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### Information Technologies and Omnivorous News Diets over Three U.S. Presidential Elections

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## Information Technologies and Omnivorous News Diets over Three U.S. Presidential Elections

Adrienne L. Massanari  
Philip N. Howard

**ABSTRACT.** Technology convergence and rising expectations for interactivity have had a significant impact on the news diets of U.S. voters. While television may appear to be the most important single media in this system of political communication, for a growing portion of the population, news diets are defined by combinations and permutations of secondary media. What explains the changing distribution of primary media choice and the dramatic rise in secondary media? We offer a theory of omnivorous information habits to help explain the rising number of people who make active choices to get political news and information from several media technologies, sourced from multiple news organizations, and then engage with news and information through varied interactive tools. Data from 2000, 2004, and 2008 demonstrate not just the growing importance of secondary media, but the importance of the Internet in particular. Indeed, elections have become occasions in which people make significant changes in their information diets.

**KEYWORDS.** Elections, information habits, Internet, multimedia information retrieval

### *INTRODUCTION*

Over the last decade, there have been several obvious changes in the system of political communication in the United States. Newspaper readership has plummeted, Internet use has skyrocketed, and a segment of the population—which includes many young

voters—has essentially become newsless. Yet, one of the less understood trends has been in the organization of primary and secondary media choices, and the ways in which news diets can be composed of several media, several organizational sources, and diverse ways of interacting with information about political life. During the Presidential elections in 2000,

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one-fifth of the adult population identified something other than television as its primary source of political news and information, and in both 2004 and 2008, one-third of the population did so. In other words, one in 10 U.S. adults stopped identifying television as their primary medium for getting news and information about the Presidential elections. In 2000, 35 percent of U.S. adults had a secondary medium for information about the elections, and in both 2004 and 2008, more than 50 percent of adults had a secondary medium.<sup>1</sup> What explains the changing distribution of primary media choice and the dramatic rise in secondary media? What explains changes in the range of media technologies used, the number of organizational sources consulted, and the growing expectation of online interaction with news and information? How have elections themselves served as occasions for the restructuring in political communication?

To understand contemporary patterns of learning about political life through multiple information technologies, the theoretical reach of political communication analysis must be extended to the variety of sources for information and the range of possibilities for political engagement (Chaffee & Metzger, 2001; Howard, 2005b). Yet, as Bennett and Iyengar argue, contemporary political communication research seems dedicated to “adding new findings to established categories of study such as the ever-popular sub-subfields of framing, priming, agenda setting, and so on” (Bennett & Iyengar, 2008, p. 713). The Internet is an informational tool unlike other mass communication media because it allows content interactivity and narrowcasting. However, some have speculated that the Internet may push people toward informational specialization (Delli Carpini & Keeter, 2002). Researchers often find evidence of partisan self-selection among information-seekers, but it has been difficult to demonstrate whether or not new information technologies support selectivity or omnivorousness. In part, this is because research on self-selection bias has tended to focus on simply whether or not people watch the news on television, not on multimedia news diets, preferences among news organizations, and the ways in which individuals

consume news through online interaction and fact-checking (Mutz, 2006; Prior, 2007).

Indeed, online-only news audiences may become fragmented over time, but evidence suggests that online audiences tend to treat the Internet as an additional research source, and that their informational sophistication tends to improve over time (Hardy, Jamieson, & Winneg, 2009; Howard & Massanari, 2007). Concomitantly, content analysis of blog posts and online news sources reveals that like-minded authors are most likely to link to each other, reference opponents without linking, and have low reliance on traditional newsworthiness criteria for selecting stories to promote (Baum & Groeling, 2008; Hargittai, Gallo, & Jane, 2008; Tremayne, Zheng, Lee, & Jeong, 2006). Democrat partisan sites tend to link to one another and provide off-site links to original news sources, while Republican partisan sites tend to not provide outside references and prefer to keep users on-site. So, much of the research on self-selection among political information consumers tends to singularly privilege television, and much of the research on self-selection among political information producers tends to focus on content references and link structure.

The Internet is often treated like mass communication media such as the television, radio, or newspaper and is primarily examined through survey or experimental research that explores particular software applications. Interrogating political content online is different from watching television news, and our diet of political news should not be treated additively (Tewksbury & Rittenberg, 2009). It is difficult to study social use of the Internet, and many scholars tend to study only one of these aspects at a time: either the choice of Internet media in comparison with other media, the kinds of sources people have in their news diet, or the ways people interrogate political news and information. However, the Internet consists of a wide range of informational tools that not only allow citizens to consume political content from news and campaign organizations, but also allows those citizens to produce their own news stories and opinion pieces. In this way, while studies of broadcast news can look for patterns in audience reception, studying Internet news habits often

involves studying political engagement. Yet how many people really do these things? How do decisions about interacting with political information fit with decisions about media choices and sourcing preferences?

This study compares data about how people consumed news and information about the Presidential elections in 2000, 2004, and 2008.<sup>2</sup> Previously, these data have been used to show that the Internet is now a mainstay of political news and communication habits among citizens in the U.S. (Hardy et al., 2009). Rather than replacing other media for political news and engagement, the Internet is embedded in the context of a multimedia system of communication and a system of political engagement with multiple opportunities and constraints (Rice & Katz, 2004; Stromer-Galley, 2004). First, this study identifies the poorly studied structural changes in primary and secondary media choices being made by U.S. adults over the last three Presidential elections. Second, the current literature on the Internet and news learning habits is reviewed, which does teach us about how particular software applications are used for political news, but does not provide contextual evidence about the broader structure of news diets. Third, we draw from recent scholarship on the Internet and news consumption, Chaffee's work on taste cultures, and contemporary cultural sociology to offer a theory of omnivorousness to help categorize the growing cohort of people who consume political news and information from multiple media, multiple sources, and interact with the information in multiple ways. To test for omnivorous news habits, data from the Pew Internet and American Life project during the last three Presidential elections are analyzed. Statistical models reveal the ways in which demographic and political factors—allowing with election year—have an impact on omnivorous news habits.

### ***INFORMATION TECHNOLOGY AND NEWS DIETS***

Table 1 summarizes some of the most interesting trends in news consumption in three Presidential campaign years. Each year, around

election time, the U.S. adult population is surveyed about how it gets most of its news about the Presidential campaign. Many analysts just report the primary media choice or aggregate media choices by category, and doing so suggests that television is still the overwhelmingly dominant medium of choice.<sup>3</sup> Yet this sort of aggregation obfuscates interesting changes in the pattern of primary and secondary choices for election news. Between 2000 and 2008, television was often reported as the primary media preference for news, but its dominance has slipped over time. By 2004, a growing portion offered newspapers, radio, or the Internet as their primary medium. Indeed, by 2004, the Internet surpassed radio as the most popular alternative to television. But perhaps the most interesting change is in the number of reported secondary media choices.

During the 2000 election season, about one-fifth of the adult population offered something other than television as its primary source of political news, and in 2004 and 2008, about one-third of the adult population offered something other than television as its primary source of political information. In 2000, and even more so in 2004, newspapers were often the secondary media of choice, but in 2008, the Internet was the most prominent alternative to television as a first choice. Interviewers were also instructed to probe for a secondary choice if the respondent only revealed one response. In 2000, just over one-third of the sample offered a secondary media choice, and by 2004 and 2008, over half the sample offered a secondary media choice. In 2000, a study of student media choices suggested that widespread Internet use was unlikely to diminish the use of traditional news media (Althaus & Tewksbury, 2000). This may be borne out by the data in Table 1, though it might be more accurate to argue that widespread Internet use has added to the diversity of news feeds by supporting multimedia news diets.

