

**JOURNALISTS' PERCEPTIONS**  
**OF ONLINE INFORMATION-GATHERING PROBLEMS**

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## **ABSTRACT**

This paper reports a study of leading problems in using the World Wide Web for newsgathering that were identified by daily newspaper journalists. Respondents to 1997 and 1998 national censuses listed their perceptions of flaws in the Web as a newsgathering source. A total of 226 newspapers in 1997 and 185 in 1998, with a daily circulation of 20,000 or greater each year, participated in the study. Data from similar national censuses conducted in 1994, 1995, and 1996 are also reported for some variables. The study found growing use of online resources, such as the Web and commercial services, during all five years. Among the leading problems named by journalists were those common to other forms of news reporting that had little to do with the Web itself. These concerns included verification, unreliable information, badly sourced information, and lack of Web site credibility. Technical problems were not perceived to be as severe. Outdated links and slow loading times were among the problems cited that related to the medium itself.

## **JOURNALISTS' PERCEPTIONS OF ONLINE INFORMATION-GATHERING PROBLEMS**

Since journalists first began to gather and report information from sources centuries ago, they have encountered a variety of obstacles. For example, inaccurate and incomplete information, unreliable sources, deceptive and misleading information providers, and other similar difficulties have caused both major and minor problems in news reporting (Mencher, 1997; Izard, Culbertson & Lambert, 1994; Rich, 1997). The value of sources to news reporters is also well documented. "The source is the reporter's life blood. Without access to information through the source, the reporter cannot function," wrote Columbia University newsgathering expert Melvin Mencher (1997, p. 309).

While new technologies, as they develop, help to overcome some of the obstacles, they do not always seem to be the solution. They can, sometimes, add to existing problems. However, journalists have used telephones, short-wave radio, fax machines, and other new information-gathering technologies to improve their work and to resolve some of the difficulties of gathering information that have emerged during the past century. Technology-based resources, for instance, help increase speed and, sometimes, the accuracy of information being reported. Technologies, of course, have their shortcomings. Sources on the telephone, for instance, may not be who they say they are supposed to be. Human sources have been known to be unreliable, to lie, and even to engage in elaborate hoaxes. New technologies, such as cellular telephones, often provide poor connections and radio communications is susceptible to interference. Furthermore,

third parties may monitor wireless devices. Faxes, widely used in newsrooms during the past two decades, can be garbled or reproduced so poorly as to be unreadable (Mencher, 1997; Izard, Culbertson & Lambert, 1994; Garrison, 1992).

The latest information technology, centered on the worldwide network of computer systems known as the Internet, has been an asset to most journalists who have embraced it. Growing numbers of journalists use the World Wide Web as a reporting tool with considerable enthusiasm (Kaye & Medoff, 1999; Callahan, 1997; Ross & Middleberg, 1997; Garrison, 1998; Reddick & King, 1997). Among the most appealing reasons for use of this new resource is its scope and depth of information as well as the speed at which the information may be retrieved. "Before personal computers and fax machines, journalists relied on other tools to do their jobs: telephones, telegraphs and typewriters were at the top of the list.... Add a modem to a computer with a news library researcher skilled in online database searching, and reporters discover information resources unrivaled in scope. With expanded access into electronic files of government data, and by analyzing that data, reporters really become power journalists," wrote University of North Carolina professor and librarian Barbara Semonche (1993, p. 267).

The value of online resources to journalists is well established in the literature of newsgathering and mass communication technology (Ross & Middleberg, 1997; Kaye & Medoff, 1999; Garrison, 1998; Kessler & McDonald, 1992; Reddick & King, 1997; Garrison, 1996). For example, resources found on the Internet often enhance coverage of breaking news stories such as an airline or weather disaster (Ward & Hansen, 1997). Journalists use online resources for background for interviews or other purposes, to find or identify sources, to check or verify facts, to read their competition, to become

informed about current events, and to identify story ideas (Garrison, 1998; Ward & Hansen, 1997; Ross & Middleberg, 1997).

Just as these advantages have been documented, there is growing alarm about the problems associated with use of online resources. When online resources first appeared in newsrooms in the late 1970s and early 1980s, much concern focused on the cost of the services (Garrison, 1995). Contemporary journalists often seek innovative approaches to their newsgathering and news processing and their jobs often require polished analytical skills and overall higher levels of computer literacy (Stepp, 1996). Other concerns focused on learning to use complicated and cumbersome computer systems that were not very user-friendly. While online fees have been reduced, the amount and depth of information have increased. Furthermore, use of these online resources has become much easier in the past decade. However, other issues remain. One such concern is judging and, ultimately, trusting the quality of the content of online databases, Web sites, and other resources (Schlossberg, 1999). Government databases, for example, are widely known for their errors and flaws (Landau, 1994; Freed, 1994; Garrison, 1996).

