder of the Knight Chair in Journalism at the University of North Carolina, wrote: "The newest of the disruptive technologies, online services, may offer the most dangerous product substitution yet."[41]

Our study, though exploratory, underscores Meyer's concern. The Internet is redistributing the news audience in ways that is threatening some traditional news organizations. Local newspapers have been the outlets that are most at risk, and they are likely to remain so. If our trend analysis is borne out, many newspapers are going to have difficulty even holding onto their online readers. Brand-name newspapers' sites, as well as some others are growing, but a significant proportion of newspaper sites are stagnant or losing visitors. This development was perhaps inevitable. As first movers on the Internet, newspapers gained an early advantage, but the source of that advantage—readily available print content—is relatively easy for other sites to obtain or create.

The problem of newspapers is compounded by the fact that they cannot succeed simply by replacing their hard-copy readers with online readers. On a person-by-person basis, the sale of hard-copy newspapers is vastly more profitable than drawing people to the paper's website. It is estimated that a newspaper needs to attract two or three dozen online readers to make up for—in terms of advertising revenue—the loss of a single hard-copy reader.

Product substitution through the Internet has been less of a threat to the electronic news media. To date, although the situation is changing rapidly, video and audio content has been less easy than print content to duplicate or create. Television and radio have also benefited from the fact that a larger share of their advertising is aimed at raising brand awareness, as opposed to selling particular items. Newspaper advertising is more heavily of the latter type, which is also the Internet's strength as a selling tool. Classified ads, which were nearly a newspaper monopoly and until recently the source of a third of newspaper revenue,[42] have been moving online, often to sites such as craigslist.org that charge no fee.

In part because their profits were less threatened by developments on the Internet,[43] the electronic news media, particularly at the local level, were slow to respond to it. In the past two years or so, they have accelerated their efforts, as evident in the increased traffic to local commercial television and radio sites. It is an open question, however, whether they can sustain the momentum. For one thing, it is not clear just how much Internet traffic a particular community can bear. If local newspapers, television stations, and radio stations all compete strongly for residents' Internet time, are there enough users to go around?

In addition, the Internet has weakened the influence of geography in the selection of a news source. When people go to the Internet for news, they can just as easily navigate to a source outside their community as one within it, bypassing a local site in favor of a known site elsewhere. Therein is a primary reason why brand-name news organizations, like CNN and the *New York Times*, have large Web audiences. The Internet inherently favors "brand names"—those relatively few sites that are readily brought to mind by users everywhere when they seek news on the Internet. The *Times'* website, for example, draws three fourths of its visitors from outside the states of New York, Connecticut, and New Jersey.[44]

Conventional wisdom holds that the Internet is contributing to an increasingly fragmented news audience. This claim is true in a certain sense. The number of news sources has increased, spreading the news audience across an increasingly larger number of providers. However, when the Internet system is examined by itself, it has a less disbursed audience than does the newspaper system. Although the Internet has thousands of providers, a small number of them dominate the market. In the newspaper system, no provider has even as much as 5 percent of the market, and 1 percent is a large share. Comparable figures for the Internet news system are harder to calculate, but it is clear that a small number of providers, such as

cnn.com and nytimes.com, have the lion's share. The *New York Times*'s site, for example, attracts well over 10 percent of the online newspaper audience, whereas CNN's share among television news organizations is even larger. And, according to our evidence, their respective shares might well increase. Brand-name sites are growing at a pace unmatched by those of other news organizations.

The largest threat posed by the Internet to traditional news organizations, however, is the ease with which imaginative or well positioned players from outside the news system can use news to attract an audience. Just as the television networks made their mark as entertainment media before making a serious and successful entry into news in the early 1960s, yahoo.com, aol.com, and other search engines and service providers are making a serious and successful foray into news. And if such sites came in through the side door, others have come in through the front door, offering users a form of news that traditional media were not providing. Sites driven by partisanship, by users, and by interactivity are now a significant part of Internet-based news and are likely to grow in audience and influence.