The national survey data presented in Table 1 suggest that there have been some interesting structural changes in media choice. Between 2000 and 2008, television's dominance as the primary medium of choice for news about the presidential election declined slightly, and a significant portion of the population went from

TABLE 1. How Have You Been Getting Most of Your News about the Presidential Election Campaign?

	2000	2004	2008
First choice			
Television	78.4	67.1	67.2
Newspapers	7.4	13.3	8.6
Radio	7.7	8.0	7.9
Magazines	0.4	1.1	0.5
Internet	4.2	6.6	12.5
Other	1.4	2.4	1.7
Don't know or refuse	0.6	1.5	1.6
Total primary media	100.0	100.0	100.0
Secondary choice			
Television	13.2	19.3	19.6
Newspapers	47.7	43.0	37.0
Radio	22.3	13.8	10.9
Magazines	0.9	3.5	2.9
Internet	13.9	18.0	26.0
Other	2.0	2.4	3.5
Don't know or refuse	0.1	..	..
Subtotal secondary media	35.5	56.6	51.5
No secondary media	64.5	43.4	48.5
Total secondary media	100.0	100.0	100.0
Weighted N	7,028	4,568	6,987

Note: The 2000 sample includes some respondents who were interviewed before the election. The 2004 and 2008 surveys were post-election surveys.

Source: Authors' calculations based on Pew Research Center for the People and Press data from 2000, 2004, and 2008.

relying on one medium to relying on multiple media. What explains the changing distribution of primary media choice and the dramatic rise in secondary media?

### ***MEDIA, SOURCE, AND INTERACTION***

Many people use more than one medium for news and have done so for decades, employing combinations of radio news, television news, newspapers, and news magazines. Chaffee's work in the 1980s revealed the importance of treating news on a Guttman scale—beginning with television, then television and newspapers in combination, and peaking with television news, newspapers, and news magazines. In other words, those who read newspapers tend to watch TV news as well, but those who watch TV news do not necessarily read the newspapers (Chaffee & Schleuder, 1986). While it is reasonable that people who consume lots of political information through one medium might try to do so through the Internet, adding the

Internet to a Guttman scale would have low concept validity. The concept of the Guttman scale relies on users' and respondents' distinction between types of media. It is not simply that the Internet can replace radio or newspapers as the third or fourth most popular choice of media. The Internet replicates content—textual, audio, video—from both new and traditional sources through interactive informational tools. Nonetheless, contemporary research on how people use the Internet for political news and information tends to treat media choice, source choice, and interactivity habits as distinct areas of inquiry.

### ***Choosing Media for Political News and Information***

The first approach to studying news habits and the Internet is by comparing available media choices such as television, radio, and newspaper news. There is significant debate over the impact of choosing to consume news online, relative to

choosing broadcast media. In comparing newspapers, television, and the Internet, it was found that interacting with information online built trust and civic participation, depending on community context (Shah, McLeod, & Yoon, 2001). While this was especially true for younger adults, many are still waiting for the evidence that the new information environment will actually draw more youth into political participation (Delli Carpini, 2000; Xenos & Bennett, 2007). Tewksbury, Weaver, and Maddex (2001) found that in comparison to news readers in the 1996 election, undergraduate news readers in 1998 were less likely to be able to recall and situate news if they had obtained the information online. In a comparison between the print and online editions of *The New York Times*, it was found that student Internet users were less likely to recognize and recall political events (Tewksbury & Althaus, 2000). In contrast, in a study focusing on the Netherlands, gender and level of topical interest explain more about how people consume and retain news than whether the information was presented online or in print (d'Haenens, Jankowski, & Heuvelman, 2004). In part, the divergent conclusions of these studies may be related to sample selection: the Internet users unable to recognize and recall political events were undergraduates at a U.S. university; the population that had no problem retaining political news was made up of Dutch adults. In addition, both the Internet and print media have adapted over time, such that online content is no longer structured like a linear print newspaper, and print newspapers increasingly provide links to online content for further interest. Many of these studies suggest that topical interest is often a greater predictor of political or news sophistication than media choice; however, few of us actually have the narrow dyadic news diets that political communication researchers investigate.

It is conceptually important to distinguish people who actively go online to learn new information from those who go online to find evidence that reinforces their opinion, or from those who accidentally find information while surfing for other content, and, a surprisingly large portion of those who just happen to see the news while on some other informational or

entertainment task online, and are not necessarily looking deliberately or following up with something they learned from another medium (Howard, 2005b). These addenda, however, should probably not diminish the importance of the outcome—learning new things about politics. Chancing across political information is probably not a bad thing. Even with political interstitials online, there is an important distinction between the agency involved in clicking through and following an unexpected news story and the passivity of listening to the news stories selected for broadcast medium. Querying online sources at a computer is not a background activity, but for many respondents the television or radio is often on in the background. In terms of data quality, it is probably of greater concern that most news consumption data do not distinguish between how often an individual tunes in and out of news stories during a reported hour of news consumption, nor how often such self-reported news exposure is actually in the “background” while the respondent is doing other things.

### *Choosing Sources at Election Time*

The second grouping of scholarship on Internet use and news habits concentrates on the kinds of news organizations chosen as sources. Initially, it was argued that the Internet would bring a plethora of alternative news sources into the public sphere, challenging the dominance of mainstream media. Although it is true that alternative news sources have greater organizational capacity and reach with new media technologies such as the Internet, it is hard to comparatively measure the market share or dominant position of news sources. Recently it has been observed that a large portion of Internet users prefer to trust only sources that share branding with trusted offline sources. This is neither surprising, nor does it weaken the claim that all in all there is greater diversity in accessible news sources because so many new sources—from candidate Web sites to Really Simple Syndication (RSS) feeds and blogs—are treated as sources of news (Warnick, 2004). The important factor behind the selection of news sources and positive outcomes in political participation

may be discussing the news, whether through face-to-face or computer-mediated communication (Hardy & Scheufele, 2005). As with other media, Internet users often accept information from political advertisements as a substitute for researching reliable sources (Valentino, Hutchings, & Williams, 2004). Choosing a medium for information may be different from choosing a news organization source for information, but we still come up with shortcuts that help the disinterested avoid politics and help the interested confirm their opinion (Eliasoph, 1998; Ferejohn & Kuklinski, 1990). More important, online experience and frequency of use significantly contribute to ever more sophisticated uses of the Internet, overcoming even socioeconomic status in predicting how active a person is in searching across different topics (Howard & Massanari, 2007).

There are many kinds of sources for political information beyond news Web sites. Local political organizations, the Web sites of politicians in office and candidates for office, partisan and nonpartisan Web sites, and issue-specific organizations all provide content that they—and many readers—consider news. Elsewhere it has been found that the proportion of Internet users who visited at least three types of these Web sites for political information between 1996 and 2002 dropped. Only issue-specific political Web sites have grown in popularity, providing information about specific issues or policies of interest, such as the environment, gun control, abortion, or healthcare reform (Howard, 2005a). However, the organization of political information on campaign Web sites is structured in particular ways. Candidate Web sites provide basic issue positions while avoiding both direct and indirect forms of dialogue, and only the intensity of the campaign battle seems to drive up the quality and quantity of political information on these sites (Stromer-Galley, 2000; Xenos & Foot, 2005).