Content of the massive amounts of online resources requires critical judgment by journalists. Without critical analysis of World Wide Web and other online content just as journalists evaluate human sources for their credibility and trustworthiness, there will be problems with the online tools (Garrison, 1998, Winter). “It is not all business on the WWW,” wrote Cheryl Harris (1996, p. 113), an Internet use researcher. “Plenty of sites share recreational pursuits, personal interests, or just wacky achievements like a hottub that is wired to the WWW and can be monitored by anyone tuning into its WWW site.”

While the Internet and World Wide Web are valuable newsgathering tools, finding information is a barrier for all users, especially journalists on deadline (Callahan, 1997). Even if the act of locating information were enough trouble, technophobia has been determined to be another concern (Singer, Tharp & Haruta, 1998; Garrison, 1998; Ward & Hansen, 1997). Some experts have endorsed extensive training on use of online resources as an answer (Kovacs, 1995; Garrison, 1996).

Researchers have identified anonymity and online accountability as major problems with online newsgathering (Singer, 1996). Accuracy and verification issues arise when discussing online news sources such as Web publications that are often themselves sources for journalists (Reddick & King, 1997; McGuire, et al, 1997; Lasica, 1997; Evans, 1998). Some experts warn of a new form of the accuracy problem that is caused by hackers, individuals who intentionally break into and alter a site's content (Phipps, 1998; McGuire, et al, 1997). Still other experts believe verification to be the most serious problem with online information (Carleton, 1994).

The Internet, one author recently noted with some concern, has changed the way Internet users assess trustworthiness. Schlossberg (1999) argued that traditional standards, such as familiar voices or established reputations, are being discarded in favor of technological features, such as availability of useful links to other sites. Authoritativeness of sources on the Web is identified as a factor in using online sources (Evans, 1998; McGuire, et al, 1997). The timeliness, or freshness, of the information offered is a concern of many journalists (McGuire, et al, 1997).

Ethics problems are also the focus of those scholars studying the Web as an information source. Lynch (1998) identified responsibility for linked content and chat

room content, content credibility and accuracy, privacy invasion, and separation of advertising and editorial content as key concerns.

Carleton (1994) noted that the fluid nature of the Internet is troublesome because of information found one day may not appear the next. Andrews (1996) said the new technology is to blame for still another problem—surveillance in cyberspace. Reporters using newsgroups and other online resources to find sources, he explained, often are vulnerable to spying by competitors or corporate public relations people.

Pfaffenberger (1996) noted that searching for information on the Internet usually results in finding too much information or finding too little information. There is also need to consider the context of the information presented on the Web (McGuire, et al, 1997). Numerous individuals have written about information overload problems and the need to manage information found using online resources (Pfaffenberger, 1996; McGuire, et al, 1997; Garrison, 1998). With the growth of the Web and other online services in recent years, the problem has only intensified (Glossbrenner, 1998). The resulting proliferation of search tools has only created other problems—such as deciding which search tools to use (Glossbrenner, 1998). This is compounded by the open and unlimited nature of the Web. “The Web community is antiestablishment and skeptical about the status quo. It assumed that information should be free-flowing, unrestrained and open to interpretation—assumptions that thwart the old media’s traditional role as gatekeeper and protector of the public’s right to know,” wrote journalist Dianne Lynch (1998, p. 42).

Considering these numerous concerns about online reporting sources that are discussed in the literature, this study sought to answer the two research questions:

- a. *What are journalists' use levels and usage characteristics of the World Wide Web and other online resources?*
- b. *What are the main problems perceived by journalists that are related to their use of information found on the World Wide Web?*