New types of nontraditional actors can be expected to enter the arena of Internet news, increasing the competition for users' attention. Lobbying groups are among the possible candidates. Already, many lobbying groups, including most of the larger ones, post news content related to their issues on their websites. To assess whether news content enables lobbying groups to attract constituents, we identified twenty comparably sized group-based websites, half of which had news on their site[45] and half of which did not.[46] The results, though hardly conclusive, are suggestive (Figure 19). In April 2006, the different sites had virtually the same traffic level on average. A year later, traffic to the lobbying group sites with news had increased by an average of 21 percent while traffic to the sites without news had decreased by 12 percent. If it were to be determined that news, in fact, drives traffic to lobbying group websites, groups would routinely post news on their sites. As a means of cementing further their connection to group members, they might even start carrying the day's top headlines.

The point here is not that lobbying groups are a grave threat to the traditional news media but that the Internet makes it simple for non-media actors, including the thousands of lobbying groups in the United States, to become news providers, which does threaten the vitality of America's news organizations.

Although the Internet is a threat to the traditional news media, it is also a growth opportunity. As a news medium, the Internet has a large future. "Adapt, or Die," was how a recent article in the *American*

Journalism Review framed the challenge facing the traditional media. Successful adaptation will require that they leverage their considerable strengths.

Top news organizations such as the *New York Times* are not the only brand names in the news business. Virtually every city has one or more local brand-name news outlets, nearly always including the local newspaper. A 2004 Online Publishers Association study found that offline loyalties can be the basis for online choices.[47] However, many local
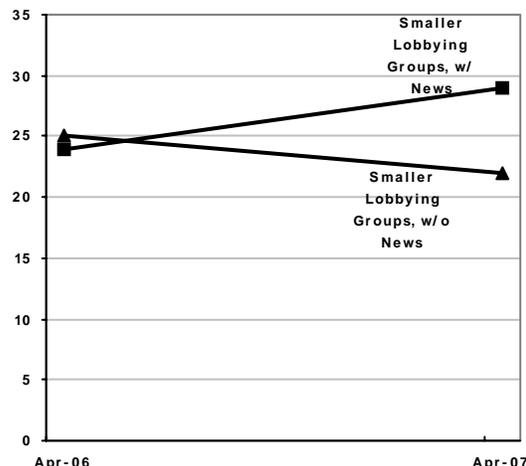

Figure 19. Website Traffic of Smaller Lobbying Groups in Thousands

news organizations have responded timidly to the Internet revolution, fearing that an online emphasis will cannibalize their offline audience. An earlier Shorenstein Center study, for example, looked at news in the public schools and found that most local papers were continuing to push the hard-copy version, despite indications that today's students don't have a keen interest in newspaper-based news.[48] Such policies make it easier for nontraditional competitors, such as the city sites we examined in this report, to capture a share of the local online audience.

Having a brand name is only one of the assets that traditional media can leverage. They also have access to audiences and can use that access to drive people to their sites. Although newspaper circulation is down, local papers still have a daily pipeline to many residents in their communities. Local television and radio stations also have an invaluable pipeline—the broadcast license that gives them an exclusive right to disseminate their messages over the air. Of the two, the long-term advantage may rest with the electronic media. Being told about a website—"more information on this story can be found on our website"—may have more salience than when seeing it in the newspaper. In a June 12, 2007, article entitled "Big Radio Makes a

Grab for Internet Listeners," the *New York Times* described radio stations' power—which has been little used to date—to drive listeners to their websites. If television and radio stations were to employ this power more often and more effectively, the upward trend in visitors to their sites could continue.

The greatest asset that the traditional media may have, however, is their product—the news. More so than radio, television, or newspaper content, the Internet content that people see is a deliberate choice. Their pursuits are largely determined by the interests they bring to the Web. Their pre-existing preferences affect the sites, out of the tens of thousands available, they choose to see. It makes sense to believe that, when they choose the site of a news organization, they expect to see the news. Ironically, some news organizations do not feature the news prominently on their sites. We were puzzled, for example, why traffic to public television and radio networks and stations was declining, whereas it was rising for most commercial television and radio outlets. A possible reason is that public broadcasting websites are designed primarily to promote featured programs rather than to provide the day's news.

The question of how much the structure of news-based sites matters in their ability to attract visitors is an important one, and an avenue for future research. There is substantial variation in how local newspapers, for example, display their news content. For some papers, it dominates the home page. For others, the home page is a jumble of news, blogs, ads, and activity lists. Some sites can be described as hyper-local sites while others also prominently display national and international news. Our hunch—and it is just a hunch, because we did not study the question—is that the local papers would gain in the long run from featuring news and from including national and international news in the mix. If local news is downplayed, local papers are conceding a comparative advantage in their competition with other community sites for residents' loyalties. If national and international news is downplayed, local papers may increase the likelihood that local residents will gravitate to national brand-name outlets.