### *Interacting with Political Content Online*

The third line of inquiry about Internet use and news concerns the forms of interaction people have with political content, including news about campaigns and elections. The final set of

questions has to do with the interactivity that a growing number of citizens are coming to expect out of media and sources. Many people still rely on news editors to prioritize stories and vet content, but a growing number interrogate information—plumbing for further details, comparative contexts, and related stories. This argument is important because others have found cohort-specific connections between using the Internet for political information and levels of civic engagement, interpersonal trust, and life contentment, though the models cover tiny amounts of explained variation (Shah, Kwak, & Holbert, 2001). It remains difficult to demonstrate what causes what; experimental settings reveal that people with a sophisticated argument repertoire are more likely to participate in online debate, and that a sophisticated argument repertoire is one of the consequences of participating in online debate (Cappella, Price, & Nir, 2002).

Chatting online also seems to have a positive impact on participation rates (Hardy & Scheufele, 2005). However, since only one in 10 Internet users ever joins political discussion groups or chats about politics online, it is important to move beyond the use of software-specific Internet applications to assess the multiple, varied forms of engaging political debate and interacting with political information online (Rainie, Cornfield, & Horrigan, 2005). A significant amount of the political news and information that people consume comes from highly interactive tools, but there are quite a few of these tools, and different tools are popular at different points in time.

All in all, there is also a tendency within political communication scholarship to either confound media choice, source choice, or interactivity habits of Internet users, or to focus on one of these at the expense of the others. Connecting these three lines of inquiry requires a theory of news consumption that helps explain the contemporary situations in which some U.S. adults identify a campaign or special interest group Web site as a source of news, or situations where some people rely on television stations as sources of news, but expect to be able to interact with—indeed manipulate—content from that news organization by going online. However, there are important reasons to situate

the way people interact with political information along with their choices of media and choices of organizational source. Since recent scholarship suggests that the diversity of media choices, source choices, and interaction with political information is on the rise, we offer a theory of “omnivorous” news habits to help explain contemporary trends of primary and secondary news consumption.

### **OMNIVOROUS CONSUMPTION OF POLITICAL NEWS AND INFORMATION**

There is growing evidence that Internet use has a direct effect on patterns of information acquisition, but a more tenuous connection to offline political engagement (Xenos & Moy, 2007). The Internet is a unique medium for simultaneously consuming and producing political content, learning the news, and expressing opinion. Part of the challenge of studying the Internet lies in understanding what Chaffee called the structure of communication “taste cultures” that are less relevant in traditional mass communication’s analytical approach to broadcast media (Chaffee & Metzger, 2001).

In recent years, cultural sociology has become an important subdiscipline because it systematically, yet holistically, treats phenomena that many social scientists abandon as being too complex to unravel. Moreover, cultural sociology has helped advance political communication scholarship by providing some theoretical grounding for understanding trends in news consumption.<sup>4</sup> Culture is often referred to as a black box of case-specific attributes that do not fit into parsimonious models of how race, class, or gender may explain behavior and attitudes. One of the interesting theories about cultural change concerns the social construction of taste (Bourdieu, 1984). Several scholars have argued that musical, culinary, or literary tastes once were definable as highbrow, middlebrow, and lowbrow, such that snobs only liked a narrow selection of music, food, and literature genres. In recent years, however, there has been a shift in taste. Whereas highbrows once stuck to this narrow range of genres, now highbrows like to

sample as many genres as possible (Peterson & Kern, 1996). This growing cohort of cultural omnivores appreciates many forms of art and participates in a wide range of artistic activities. They reach far and wide for cultural content through multiple sources and over multiple media (Griswold & Wright, 2003; Peterson & Ryan, 2003). Elsewhere, cosmopolitan individuals have been shown to use the Internet to learn about political alternatives and distant cultures, but this behavior was difficult to explain, perhaps because the Internet itself was treated as an “agent of cosmopolitan-ness” (Jeffres, Atkin, Bracken, & Neuendorf, 2004; Tarrow, 2001). While there may be some variation across advanced democracies, the information omnivore is not confined to traditionally respected sources (Warde, Wright, & Gayo-Cal, 2007). Omnivorousness may be a useful metaphor for describing the growing cohort of multimedia news consumption.

A theory of omnivorousness may help explain some of the recent trends in how people acquire and interact with political news and information. Regular Internet use may expose people to a wider range of news sources, provide more interactivity with those sources, and encourage an interest in information about campaigns and elections from other media. Thus, we suggest that a news omnivore can be defined as someone who uses more media on average, chooses from a greater variety of sources on average, and interrogates political news and information by using more than the average number of interactive online tools. News omnivores do more than simply consume lots of news stories, they use more sources, involve more technologies, and interact with more information resources.

Omnivorous news habits may take different forms. Some people prefer the name-brand news organizations as sources, but choose to use Internet media over television. Others will only ever use television, preferring to try different sources but only on television. Still others will actually learn most of their political information interactively, moving between media on particular stories, and learning from candidates and issue groups instead of traditional news sources. This distinction between news organizations is also increasingly blurred, with local

news television channels providing Web site content through transcripts of stories, and major national newspapers providing online editions with short video documentaries. These online news stories are sometimes assembled by different news teams, and other times are assembled by the print news team but structured in such a way as to provide more depth and interactivity than allowed in print media (Boczkowski, 2004).

There are several important reasons for conceptualizing political news and information this way. First, while many scholars continue to use analytical categories like television, newspaper, and Internet, it is increasingly clear that people who consume political news and information do not make the same distinctions. The television news may be on but in the background noise of the household; the deliberate search for political news on the Internet is a more involving exercise than passively receiving a broadcast from a mass medium. Many people rely on blogs, special interest groups, and political candidates for their news. Television and newspaper stories often refer to further details online, while many Internet users seem to prefer visiting the Web sites of established offline news organizations. A significant amount of political learning is done through information networks that bridge or bond communities (Norris, 2002). It is not simply that there is a new medium—the Internet—in our toolkit for consuming news. It is important to theoretically distinguish between the types of choices people face when pulling from this modern toolkit: choices of which media to use, which sources to rely on, and the level of interaction with news to pursue. People who choose multiple media, multiple sources, and multiple ways of interacting with political information can be said to have omnivorous news habits.

### **METHOD AND DATA**

The consumption of political news and information in the U.S. peaks during major political crises and presidential elections. To test for media omnivorousness, data from random digit dial, national samples collected by the Pew Internet and American Life Project<sup>5</sup> and the Pew

Center for the People and the Press<sup>6</sup> are analyzed. These organizations fielded surveys on technology, news habits, and political participation in the month leading up to each presidential election. Survey research suggests that news consumption in election years with no presidential race is different from the patterns in years where there is a presidential race. For the sake of continuity and comparability, this analysis proceeds with data from the 2000, 2004, and 2008 election years.

Each sample is of U.S. adults, 18 years and older, and most of the data were collected in the weeks immediately before or after an election day. Results for the 2000 survey are based on telephone interviews conducted under the direction of Princeton Survey Research Associates among a nationwide sample of 8,378 adults, 18 years of age or older, between October 10 and November 26, 2000. For results based on the total sample during October 10 and November 19 ( $N = 7,426$ ), one can say with 95 percent confidence that the error attributable to sampling and other random effects is plus or minus 1.5 percentage points. For results based on online users ( $N = 4,186$ ) during this period, the sampling error is plus or minus 2 percentage points. For results based on election news consumers ( $N = 1,435$ ) during this period, the sampling error is plus or minus 3 percentage points. For results based on online users ( $N = 2,876$ ) during the period of October 10 through November 9, the sampling error is plus or minus 2 percentage points. For results based on election news consumers ( $N = 841$ ) during this period, the sampling error is plus or minus 4 percentage points. For results based on all adults ( $N = 3,234$ ) during the period November 10–26, the sampling error is plus or minus 2 percentage points.

