References and Bibliography: Citing the Internet

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Abstract

Over the past six years scholars have found the Internet to be source of "quick" information. While the quality of information on the Internet may be questionable, nonetheless, sources of on-line studies are beginning to merge with library-based research. This article discusses the history of the Internet, concerns of using the Internet as a source, the importance of citing sources and how to cite electronic sources.

Introduction

While the Internet is not new, its importance and usage is growing rapidly. Over the past six years, the growth of the number of Internet connections has been phenomenal. Internet users, among who are found students and academicians, have found it to be a source of quick and easy information. Because the Internet is easy to use, information has begun to merge with 'solid' library-based research in which the investigator pours through volumes of refereed journals and studies in order to follow a stream of research with citations in a literature review. While the quality of information on the Internet may be questionable, nonetheless, it is a source of information.

"When information is filtered - reviewed, authenticated, and evaluated - end users come to trust the source and accept an expert's assessment that it is valid and authoritative" (Brandt 1996, p. 44). This credibility has been established over years for peer-reviewed print journals. For the Internet, there is only assumed credibility on the part of most users. "There is a tendency to assume that information

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turned up via a search engine has somehow been evaluated as part of the selection process" (Brandt 1996, p. 45). This is not the case. Even though users of electronic sources could try to validate the information given, it should be the authors' responsibility to prove credibility. Citing the work allows a reader personally investigate a source and has been a historical source of credibility.

History of the Internet

Since its inception, the Internet has grown rapidly. The technological improvements shown in Table One indicate significant growth of its use within the last six years due to an increased number of personal computer users and the availability of on-line services.

Importance of Citing Sources

The purpose of citing any source of information is to show the validity of the information and to establish authenticity. Thus the researcher is able to make inferences from a particular source. The purpose of having journals refereed is to serve as a form of "checks and balances" or control by experts within a particu-

Table 1: Internet Growth

1956	The Advanced Research Project Administration (ARPA) was founded to find better ways of connecting government and military computers.
1969	Researchers at four United States university campuses create the first hosts of the ARPANet, connecting UCLA, Stanford, UC Santa Barbara, and the University of Utah.
1972	E-mail is invented and quickly becomes one of the most popular applications of the ARPANet.
1973	The first international connections to the ARPANet are established.
1974	The commercial version of the ARPANet goes on-line.
1981	ARPANet has over 200 hosts in 22 countries. A new host is added approximately once every 20 days.
1987	The number of Internet hosts reaches 10,000.
1989	The number of hosts exceeds 100,000.
1990	The number of hosts exceeds 300,000. The University of Minnesota releases 'gopher,' the first easy means of navigating the Internet. The Englishman Tim Berners-Lee invents Hyper Text Markup Language (HTML)along with the concept of the World Wide Web at the Eurpoean Laboratory for Particle Physics.
1992	The number of Internet hosts breaks 1,000,000.
1993	'Mosaic,' the first graphics based Web browser, becomes available. The number of Internet host in January exceeds 1.3 million.
1994	Internet traffic exceeds 10 trillion bytes per month. The number of Internet hosts in January exceeds 2.2 million hosts, in July 3.2 million. Netscape is developed.
1995	The Internet programming language JAVA is released. In January there are over 4.9 million Internet hosts. The number of hosts increases to 6.6 million by July.
1996	The number of web servers increases by 2,4000% to 76,000. The number of computer hosts exceeds 12 million and users in almost 150 countries around the world are connected to the Internet. There are 60 million users. The Web doubles every 53 days.
1997	The number of Internet hosts exceeds 15 million.
1998	The number of Internet Hosts exceeds 29 million.

Sources used: Barron, 1997; Bates, 1997; Bridges, 1997; Butler, 1996; Ives, 1996; Leiner et al, 1997; NN., 1996; Reidelbach, 1996.

balances" or control by experts within a particular field. Selected experts critique a study/article to authenticate the facts, confirm the concepts, and identify the piece of work as a contribution to the body of literature. In addition to verifying the work, citations allow a reader to go to the original source for additional information. Many documents and articles on the Internet have not undergone this process of peer-review. Nonetheless, these on-line articles might offer valuable information others want to cite.