Indeed, we regard all of the subjects raised herein as questions to be tested, refined, and extended. Internet based-news is a large and dynamic universe that news organizations need to understand more fully as they respond to its challenges.

ENDNOTES

[1] Statistics of the Newspaper Association of America.

[2] Nielsen data. It should be noted that each of the broadcast evening newscasts have an audience rating exceeding that of any cable news program. However, when rating points during a 24-hour period for all news programs combined are examined, cable news has a larger audience than broadcast news.

[3] Project for Excellence in Journalism, "State of the News Media 2007," Washington, D.C., March, 2007.

[4] Ibid.

[5] Ibid.

[6] At points in this report, we also make reference to a second variable—"visits." A single individual can "visit" the same site multiple times during a month. The ratio of "visits" to "people count" is an indicator of the degree to which individuals regularly go to a site for news. It should be noted that Compete's data tend to differ from Nielsen//Net Ratings data on the "visits" variable. The latter's numbers are higher across the board for news sites. In this report, we are interested only in *relative* differences between categories in the visits/people ratio; accordingly, our assessments on the visits/people indicator would be the same regardless of which service's data were used.

[7] These indicators vary by events of the moment. The midterm elections of 2006, for example, contributed to increased traffic to news sites in October and November of that year. The indicators also vary by time of the year. The summer months bring a slowdown in traffic to Internet news sites, just as they result in a dip in television news viewing. We control for the time variation by comparing traffic in April of 2006 with traffic in April of 2007. There was no unusual spike in traffic during either of these months as a result of events.

[8] There was a spike in news interest in these four months because of particular events: the terrorist attacks of September 2001, the Iraq invasion of March 2003, the presidential debates and other campaign activity of October 2004, and the momentous midterm election of November 2006.

[9] Nielsen//Net Ratings estimate, June 2007.

[10] Based on an examination of Alexa traffic data over a four-year period for more than 200 news organization websites.

[11] "State of the News Media."

[12] Nielsen/Net Ratings, "Custom Analysis Readership Data," prepared for the Newspaper Association of America.

[13] America's brand-name print organizations include a trio of weekly news magazines—*Time*, *Newsweek*, and *US News & World Report*. As weekly outlets, their websites can be expected to attract less traffic than the top newspapers. Their traffic is considerably smaller—on average, only about an eighth of that of the brand-name papers. At the same time, the websites of these news weeklies are gaining audience at about the same percentage rate as the brand-name dailies.

[14] Compete data, based on April 2007.

[15] These sites are roughly average in terms of the ratio of "visits" (the overall number of people who go to the site in a month) to "people count" (the discrete number of individuals who go the site in a month). Their average visits/people ratio is 2.4 to 1 according to Compete's calculations, which as indicated in a previous footnote, tend to be on the low side.

[16] The websites that were used to represent large-city dailies are those of the *Los Angeles Times, Houston Chronicle, Philadelphia Inquirer, San Diego Union-Tribune, Dallas Morning News, Detroit News,* and the *Arizona Republic.* In addition, the average of the *Chicago Tribune* and the *Chicago Sun-Times* was used to represent Chicago, while the average of the *New York Post* and the *New York Daily News* was used to represent New York.

[17] The newspaper websites used to represent those of dailies in medium-sized cities are the *San Francisco Chronicle, Baltimore Sun, Denver Post, Pittsburgh Post-Gazette, Portland Oregonian, Seattle Post-Intelligencer, Minneapolis StarTribune, Louisville Courier,* and *St. Louis Post-Dispatch.*

[18] The newspaper sites used to represent small-city dailies were the *Kingsport Time News, Allentown Morning Call, Belleville News Democrat, Pensacola News Journal, Concord Monitor, Galveston Daily News, Daily Astorian* (Oregon), *Alameda Times Star,* and *Bangor Daily News.*

[19] Small-city newspaper sites have an edge over their larger counterparts in one respect: their users are more reliable. The visitor/people ratio for the sites of small-city dailies was 3.3 to 1, compared with ratios of 2.8 to 1 for mid-sized-city newspaper sites and 2.4 to 1 for brand name and large-city papers. A possible reason for the difference is that there are fewer local competitors in smaller cities. It is also possible that residents of smaller cities are more interested in what is happening locally than are residents of larger cities.