Results for the 2004 survey are based on the findings of a daily tracking survey conducted by Princeton Survey Research Associates between November 4 and November 22, among a sample of 2,200 adults, aged 18 and older. For results based on the total sample, one can say with 95 percent confidence that the error attributable to sampling and other random effects is plus or minus 2 percent. For results based Internet users ( $N = 1,324$ ), the margin of sampling error is plus or minus 3 percent.

Results for the 2008 survey are based on the findings of a daily tracking survey conducted by Princeton Survey Research Associates between November 20 and December 4 among a sample of 2,254 adults, aged 18 and older. For results based on the total sample, one can say with 95 percent confidence that the error attributable to sampling and other random effects is plus or minus 2 percent. For results based on Internet users ( $N = 1,591$ ), the margin of sampling error is plus or minus 3 percent. Several of these  $N$  values change when census weights are applied.

The dependent variables of omnivorous media, source, and interactivity habits were constructed conservatively, based on inspection of the means reported in Table 2. The first step in testing for omnivorous news habits is to descriptively explore patterns in daily media choice, the selection of sources, and habits of interacting with political news and information. To explore omnivorous news habits, Table 2 compares the media sources, choices, and forms of interaction that U.S. adults had with political news and information during the 2004 election season.

A *media omnivore* is operationally defined as someone reported using two or more media

for political news and information. The options included television, radio, newspapers, magazines, the Internet, and an "other" category. A *source omnivore* is defined as someone who has chosen five or more different organizational sources for political news and information. Other research has suggested important differences between the content originating with the same news organization through different media, so these remained distinct. For example, the televised ABC evening news and ABCnews.com were coded as two separate sources. An *interactive omnivore* is defined as someone who reported doing five or more interactive tasks with either general or political news and information.

Across each of the surveys, the number of media from which respondents could choose remained constant. Over time, however, the Pew surveys asked respondents about a wide range of organizational sources for news about campaigns, elections, and politics. Sometimes a particular blog, Sunday morning talk show, or radio broadcast was named. Given that the prominent branded news sources change from election to election, this makes sense, so we created an index based on the number of named

TABLE 2. Media, Sources, and Interactivity for Political News and Information 2000–2008

	2000	2004	2008
<b>Media choices</b>			
Mean number of media	1.35 (SD = .488)	1.60 (SD = .517)	1.53 (SD = .527)
Media omnivores, percent choosing two or more	35.5	61.8	54.8
Number of media respondents could choose from	6	6	6
<b>Source choices</b>			
Mean number of sources	2.13 (SD = 3.297)	5.70 (SD = 3.416)	3.42 (SD = 3.411)
Source omnivore, percent choosing five or more	20.0	58.5	30.2
Number of sources respondents could choose from	28	44	23
<b>Interactivity choices</b>			
Mean number of interactive tools	1.50 (SD = 1.945)	3.31 (SD = 5.078)	3.62 (SD = 4.498)
Interactivity omnivore, percent choosing five or more	32.8	27.8	30.2
Number of online interactivity options respondents could choose from	11	29	30
Weighted N	6,546	4,568	6,987

Note: In 2000, respondents were only queried about the diversity in news sources for their Internet use, and the  $N$  of respondents for media choices in that year was 7,028. For media choices, the percent choosing two or more media in the year 2000 is the same as the figure reported in the previous table, because respondents were only offered two media choices in that survey.

Source: Authors' calculations based on Pew Research Center for the People and Press data from 2000, 2004, and 2008.

organizational sources that a respondent could have signaled some familiarity with during the Pew interview. Similarly, the range of ways an Internet user can interact online with political news had grown significantly, with options in later years simply not available in previous years. Combing through the Pew survey instrument also allowed us to compose an index of the full range of ways respondents could have signaled their interaction with political news through e-mail listservs, blogs, or Twitter, for example. Even though the list of possible organizational sources and interactivity options was lengthy and changing, the index distribution revealed that five source choices and five interactivity options was a useful threshold. Table 2 reveals the different ways that respondents may display different forms of omnivorousness. For some people, an omnivorous news diet may mean using many media, while for others it may mean using a few media but consulting a wide range of sources. This threshold allowed us to distinguish between people who chose to get news from a few organizations or do a few things online from those who really do have multiple ways of engaging with news.

### FINDINGS AND ANALYSIS

In terms of daily media choices, television is still most important as the primary medium of choice for two-thirds of U.S. adults. To assess the public's media choices, respondents were asked about whether they watched television news or read a newspaper yesterday. The category of radio use was created from a question about which media were the source of news about the presidential campaign. Respondents were asked how often they went online for news and information about each election, and respondents who did so more than once a day were grouped with those who did this on a daily basis. Other media for political information—such as documentaries, films, and candidate literature—are not used often enough to be included in this index of daily media choice.

Table 2 presents data on changing media choices, source choices, and interactivity choices specifically for the three most recent

presidential elections in the United States. In important ways, presidential elections are the occasions in which media diets can change: Political content is plentiful over traditional media, and campaign organizations experiment with new information technologies. In terms of daily choices between media—television, newspapers, radio, and the Internet—there are a few important differences between the population of Internet users and nonusers. For the nationally representative population surveyed, the mean number of media used, the diversity of news sources consulted, and the number of ways of interacting with news and information increased after the 2000 election. Indeed, media and source diversity peaked with the 2004 election, while the mean number of interactive tools that citizens used to interrogate news about the campaigns has grown with each passing election. In 2008, when respondents were not offered the choice of additional media, 51.5 percent of them indicated using a secondary form of media (see Table 1). However, Table 2 shows that when offered the possibility of indicating additional media choices (out of a maximum of six), 54.8 percent of respondents indicated using at least two media.

To distinguish source omnivores, respondents who regularly or sometimes consulted these sources were separated from those who did so hardly ever or never. Television access type refers to news sources from local, network, or cable channels. Although the survey offered a dozen sources of news and information to respondents, interviewers were instructed to always offer local television news; national nightly network news on CBS, ABC, or NBC; and cable news channels such as CNN, MSNBC, or the Fox News cable channel before offering the other options. When the other options were offered, they were offered randomly. This interview strategy privileged the first three options. Respondents were also asked about specific television programs as sources, such as *NewsHour* and Sunday morning news shows, and specific newspaper and news magazines, such as *USA Today* and *The Atlantic Monthly*. Only a few radio sources were named, including National Public Radio (NPR), Rush Limbaugh, and Howard Stern. By 2008, 30.2 percent of the

population had regular news diets fed by five or more sources.

Building on recent findings about how users define online news sources, these are organized by type, partisanship, and brand. For example, respondents were queried about their general choices of news sources online, from the news sites of commercial online services such as America Online, major news organizations such as CNN or *The New York Times*, local news organizations, Web sites that specialize in politics, Web sites set up by the candidates themselves, issue-oriented Web sites, and the Web sites of state or local governments.

Partisan Web sites included the Bush/Cheney and Gore/Lieberman Web sites in the 2000 survey, and the Bush/Cheney and Kerry/Edwards Web sites in 2004. Respondents who viewed these Web sites were pooled with respondents who visited the Republican and Democratic National Committee Web sites, or who visited Web sites that provide information about specific issues or policies such as the environment, gun control, abortion, or healthcare reform. Finally, respondents were asked about specific news Web sites by name. The list included a range of news organizations, from well-known ones such as ABCnews.com, CNN.com, and the Wall Street Journal Online, to online news and opinion sites such as Slate.com and the National Review, and online columns and blogs such as Talking Points Memo, Daily Kos, or Instapundit. Between 2000 and 2004, the proportion of people who visited two or more general online sources, partisan sources, or name-brand news sources grew significantly. At the same time, the portion of Internet users who did not research political information regularly or occasional basis diminished.