## **METHODS**

During the past five years, five national censuses of daily newspapers with circulations of 20,000 or greater were conducted. As newspaper circulations changed and as some newspapers ceased to exist or were merged into other newspapers during the period, the membership of the population changed from year to year. Population sizes were 514 newspapers in 1994, 514 in 1995, 510 in 1996, 510 in 1997, and 504 in 1998. Circulation figures used were those listed in the current *Editor & Publisher International Yearbook* during 1994-98. In each census except 1994, two follow-up mailings were used to enhance response rates. In 1994, only one follow-up mailing was conducted. Response rates were  $n = 185$ , or 37.1% (1998);  $n = 226$ , 44.3% (1997);  $n = 233$ , 45.7% (1996);  $n = 287$ , 56.5% (1995); and  $n = 208$ , 40.5% (1994). Demographics— circulation, regional proportions, and individual respondent newsroom roles— of respondents and their newspapers have been consistent over the five years. Response patterns represent all regions of the country and have produced a mean circulation each year of about 115,000 copies. In each year, respondents have been editors, computer-assisted reporting supervisors, news researchers, investigative reporters, or special project reporters. Because the study involved analysis of a population, not a sample, statistical tests are not reported.

The results reported in this study were part of a larger study that used a six or eight-page questionnaire, depending on the year. For the most part, closed-ended questions were used on Web problems items and open-ended items were required for Web use items. The series of censuses are part of an on-going project that studies computer-assisted reporting, including use of the World Wide Web as a newsgathering resource. One portion of the data collection instrument focused on use of the World Wide Web and the leading national and regional commercial online information services. Questions sought to establish use of online tools, frequency of use of these resources, types of online resources used, types of news stories reported with online resources, most frequently used online databases or services, most commonly used Web sites, search techniques and tools, and several measures of problems encountered during online research sessions. Specifically, respondents were asked to identify the main problems encountered in using information found on the Web. They were also asked to identify the elements of high- and low-quality Web sites.

## **FINDINGS**

The first research question focused on Web use. Data presented in Table 1 indicate steady growth of both the basic use and frequency of use of online resources in newsgathering. General use has increased to 95.1% of responding newspapers, increasing each year from a base of 57.2% in 1994. Daily use of online services has increased to 63.2% of responding newspapers in 1998, up from 27.4% in 1994.

In 1998, a total of 92.4% of responding newspapers used the World Wide Web or other Internet resources in newsgathering. The use of the Internet as the primary online

research tool in newsrooms has only grown in recent years, as data in Table 2 demonstrate. Only 25.0% of newspapers used the Internet or World Wide Web in 1994, but this percentage has steadily increased since that year. Among other Internet and commercial online services reported, respondents favored using local government online, most likely on the Web in 1998 (54.1%), Nexis-Lexis (36.2%), America Online (35.1%), PACER (28.1%), and Autotrack Plus (27.0%). Data from earlier years show that these resources have consistently been among the leading choices.

Data in Table 3 show that journalists use state and federal government Web sites most often. The general category of state government Web sites was named by 24.4% of respondents in 1998. It was also the leading category in 1997. However, use of the federal U.S. Bureau of the Census site has also increased to 24.4% in 1998. Search tools Yahoo! and AltaVista were also popular. After these top four resources on the Web, selections drop to much smaller proportions.

The second research question focused analysis on Web problems for newsgathering. In terms of positive attributes of Web sites, journalists named the reputation of the source as the leading characteristic. As noted in Table 4, 80.5% of respondents sought information from sources that were perceived to be reputable. Finding valid, accurate information was also viewed to be important (77.8%), as was the ability to search the site for specific information (70.3%). A total of 60.5% sought data that can be transferred from a Web site into an analytic tool such as a spreadsheet program. Ease in access to information was also important to journalists (57.8%). Speed, indexing, and the number of graphics on the site was viewed as less important.

Data in Table 5 highlight those factors journalists identified as troublesome with Web sites. Inaccurate information (81.6%) was the most frequently cited characteristic of a poor-quality Web site. Useless or bad content was also widely cited (70.3%). Bad or outdated links (67.6%) and lack of attribution (61.6%) were also common criticisms.

When asked what they believed the most common problems of Web sites for journalists, the respondents listed lack of verification most often (54.1%). Similarly, Table 6 data show unreliable information (44.9%), badly sourced information (44.3%), and lack of site credibility (43.8%) were also important concerns of the respondents.

Journalists described use of their online resources as most helpful in backgrounding stories in 1998 (15.3%), data in Table 7 show. This use of online information was also the leading success in 1997. Other successes in using online resources in newsgathering in 1998 included finding difficult-to-find information (9.2%), finding sources (8.2%), extending government coverage (8.2%), and integrating online research fully into the newsroom (8.2%).