Proper Citation of the Internet and other On-line Sources

While some style manuals are trying to accommodate researchers who are obtaining information from the Internet, standards are still emerging. According to Dr. Janice R. Walker at the University of South Florida, there are a number of works forthcoming on electronic citation. Arnzen provides a list of more than eight different Internet style guides, including Walker's own. The style sheets include APA, MLA and Chicago versions of electronic citing (Arnzen 1996, p. 74). The first style guide ever published was by Li and Crane in 1993. The second edition appeared in 1996. Arnzen also gives examples of citing email, web sites, FTP, gopher, usenet, and mailing lists (Arnzen 1996, p. 75). The format for citing references remains similar no matter what the electronic document.

When citing electronic media of on-line information, researchers' goals should be to give credit to the authors and to allow others to easily locate the same or up-dated information. "Standards for print materials, such as formats for publication dates, page numbers, and even punctuation, become confusing when applied to sources on the Internet (Guernsey 1996, p. 18). Giving correct credit for electronic sources can be achieved by including the author's name, document title, web page title, web address, date of document, and the date accessed by the writer. The form of the citation should appear as follows:

Author's last name, First name. "Document title." Web page title. [Web address] (date of document). Date accessed by writer.

Author's name

The author's first and last name establish credibility as the source of the information. "A strength (but also, some would have it, a weakness) of the Internet is that almost anyone can put anything online. In doing so, however, they bypass many of the benefits of traditional publication--issuance by an authoritative source, editorial or peer review, evaluation by experts, etc." (Brandt 1996, p. 45). Therefore, because of the ease of creating a home page, it is particularly important to include any professional designations in the citation.

Document title

While it is important to cite the title of the document if one is available, the absence of a title does not mean the work cannot be cited. Yet, this should serve as a warning to the writer to authenticate the source.

Web page title

The Web page title is found in a bar across the top of the computer screen. Sometimes the Web page title can be found in the header or footer of hard copy as well.

Web address

The Web address is the most critical element of the citation. Improper listing of the address can ruin any chance for the reader to visit the original source for additional information or to confirm the writer's information. The web address should be complete and exactly as appearing on the Web page. The citation should include such information as: http://www, telnet://, gopher://, or ftp://. There are no spaces in a Web address.

Date of document

Standard protocol when creating a web page includes identifying the date of the last update, which is usually found at the bottom of the page and included by the author. One advantage of the Internet is the ability to quickly provide new information on a Web page. This can be a disadvantage for the researcher when citing a web page as a reference. The information may have been modified or replaced by a more recent version. Citing the date of the document helps identify whether the reader is referencing the same information. It also allows the reader to contact the author for archive information.

Concerns of Using the Internet as a Source

As of the end of January 1998, the number of Internet hosts exceeded 29 million. Anyone can create and post a home page, and there is no quick way to prove the authenticity of the information provided. As a rule of thumb, professional sources will footnote to verify their information. Work is not defensible unless a source is cited. The material found on the Web might be likened to "talk radio" in which commentators and radio guests or callers express opinions but not necessarily the facts. The Worldwide Web is akin to "talk radio" in many instances, as Pierre Salinger discovered when he "broke" the news of a missile downing TWA Flight 800. "Salinger said the information was given to him by a French intelligence agent, but later admitted that the document was one that had been available on the Internet for weeks--and

that has been debunked online by a leading aviation investigator" (Jurek 1997, p. 49). Many people believe that something is true just because it is written down.

Conclusion

The Internet is here to stay. If its current growth is any indicator, it will continue to provide an immense source of information and knowledge to researchers. In order to determine what is credible information, "people need to become more critical of the information to which they are exposed--particularly people accessing information from the Internet" (Jurek 1997, p. 49). The challenge for all who use the Internet as a source is to strengthen their work by giving complete citations.

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