In terms of interaction with information sources, an index of tasks was composed with several questions from the survey. Respondents were queried about many different kinds of interaction with political news and information, from signing up for news bulletins by e-mail to researching candidate statements on key issues and forwarding political cartoons to family and friends. As political campaigns and news agencies developed more complex tools for querying public databases, viewing content,

and interacting with news stories, the range of options offered to survey respondents grew. During the survey in 2000, respondents could signal that they had done any one of 11 different interactive things online. By 2008, there were 30 possible ways of interacting with information about campaigns and elections, ranging from blogging and reading blog posts, to receiving campaign newsletters and using social networking software to link to affinity groups. Internet users were asked if they had ever created content for the Internet, helped to build Web sites, created online diaries, or posted thoughts on an online bulletin board or other online community. They were asked if they had sent or received an invitation to a meeting or party using a service like Meetup.org, or if they had created or read a blog. Some of these activities may or may not have involved political issues, but many television news programs, newspapers, and radio shows have a significant amount of content that is public interest but barely newsworthy. Thus, activities like blogging are a means of producing content for others, and may not be expressly political but are important forms of civic engagement (see Appendix A for a complete description of the index questions).<sup>7</sup>

Other forms of interactivity are expressly political. For example, respondents were asked if they had ever participated in online discussions about the elections or online polls, or had dug for more information about candidates' positions on the issues. Many of the questions also relate to the kinds of information that respondents extract from Web sites and then forward along networks of family and friends. Such information ranged from endorsements or ratings of candidates by political organizations, video clips and jokes about the candidates or the election, and information about when or where to vote on Election Day. With a growing number of ways to interact with political news and information, the mean level of interactivity increased over time. By 2008, some 30.2 percent of the population had regular news diets that included five distinct ways of interacting with political news and information. Some of the variation in these numbers can be explained by the range of answer options offered in a given year, so over time, we can predict who

is using more media for news and information about elections, consulting with a greater number of news organizations, and finding ever more ways of interacting with news content.<sup>8</sup>

To help explain omnivorous news habits, Table 3 offers models for media, source, and interactivity choices. Although it is common to report the coefficients from the logistic regression of independent variables onto a dependent variable, the exponentiated coefficients are the more intuitive odds ratios. The odds ratio is the probability that one variable, controlling for all the other factors in a model, will correctly predict a person's positive response to a question. For example, in the model for explaining omnivorous media choices, the odds that a respondent with a bachelor's degree used multiple media for political news and information during a recent presidential election are 32.2 percent greater  $[(1.322 - 1) \times 100]$  than the odds for a respondent who did not complete a bachelor's degree. Thus, it is even possible

to predict the odds that a particular respondent had omnivorous news habits in media, source, or information interactivity. The odds that a 30-year-old woman with a bachelor's degree reported interacting with political content—if she earned less than \$50,000 a year, was African American, and self-identified as a Democrat—were 6:1 in the year 2000. Over subsequent elections, however, the odds that similar respondents interacted with political information improved significantly, from 89:1 in 2004 to 110:1 in 2008.<sup>9</sup>

To help isolate the effect of experience online on interest in political news and information, the models control for additional demographic and status variables that might reasonably come to bear as explanations for omnivorous news consumption. We include variables of age, gender (with female as the reference category), and race (with White as the reference category), and standard socioeconomic variables such as income and education. The models also control

TABLE 3. What Explains Omnivorous News Habits? Logistic Regression Models for Omnivorous Media, Source, and Interactivity

	Media choice		Source choice		Interactive choice	
	Log odds	S.E.	Log odds	S.E.	Log odds	S.E.
CONSTANT	0.084***	0.075	0.118***	0.089	0.070***	0.107
DEMOGRAPHICS						
Age	1.008***	0.001	0.972***	0.002	0.964***	0.002
Gender (female as reference)	0.891*	0.043	0.792***	0.052	0.739***	0.061
Race (White as reference)						
African American	0.840*	0.075	0.875	0.090	0.774*	0.109
Asian American	0.880	0.167	1.005	0.178	0.527**	0.232
Other	1.020	0.098	1.026	0.120	0.991	0.143
SOCIO-ECONOMIC STATUS						
Income (\$50k or More)	1.175**	0.047	1.914***	0.054	2.151***	0.063
Education (B.A. or more)	1.322***	0.047	2.344***	0.055	2.711***	0.064
POLITICS						
Party (Independent or no party as reference)						
Republican	1.171***	0.052	1.242***	0.064	1.551***	0.074
Democrat	1.009**	0.052	1.447***	0.063	1.402***	0.076
Election year (2000 as reference)						
2004	12.679***	0.058	29.127***	0.068	14.957***	0.076
2008	8.512***	0.052	8.206***	0.065	18.477***	0.075
Nagelkerke R <sup>2</sup>	0.287		0.375		0.359	
Unweighted N	16,904					

\*\*\*Significant at 0.001; \*\*significant at 0.010; \*significant at 0.100.

Source: Authors' calculations based on Pew Research Center for the People and Press data from 2000, 2004, and 2008.

for party (declared Independent or offer no party preference as the reference category) and election year (2000 as the reference category). Respondents who declare as Independent but who “lean” Republican or Democrat were classified as being Republican or Democrat. Logistic regression models are most appropriate because the dependent variables are binaries.

In early rounds of exploring these data, we used interval variables for income and years, but to seek a sensible, parsimonious model, we made both income and education dichotomous variables. Both of these variables had clear threshold effects at the level of college education and an annual household income of \$50,000. We also explored the possibilities of doing different models for each year, but found that combining data and holding election year constant was also a good way to provide a more parsimonious explanation for these data. In addition, we tried forcing data into linear regression, but found better explanatory power when we constructed an index where the data were dichotomous (respondents were either a source, media, or interactive omnivore or they were not). As a result, we also changed our statistical test to a logistic regression, which more accurately models data where the dependent variable is dichotomous.

### *Modeling Omnivorous Media Choices*

According to the model on media choices, being older, wealthier, and more educated are strong statistically significant predictors of using multiple media for election news. Being male or African American decreases the odds that a respondent would have multimedia news diets. Among the political variables, any respondent with a party affiliation is more likely than those in the reference category—who have no party preference—to have multimedia news diets. Interestingly, Republicans are the most likely, in comparison to other party affiliations, to have multimedia news diets. Over the three presidential elections studied here, the single largest statistically significant effects are the election year in which respondents were queried about diversity in their media diet. If a respondent was queried about his or her news diet in 2004, that was when he or she was most likely to

report having a multimedia news diet. One might expect that 2008 would be the big statistical predictor of whether or not people made diverse media choices, since this was year in which the competition for the office of President pitted two incumbents and saw Barack Obama’s impressively branded campaign. Yet, holding other factors constant, 2004 was the Presidential election year in which people most sought out diverse sources; it might have been that contentious debate over the U.S. involvement in Iraq or debates over the outcomes of the 2000 race inspired people to look for more diverse sources. Overall, this model explains 29 percent of the variation in the sample.