In both 1998 and 1997, journalists reported the inability to take advantage of online research and information gathering as their leading failure involving online services. As shown in Table 7, a total of 30.4% cited this problem in their newsroom, down from 35.1% a year earlier. Lack of access has increased as an identified problem (15.7%), but those listing lack of training have declined slightly (5.9%). Trouble with government data and lack of supervisor support are also listed by 4.9% of respondents.

## CONCLUSIONS

Steady growth in use of online services in news reporting underlines the importance of identifying and analyzing problems associated with online information services and the Internet. The dominance of the Internet and its World Wide Web as the leading online tool places focus on the Web and suggests that additional research be conducted. In fact, serious thought should be given to development of a Web news research agenda.

The simple fact that more than nine in ten daily newspapers with daily circulations of 20,000 or more participating in this study use the Web points to the need to identify and resolve, as much as possible, the problems that come with using the Web as a newsgathering tool. At the very least, there is urgency in making certain that journalists are aware of these potential problems and ways to cope with them.

Many of the obstacles that journalists have identified in these censuses are common problems of human sources, documents, or personal observation as well. Some of the issues are tied to credibility of the source. At the moment, perhaps, this is one of the leading unknowns involving the Web. Most of the sites used that are not government, or “official” public sites, are still being examined and tested for credibility for use by journalists. Journalists, simply put, are not yet sure which sources are to be trusted for their accuracy and dependability in the world of the Web. They have existing standards for assessing credibility and trustworthiness of sources and these are used with the Web. But there may be need for new standards as well. Development of credibility of a source of information requires time and experience and journalists have not spent much time

with the sources used on the Web yet, nor have they gained much experience with those sources in the short time the Web has become an information resource.

While many of the problems identified in this study are of broader concerns than just with the Web, some of them are unique to the online world. Both sets of obstacles need to be addressed as journalists develop a news research culture for the online world. Experienced users, such as news librarians, are acutely aware of the problems and have worked to overcome them by educating others in the newsroom. However, beginning users may not be as aware of the shortcomings. Likely members of this group include both student journalists and veteran professionals who are only just beginning to gain access to the Internet and its resources.

At this stage in the evolution of the Web and in the development of Web researchers in newsrooms, journalists remain concerned about traditional issues in newsgathering. Technical issues, while not ignored, were not as significant. For example, journalists listed source reputation and accuracy of information as leading characteristics of high-quality Web sites. They listed inaccurate information and useless or bad content as leading characteristics of poor-quality sites. For each question, the third-leading characteristic involved technical issues related to the computer network— searchability and outdated links to other sites.

Online successes and failures resulted in interesting contradictions in some ways and may be worth further study. Journalists in this study see success with the Web in terms of news content (for example, backgrounding stories, finding difficult-to-find facts, finding sources, extending government coverage, and fully integrating use of online resources into the newsroom). However, the perceived failures are of a different nature.

These are much more institutional in that they focus on the newsroom itself (for example, not taking advantage of it, no access to it, lack of training, and no management support).

Among the most frequently cited problems, journalists pointed to verification, reliability, sourcing, and credibility as the leading factors, not technology. Only difficulty in finding Web addresses was a problem cited that is inherent in the Internet's use. Even when asked about successes and failures, most responses related to finding and using information (e.g., backgrounding) rather than the new technology of the Internet (e.g., training or inadequate hardware-software). Among all responses to these items, the same general pattern held that shows most journalists remain concerned about the quality of the information rather than the quality of the medium itself.

## TABLES

**TABLE 1  
GENERAL USE OF ONLINE RESOURCES**

	1994	1995	1996	1997	1998
<b>USE OF ONLINE</b>					
Yes	57.2%	63.8%	80.7%	89.8%	95.1%
No	39.9	33.4	19.3	7.5	3.2
Missing	2.9	2.8	0.0	2.7	1.6
<b>FREQUENCY OF USE</b>					
Daily, more often	27.4%	28.9%	36.9%	51.8%	63.2%
Weekly, more often	12.1	22.0	25.8	28.8	25.4
Monthly, more often	3.6	9.8	12.9	4.9	2.7
Less than monthly	1.4	5.8	4.3	7.1	3.8
Missing / never used	38.9	33.8	20.2	5.3	4.9
Other	17.3	----	----	----	----
Totals	100.7%	100.3%	100.1%	100.0%	100.0%
	n = 208	n = 287	n = 233	n = 226	n = 185