[20] The sites used for brand-name TV networks are CNN, Fox (foxnews.com, as opposed to fox.com), CBS (cbsnews.com as opposed to cbs.com), and MSNBC. ABC is not included because it shares a common site with other organizations. NBC is not included because MSNBC is the primary news site for NBC.

[21] Compete data, based on April 2007.

[22] Their average visits/people ratio exceeds 3.5 to 1, higher than that of any newspaper category.

[23] The websites used to represent large-city TV stations are New York (WNBC, NY1, WCBS), Chicago (CBS2 and WMAQ), Dallas (KXAS and KTVT), Los Angeles (KCBS), Houston (KHOU and KPRC), Philadelphia (CBS3 and WCAU), and Phoenix (KPHO). Nearly all of these sites are affiliated with CBS or NBC. ABC sites are excluded because they share a common site. Fox affiliates are not included because Fox relaunched them in 2006, which disrupted their traffic for a period. The website of the NBC affiliate in Phoenix was also intentionally omitted because its Internet traffic is seven times greater than that of the average site in the category. Its inclusion would have distorted any reasonable notion of what is "average" for this category.

[24] The TV stations used to represent medium-sized cities are Seattle (KIRO and KING), Boston (WHDH), Minneapolis (WCCO and KARE), Atlanta (WXIA), Denver (KCNC and KUSA), St. Louis (KSDK and KMON), and Baltimore (WJZ). Nearly all of these stations are CBS and NBC affiliates. ABC and Fox affiliates are not included for reasons stated in the previous footnote.

[25] The TV stations used to represent small cities are Huntsville (WHNT), Lubbock (KCBD), Topeka (WIBW), Lincoln (KOLN), Sioux Falls (KELO), Knoxville (WVLT), Lexington (WKYT), Toledo (WTOL), Charleston, WV (WOWK), Roanoke (WDBJ), Charleston, SC (WCSC), and Bangor

(WLBZ).

[26] The smaller gap between the sites of small-city papers and TV stations, as compared with those in large cities and mid-sized cities, probably owes to the fact that, in the small-city case only, there was a difference in the size of the communities used to represent each category

[27] Local sites tied to television stations have visit/people ratios slightly lower than those of local newspaper sites. As in the case of newspaper sites, however, the ratio increases as city size decreases.

[28] Although it might be assumed to be otherwise, PBS's site ranks relatively low in user loyalty, as indicated by the visits/people ratio. PBS's ratio is a mere 1.3 to 1, which is a third of the commercial TV network average and half of the brand-name newspaper average.

[29] The following stations were used to represent public television sites in large and medium-sized cities: New York (WNET), Minneapolis (KTCA), Chicago (WTTW), Boston (WGBH), Los Angeles (KCET), Seattle (KCTS), Atlanta (GPB), Dallas (KERA), Philadelphia (WHYY), and Baltimore (MPT).

[30] The visits/people ratio for local public television sites was a mere 1.6, substantially lower than that of local newspaper and commercial television sites.

[31] The large-city radio station websites used to represent this category were those of New York (WABC, WINS, WCBS), Los Angeles (KABC, KFI, KNX1070, KFWB, KSLX, KPIU), Dallas (KRLD, WBAP, KLIF), Chicago (WBBM, WLS), Phoenix (KFYI, KTAR), and Philadelphia (KYW).

[32] The mid-sized-city radio station websites used to represent this category were those of Boston (WRKO), Baltimore (WBAL), Minneapolis (WCCO, AM1500, KFAI), St. Louis (KMOX), Seattle (KOMURADIO, KIRO), Denver (KOA), and Atlanta (WGST).

[33] The local public radio sites used in the calculations were New York (WNYC), Los Angeles (KCRW), Seattle (KUOW), Dallas (KERA), Atlanta (WABE), Chicago (WBEZ), Boston (WBUR), Baltimore (WYPR), and Denver (KCFR).

[34] NPR's visit/people ratio—1.5 to 1—is relatively small, as is that (1.4 to 1) of local public radio stations.

[35] Pew Research Center for the People & the Press, "Online Papers Modestly Boost Newspaper Readership," July 30, 2006.

[36] These sites have an impressive visits/people ratio. At 5.3 to 1, it exceeds the site average for all the traditional news organization categories.