### *Modeling Omnivorous Source Choices*

The model for explaining which respondents consult multiple sources for news and information revealed statistically significant, negative effects for age and being male. Being older or being male means the respondents in this sample were less likely to have much diversity in their news sources. There were no statistically significant race effects, and education proved to be the strongest socioeconomic variable predicting whether a respondent used multiple news sources at election time. Among the party preferences, Democrats were mostly likely to report using several news sources. However, the single strongest effect was whether or not respondents were asked about their news sources during the 2004 election. The 2004 election was also important in the model for source choices. In that year, this representative sample of U.S. voters seemed to consume news from the widest range of sources, more than they had in 2000 but also more than they did in 2008. Overall, this model explains 38 percent of the variation in the sample.

### *Modeling the Interactive Omnivore*

Once again, older respondents and men are less likely to report omnivorous news habits, and are less likely to interact with political content online. African and Asian Americans are much less likely than Whites to have used many of the interactive tools for engaging with political content. These effects can be overcome, however, by other factors such as having a college degree,

earning more than \$50,000 a year, or holding a preference for one of the two main political parties. Logically, the effect of election year is strongest in Model 3. Relative to 2000, the Internet was such an important part of political communication in 2004 and 2008 that these election years are the strongest statistically significant effects in the model for interaction with news. Overall, this model explains 36 percent of the variation in the sample.

### *Demographics, Status, and Politics*

Across all the ways of assessing an omnivorous news diet, age positively contributes to media choice more than source or interactive choices. This is likely because older respondents grew up with more exposure to radio, magazines, and newspapers as regular media. Being older makes it less likely that a respondent will have multiple organizational sources for news, and less likely that they will be interacting with news online. Gender differences are clear here, with female respondents more likely to have multimedia news diets, news sources, and interactivity experiences. Males tend to have less diverse media, source, and interactivity experiences. Race is rarely a statistically significant effect in these models, but where it does appear significant, it is in reference to respondents who reported being White—a consistently negative effect.

Consistent with other findings on the impact of socioeconomic status on technology use, income and education are strong positive predictors of multimedia, multisource, and interaction with news. Moreover, education is consistently a larger positive effect than income, revealing that education can overcome wealth as a predictor of omnivorous news diets. Republicans, more than Democrats, seem to use a few more media and interact with political information at election time. But Democrats, more than Republicans, seem to rely on more sources for their news. All other factors being equal, however, it is interesting that education and income are generally stronger effects than having a party affiliation.

Perhaps most interesting, the election years themselves prove to be among the most important predictors of media, source, and

interactivity omnivorousness. The election in 2004 was a time in which the major structural change in political communication took the form of a rise in media and source omnivorousness. Compared to the elections in 2000 and 2004, it was the 2008 election year that saw the greatest boost in interaction with news and information. It is likely that the aggressive use of new information technologies by political campaigns and news agencies actually had the effect of diversifying news diets. In 2004, U.S. voters were hungry for diverse media sources in their diet. In 2008, U.S. voters were eager to use information technologies to interact with news about campaign politics.

### *CONCLUSION*

Drawing from several theoretical traditions, we offered a theory of omnivorous news diets to help explain trends in primary and secondary media choice, and the impact of information technologies on news consumption. Over time, a growing segment of the population is increasingly interested in having multiple ways of engaging with political news and information, over several media, from several sources during elections. Such habits are most noticeable during elections with the excitement of political competition, and it is likely that they dissipate somewhat between elections. Increasingly, the Internet is a mainstay of political news and communication habits among U.S. adults, but as an important secondary, supplemental medium. This secondary status is still crucial to understanding the structure of contemporary news choices, however, because it has affected the way we construct our news diets with each major election. Even though a small proportion of U.S. citizens is dropping out of public life by not actively consuming news, information technologies have also created a news environment for a growing proportion of the public to improve the diversity of their news diet.

Anecdotally, news managers report that the biggest change in news consumption is in the fact that so many people now have Internet access from work. Whereas U.S. citizens used to take in political news through nightly news broadcasts at home, a growing number consume

news during the workday.<sup>10</sup> Knowing that a growing segment of the population is omnivorous, the next step may be to test the possibility that this blending of news diets is made possible through work place connectivity. Even the courts are beginning to recognize that media consumption is no longer so monolithically dominated by television. In *FCC v. Fox Television Stations*, Justice Thomas wrote that “traditional broadcast television and radio are no longer the ‘uniquely pervasive’ media forms they once were” (Federal Communications Commission et al., Petitioners v. Fox Television Stations, Inc. et al., 2009, par. 7).

Indeed, the elections themselves are distinct occasions in which the public evaluates the options for media, sources, and interactivity with political content. Distinguishing between the kinds of choices people make when they consume political news helps to explain these changes; they choose from a selection of media, a range of sources, and have numerous tools for interrogating, responding to, and sharing political news and information. Democrats seem to be more likely to consult with several news agencies for their diets; Republicans seem to be more likely to use multiple media; both Democrats and Republicans seem to be more likely than Independents to interact with political content.

It is time to treat information technologies as deeply embedded features of contemporary political communication in advanced democracies. Research on information technology and news consumption must become a more holistic study of news diets, and a line of inquiry that distinguishes between the multiple technologies people have for engaging with political information. Political omnivores may not keep up their diverse media diets between elections, but these political contests are the important events during which media diets are often reconfigured. The statistical models presented here reveal much about the degree to which such reconfiguring has occurred since the 2000 election year. Indeed, whereas content analysis of blog posts, Web site links, and news story references may reveal a growing specialization in content, this research demonstrates that a growing segment of the population is diversifying news diets. The layering of primary, secondary, and supplemental media

may be holding specialization tendencies in check, but allowing omnivorousness tendencies to flourish.

Political omnivores are clearly an important part of the American electorate. In future studies, we could further explore the dimensionality of omnivorousness to better understand how individuals fall along this continuum, perhaps differentiating between offering models for those who are only slightly more likely than average to consume different political sources/media types and those who are significantly more likely to seek out a variety of content and sources. In addition, further explorations into the ways in which political ideology (the choices made by strong conservatives versus more moderate conservatives, for example) impacts omnivorousness might prove valuable.

## NOTES

1. Authors' calculations based on Pew Research Center for the People and Press data from 2000, 2004, and 2008.

2. For replication data, readers are invited to visit the author's Web page at <http://faculty.washington.edu/pnhoward/>.

3. This trend may have been subject to interviewer effects, as some interviewers would have probed more deeply than others. However, interviewers were given the same set of instructions each year, and the survey was organized by the Princeton Research Associates each year. Interviewers were required to note a primary media choice, and were asked to probe for a secondary media choice. They were not instructed to rotate options, however, and offering television first may have actually positively biased the response rate for that answer option.

4. See, for example, Bennett and Iyengar (2008) or the special collection of Political Communication edited by Michael Schudson on the contributions of cultural sociology to the study of political communication.

5. See <http://www.pewinternet.org>.

6. See <http://www.people-press.org>

7. Questions for each year of data collection changed, sometimes slightly, and sometimes more significantly. In constructing the indices, we attempted to include equivalent questions wherever possible. The Media Choice index for 2000 consisted of the answer to this question: “How have you been getting most of your news about the presidential election results and questions about who won? From television, from newspapers, from radio, from magazines or from the Internet.” In 2004, the Media Choice index consisted of responses to the following question: “How have you been getting most of your news

about the presidential election campaign? From television, from newspapers, from radio, from magazines, or from the Internet?" In 2008, the question became: "How have you been getting most of your news about the November elections—from television, from newspapers, from radio, from magazines, or from the Internet?" See the Appendix for lists of the Source Choice Index and Interactive Index questions.