**TABLE 2  
USE OF ONLINE NEWSGATHERING RESOURCES**

Service	1994	1995	1996	1997	1998
Internet / WWW	25.0%	44.6%	66.5%	91.6%	92.4%
Local govt. online	----	27.2	28.3	46.0	54.1
Lexis / Nexis	28.8	28.2	28.8	25.7	36.2
America Online	17.3	38.0	47.2	42.5	35.1
PACER	----	19.5	23.2	27.4	28.1
Autotrack Plus	----	----	----	20.4	27.0
FedWorld	----	19.9	20.6	19.9	21.1
Usenet Newsgroups	----	----	----	----	21.1
Govt. or other BBSs	38.9	18.1	8.2	23.9	21.1
Dow Jones	16.3	12.2	13.3	15.5	20.5
DataTimes	14.9	26.8	24.5	19.9	19.5
Dialog/Know. Index	26.4	22.3	18.5	15.0	16.2
CompuServe	38.0	39.4	41.6	26.5	13.0
Westlaw	0.0	1.7	3.4	3.5	7.6
Information America	----	3.8	4.7	3.1	3.8
	n = 208	n = 287	n = 233	n = 226	n = 185

**TABLE 3**  
**FAVORITE WORLD WIDE WEB SITES**

<b>Web site</b>	<b>1997</b>	<b>1998</b>
State government sites	23.9%	24.4%
U.S. Census	17.2	24.4
Yahoo!	11.9	11.4
AltaVista	13.4	8.1
Various newspaper sites	2.2	4.9
Switchboard	3.0	4.1
SEC Edgar	6.0	3.3
Journalism organization sites	0.0	2.4
ProfNet	0.0	1.6
Weather sites	0.0	1.6
EPA	0.0	1.6
FAA-NTSB	0.0	1.6
Federal Election Commission	4.5	0.0
FedWorld	2.2	0.0
Lycos	2.2	0.0

(Note: First-listed responses only, n = 123 in 1998 and n = 134 in 1997)

**TABLE 4**  
**CHARACTERISTICS OF A HIGH-QUALITY WEB SITE**

<b>Characteristic</b>	<b>1998</b>
Reputable source	80.5%
Valid, accurate information	77.8
Searchable site	70.3
Downloadable, delimited data	60.5
Easily accessible information	57.8
Speed	41.1
Indexed	32.4
Minimum graphics	17.8
Other characteristic	3.8

n= 185

**TABLE 5**  
**CHARACTERISTICS OF A LOW-QUALITY WEB SITE**

<b>Characteristic</b>	<b>1998</b>
Inaccurate information	81.6%
Useless, bad content	70.3
Bad, outdated links	67.6
No attribution	61.6
Slow to load	53.0
Cannot search site	51.9
Poor site organization	47.0
Pointless graphics	44.3
Public relations content	27.6
URL, site hard to find	26.5
Other characteristic	3.8

n= 185

**TABLE 6  
COMMON PROBLEMS USING WEB SITES**

<b>Problem</b>	<b>1998</b>
No verification	54.1%
Unreliable information	44.9
Badly sourced information	44.3
Lack of site credibility	43.8
URL, site hard to find	24.3
Truthfulness	18.4
Other problem	11.9

n= 185

**TABLE 7  
ONLINE USE SUCCESSES AND FAILURES**

<b>Category</b>	<b>1997</b>	<b>1998</b>
<b><u>SUCCESSES</u></b>		
Background	12.5%	15.3%
Finding difficult-to-find facts	11.6	9.2
Finding sources	9.8	8.2
Extending government coverage	8.0	8.2
Fully integrated into the newsroom	6.3	8.2
Getting news fast	8.9	6.1
More government data access	2.7	6.1
Big database projects	1.8	5.1
Now part of reporting	5.4	5.1
Reporters getting excited	3.6	5.1
Added depth, context	7.1	4.1
Surveys and statistics	0.9	4.1
<b><u>FAILURES</u></b>		
Not taking advantage of online	35.1%	30.4%
Lack of access	5.3	15.7
Not enough training for use	8.8	5.9
Trouble with government data	1.8	4.9
Editors don't support it	1.8	4.9
Slow to learn to use online	8.8	3.9
Need expertise	1.8	3.9
Cannot find information sought	0.9	3.9
No verification	0.0	2.9
Not enough resources to use	8.8	2.0
Some staff members not motivated	5.3	1.0

n = 98 for successes and n = 102 for failures in 1998 and n = 112 for successes and n = 114 for failures in 1997

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