[37] Pew Research Center for the People & the Press survey, March 8, 2006.

[38] The figures are based on dailykos.com, firedoglake.com, wonkette.com, huffingtonpost.com, watchblog.com, crooksandliars.com, mydd.com, and littlegreenfootballs.com.

[39] A strength of the blogs is the commitment of their users. The blogs we examined had a visits/people ratio of 4.7 to 1 which is higher than that of any traditional media category

[40] The ten sites are Gothamist (New York City), Chicagoist, Bostonist, DCist, LAist, Houstonist, Austinist, SFist (San Francisco), Seattlest, and Phillyist.

[41] Philip Meyer, *The Vanishing Newspaper* (Columbia: University of Missouri Press, 2004).

[42] Business Analysis Research Department of the Newspaper

Association of America, June 2005.

[43] Project for Excellence in Journalism, State of the News Media 2007, March 2007.

[44] Cyberjournalist.net, "News Sites Send Each Other Traffic," downloaded June 20, 2007.

[45] These sites were those of the Recording Industry of America, US Chamber of Commerce, Motion Picture Association of America, American Bankers Association, American Farm Bureau, Pharma, Nuclear Energy Institute, Sheet Metal Workers International Association, Biotechnology Industry Association, and Fair Tax Organization.

[46] These sites were those of the American Health Insurance Plans, Edison Electric Institute, AeANet, National Committee to Preserve Social Security and Medicare, United Mine Workers of America, United Brotherhood of Carpenters and Joiners, American College of Physicians, American Association for Justice, American Hospital Association, and American Petroleum Institute.

[47] Frank Magid Association study for the Online Publishers Association, January 2004.

[48] A copy of the report (*The Internet and the Threat It Poses to Local Media: Lessons from News in the Schools*, January 2007) is available at www.ksg.harvard.edu/presspol/carnegie_home.htm.

This report uses Internet traffic data and metrics from Compete SnapShot, a feature offered by the Boston-based market research company Compete, Inc. Compete SnapShot gathers daily Internet activity information from a pool of over two million users by means of various ISPs (Internet Service Providers), ASPs (Application Service Providers), a downloadable toolbar, and opt-in panels. Members of the Compete community anonymously "share clicks"; the daily Internet activity of each user contributes to online traffic estimates and site profiles.

The graphical data, collected for over one million top Internet sites, is based on the activity of U.S.-Internet users only, and is normalized by age, income, gender, and geography scales "to ensure a diverse distribution of user types and to facilitate de-biasing across the data sources." Compete also states that its metrics "are leveraged by some of the largest companies in the U.S. and often cited in publications like *USA Today*, *Wall Street Journal*, and *The New York Times*."

Compete measures Internet traffic patterns in a series of graphs—among them, People Count, Rank, and Visits—over the course of the past year; the graphs referenced in this report span April 2006 through April 2007. People Count is a measurement of unique visitors, determining the popularity of a site. In order to represent what Compete calls "actual human activity," a single user's activity on a given site is counted only once per month for the People Count metrics, despite the number of visits the user makes to the site during that time. The Rank figures are complimentary to those of People Count and use the same statistics to determine the relative significance of a site as compared to others. Compete cites the example of eBay.com attracting 75 million people in March 2007, earning it a ranking as the third largest site on the Internet within the U.S. Visits reflect the number of live interactions a user has with a particular site, and are defined by Compete as follows in their FAQ:

> Visits are initiated when a user enters a site. As the user interacts with the site the visit is live. Visits are considered live until the user's interaction with the site has ceased for a 30-minute period. For instance, User A enters Yahoo at 9:00. User A checks their email and reviews the week's weather forecast. User A then goes to a meeting at 9:30. She returns at 10:30 and checks her Yahoo email again. Since 30 minutes lapsed between her two interactions User A is considered "one person" that made "two visits".

For the purposes of this report, Compete's strengths relative to some other online traffic monitoring services are that it is a free service, distinguishes between domestic and international users, normalizes its data, and discloses rather fully its methodology. Additional information on Compete is available at its website: www.compete.com.

The Joan Shorenstein Center on the Press, Politics and Public Policy

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John F. Kennedy School of Government
Harvard University
79 John F. Kennedy Street
Cambridge, MA 02138

ॐ

Phone: 617-495-8269
Fax: 617-495-8696
www.shorensteincenter.org

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John F. Kennedy School of Government
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