8. Data about voting habits and Internet use is known to suffer from an over-reporting problem due to the social desirability of affirming good habits with survey interviewers. This research assumes that such over-reporting is present but constant between elections.

9. In this example from the election year in 2000, the odds = 0.070(Constant) \* 0.964(Age) \* 0.739(Female) \* 0.774(African American) \* 0.527(Asian American) \* 0.991(Other) \* 2.151(Income \$50k or More) \* 2.711(Education BA or More) \* 1.551(Republican) \* 1.402(Democrat) \* 14.957(2004 Election Year) \* 18.477(2008 Election Year) and since  $e^{(0)} = 1$ , the odds = 0.070(Constant) \* 0.964(30) \* 0.739(0) \* 0.774(1) \* 0.527(0) \* 0.991(0) \* 2.151(0) \* 2.711(1) \* 1.551(0) \* 1.402(1) \* 14.957(0) \* 18.477(0).

10. The survey evidence presented here was collected around election time, when public attention turns to politics. Along with the growing omnivorousness among a portion of the public is a segment that reports getting no news. On an average day—during the rest of the year—some 19 percent of survey respondents in 2008 reported getting no news (Pew Research Center for the People and the Press, 2008).

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**APPENDIX A: QUESTIONS  
COMPRISING THE SOURCE  
CHOICE INDEX AND  
INTERACTIVE INDEX FOR  
2000, 2004, AND 2008**

The Source Choice index in 2000 consisted of the following questions (1 point assigned for each “yes” answer):

1. Where do/did you go most often for news and information about the 2000 elections? Answers: News sites of commercial online news orgs (AOL), Web sites for news organizations (CNN.com, etc), Web sites of local news organizations, Web sites specializing in politics, Web sites set up by candidates themselves, issue-oriented Web sites, Web sites for state/local government, some other source, DK/Ref. (1 point assigned for each answer—up to 8 responses allowed)

1 point for each “yes” answer to the following questions:

2. Did you ever get election news from the Web sites of the Broadcast TV networks—ABC, NBC or CBS?
3. Did you ever get election news from the Web sites of national newspapers such as *The Washington Post*, *The New York Times*, or *Los Angeles Times*?
4. Did you ever get election news from the Wall Street Journal Home Page?
5. Did you ever get election news from C-SPAN’s Web site?
6. Did you ever get election news from the MSNBC.com?
7. Did you ever get election news from the CNN.com?
8. Did you ever get election news from the Web sites of national news magazines such as *Time* or *Newsweek*?
9. Did you ever get election news from the online-only magazines such as Salon or Slate?
10. Did you ever get election news from the PBS Online?
11. Did you ever get election news from the Web pages of the House of Representatives, the Senate, or the White House?
12. Did you ever get election news from the AOL News Channel?
13. Did you ever get election news from the news features on Web sites like yahoo.com or msn.com?
14. Did you ever get election news from the Web sites of special interest groups?
15. Now thinking about some campaign Web sites, do or did you ever go onto the Web site of a candidate or campaign to get news or information about the 2000 elections?
16. Now thinking about some campaign Web sites, do or did you ever go onto the Gore or Lieberman campaign Web site to get news or information about the 2000 elections?
17. Now thinking about some campaign Web sites, do or did you ever go onto the Bush or Cheney campaign Web site to get news or information about the 2000 elections?
18. Now thinking about some campaign Web sites, do or did you ever go onto the Rock the Vote Web site to get news or information about the 2000 elections?
19. Now thinking about some campaign Web sites, do or did you ever go onto the Voter.com Web site to get news or information about the 2000 elections?
20. Now thinking about some campaign Web sites, do or did you ever go onto the Web sites of the Democratic and Republican National Committees to get news or information about the 2000 elections?

The Source Choice index for 2004 consisted of the following questions:

1. Do you get most of your news about the presidential election campaign from: Local news, ABC, CBS, NBC, CNN, MSNBC, Fox Cable news, CNBC (1 point assigned for each answer—up to 8 responses allowed).
2. Where do you go online most often for news and information about the 2004 elections? News sites of commercial online news organizations (AOL), Web sites of news orgs (CNN.com, etc), Web sites of local news organizations, sites specializing in politics, Web sites set up by candidates themselves, issue-oriented Web sites, Web sites state/local government, or some other source (1 point assigned for each answer—up to 8 responses allowed).

1 point for each “yes” answer to the following questions:

3. The Kerry/Edwards campaign Web site to get news or information about the 2004 elections?
4. The Bush/Cheney campaign Web site to get news or information about the 2004 elections?
5. The Web sites of the Democratic and Republican National Committees to get news or information about the 2004 elections?
6. Do you ever visit Web sites that provide information about specific issues or policies that interest you, such as the

environment, gun control, abortion, or healthcare reform?

How often do you get news or information from the following sources? (1 = regularly, 2 = sometimes, 3 = hardly ever/never, 9 = dk/ref)—1 point for each “regularly” or “sometimes” answer:

7. Local television news
8. National nightly network news on CBS, ABC, or NBC
9. Cable news channels such as CNN, MSNBC, or the Fox News CABLE Channel
10. National Public Radio (NPR)
11. C-SPAN
12. *NewsHour* with Jim Lehrer
13. Late night TV shows such as David Letterman and Jay Leno
14. Morning TV shows such as *Today*, *Good Morning America*, or *The Early Show*
15. *The Daily Show* with Jon Stewart
16. Sunday morning news shows such as *Meet the Press*, *This Week*, or *Face the Nation*
17. Rush Limbaugh’s radio show
18. Howard Stern’s radio show
19. A local daily newspaper
20. The print edition of a national daily newspaper, such as *The New York Times* or *USA Today*
21. News magazines such as *Time*, *U.S. News*, or *Newsweek*
22. Business magazines such as *Fortune* and *Forbes*
23. Magazines such as *The Atlantic*, *Harper’s*, or *The New Yorker*
24. Political magazines such as *The Nation* or *The New Republic*
25. The news pages of Internet service providers such as AOL News or Yahoo News
26. Network TV news Web sites such as CNN.com, ABCnews.com, or MSNBC.com
27. Web sites of major national newspapers such as the USA Today.com, New York Times.com, or the Wall Street Journal online
28. The Web sites of your local newspaper or TV stations
29. Other kinds of online news magazine and opinion sites such as Slate.com or National Review

30. Online columns or blogs such as Talking Points Memo, the Daily Kos, or Instapundit

The Source Choice index for 2008 consisted of the following questions:

1. Did you get most of your news about the November elections from...? Local news, ABC, CBS, NBC, CNN, MSNBC, Fox Cable, CNBC (1 point assigned for each answer—up to 8 responses allowed).

1 point for each “yes” answer to the following questions:

2. Portal news services (Google/Yahoo)
3. Network news web sites CNN/ABC/MSNBC
4. Web sites of major newspapers (NYT, Wall Street Journal, etc.)
5. Local news orgs
6. Issue oriented Web sites
7. State/local gov’t sites
8. Alternative news organizations (Alternet.org/Newsmax)
9. International news organizations
10. Radio (Web)
11. News satire (The Onion, etc.)
12. Fact checking sites
13. Blogs covering news, politics, or media
14. Others’ commentary on newsgroup, Web site, blog
15. Visited Obama/Biden site for news or info
16. Visited McCain/Palin site for news or info

The Interactive Index for 2000 consisted of the following questions:

1. Do you ever look for news or information about politics and the campaign online? (1 point for a yes answer)
2. Yesterday, did you look for news or information about politics and the campaign? (1 point for any yes answer)
3. How often do/did you go online to get news about the elections? (1 = More than once/day, 2 = Everyday, 3 = 3–5 days/wk, 4 = 1–2 days/wk, 5 = less often, 6 = no or never—1 point for answers 1 through 5)

1 point for each “yes” answer to the following questions:

4. When you go/went online to get information about the elections, do/did you participate in online discussions or chat groups about the elections?
5. When you go/went online to get information about the elections, do/did you register your own opinions by participating in an electronic poll?
6. When you go/went online to get information about the elections, do/did you get information about a candidate’s voting record?
7. When you go/went online to get information about the elections, do/did you get information about when and where to vote?
8. When you go/went online to get information about the elections, do/did you get or send e-mail supporting or opposing a candidate for office?
9. When you go/went online to get information about the elections, do/did you contribute money to a candidate running for public office through his or her Web site?
10. When you go/went online to get information about the elections, do/did you look for more information about candidates’ positions on the issues?
11. When you go or went online do or did you ever encounter or come across news and information about the 2000 elections when you may have been going online for a purpose other than to get the news?
4. Have you sent e-mails about the 2004 campaign to groups of family or friends who are part of an e-mail list or online discussion group?
5. Did you subscribe or sign up to receive e-mail from any of the presidential campaigns this year, or not? IF YES: Did you sign up to receive e-mail from the Bush campaign, from the Kerry campaign, or from some other candidate’s campaign? (1 = yes, Bush; 2 = yes, Kerry; 3 = yes, someone else—up to three answers allowed)
6. Have you ever signed up to receive e-mail newsletters or other online alerts containing the latest news about politics or the election?
7. Sent e-mails urging people to get out and vote without reference to a particular candidate?
8. Sent e-mails urging people to get out and vote for a specific candidate?
9. During this year’s election, did you happen to sign up online for any volunteer activities related to the campaign—like helping to organize a rally, register voters, or get people to the polls on election day—or did you not sign up online for any?
10. Did you get any information online about the race for President?
11. Did you get any information online about races for U.S. Senate?
12. Did you get any information online about races for U.S. House?
13. Did you get any information online about races for Governor?
14. Did you get any information online about local races in your area?
15. Did you get any information online about ballot measures or initiatives?
16. When you went online to get information about the elections, did you ever do any of the following? Participate in online discussions or chat groups about the elections.
17. When you went online to get information about the elections, did you ever do any of the following? Register your own opinions by participating in an online poll.
18. When you went online to get information about the elections, did you ever do any

The Interactive Index for 2004 consisted of the following questions (1 point for each yes answer):

1. Go online to get news/info about the election (yes more than once/day, yes daily, yes 3–5 days a week, yes 1–2 days a week)
2. Sent or received e-mails about the election
3. Have you participated in any other campaign-related activities using the Internet, such as reading discussion groups, signing petitions, or donating money online?

- of the following? Get information about a candidate's voting record.
19. When you went online to get information about the elections, did you ever do any of the following? Get information about when or where to vote.
  20. When you went online to get information about the elections, did you ever do any of the following? Contribute money online to a candidate running for public office.
  21. When you went online to get information about the elections, did you ever do any of the following? Look for more information about candidates' positions on the issues.
  22. When you went online to get information about the elections, did you ever do any of the following? Get or send e-mail with jokes about the campaigns and elections.
  23. When you went online to get information about the elections, did you ever do any of the following? Find out about endorsements or ratings of candidates by organizations or groups.
  24. When you went online to get information about the elections, did you ever do any of the following? Find out how the candidates were doing in the public opinion polls.
  25. When you went online to get information about the elections, did you ever do any of the following? Check the accuracy of claims made by or about the candidates.
  26. When you went online to get information about the elections, did you ever do any of the following? Watch video clips about the candidates or the election that are available online.
  27. When you go online, do you ever encounter or come across news and information about the 2004 elections when you may have been going online for a purpose other than to get the news?
2. Did you communicate with others about politics/the campaign/the 2008 elections using the Internet, whether by e-mail/text messaging/instant messaging/or using a social-networking site? (Yes, more than once/day, Yes, everyday, Yes, 3–5 days/wk, Yes, 1–2 days/wk)
  3. Receive e-mail from a candidate or political party? (Yes, more than once/day, Yes, everyday, Yes, 3–5 days/wk, Yes, 1–2 days/wk)
  4. Send e-mail to or from friends, family members or others about the campaign? (Yes, more than once/day, Yes, everyday, Yes, 3–5 days/wk, Yes, 1–2 days/wk)
  5. Receive e-mail to or from friends, family members or others about the campaign? (Yes, more than once/day, Yes, everyday, Yes, 3–5 days/wk, Yes, 1–2 days/wk)
  6. Receive text messages from a candidate or political party? (Yes, more than once/day, Yes, everyday, Yes, 3–5 days/wk, Yes, 1–2 days/wk)
  7. Send or receive text messages with friends, family members, or others about the campaign? (Yes, more than once/day, Yes, everyday, Yes, 3–5 days/wk, Yes, 1–2 days/wk)
  8. Use instant messaging (IM) to talk with friends, family members, or others about the campaign? (Yes, more than once/day, Yes, everyday, Yes, 3–5 days/wk, Yes, 1–2 days/wk)
  9. Use Twitter to post your thoughts or experiences related to the campaign? (Yes, more than once/day, Yes, everyday, Yes, 3–5 days/wk, Yes, 1–2 days/wk)
  10. Sign up online to receive updates about the campaign or the elections?
  11. Contribute money online to a candidate running for public office?
  12. Look for more information online about candidates' positions on the issues or voting records?
  13. Watch video online from a campaign or news organization?
  14. Watch video online that did not come from a campaign or a news organization?
  15. Sign up online for any volunteer activities related to the campaign—like helping

The Interactive Index for 2008 consisted of the following questions (1 point for each yes answer):

1. Look online for news or information about politics or the 2008 campaigns?

- to register voters or get people to the polls?
16. Share photos, videos, or audio files online that relate to the campaign or the elections?
  17. Forward someone else's political commentary or writing to others?
  18. Forward someone else's political audio or video recordings to others?
  19. Set up news alerts to get political or campaign information e-mailed to you when new information is cited in the news or on the web?
  20. Customize a Web page to display new political or campaign information that is especially interesting or important to you?
  21. Subscribe to receive campaign or political information through an RSS feed?
  22. Thinking about what you have done on social-networking site like Facebook and MySpace, have you gotten any campaign or candidate information on the sites?
  23. Thinking about what you have done on social-networking sites like Facebook and MySpace, have you started or joined a political group, or group supporting a cause on a social networking site?
  24. Thinking about what you have done on social-networking sites like Facebook and MySpace, have you revealed on a social networking site which Presidential candidate you voted for this year?
  25. Thinking about what you have done on social-networking sites like Facebook and MySpace, have you discovered on the sites which Presidential candidate your friends voted for this year?
  26. Thinking about what you have done on social-networking sites like Facebook and MySpace, have you signed up as a "friend" of any candidates on a social networking site?
  27. Now thinking back to before you voted in this year's presidential election, did you ever go online to find out if you were registered to vote in this election?
  28. Now thinking back to before you voted in this year's presidential election, did you ever go online to find a place where you could go to vote?
  29. Now thinking back to before you voted in this year's presidential election, did you ever go online for information about absentee or early voting?
  30. Now thinking back to before you voted in this year's presidential election, did you ever go online to find out what others in your area were saying about possibly long lines where you were going to vote?