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Digital Dilemmas: The Transformation of Scholarly Discourse in the Humanities

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The last two decades of the 20th century brought rapid and cataclysmic change to the industrialized world with the introduction and then invasion of computer technology into every aspect of life. Dissemination of scholarly research in many disciplines had migrated from journals and books produced by scholarly societies and university presses to the for-profit sector. As the corporate publishers began reaping profits from the scholarly enterprise, electronic publication and "taking back" the publication of research were solutions proposed to make the dissemination of research affordable for academe. The research library and scholarly publishing communities are collaborating in the establishment of Institutional Repositories and advocating open access to scholarly resources. These initiatives are at the heart of the "transformation of scholarly communication." The "Digital Dilemma" is posed by need to take advantage of technological dissemination of information juxtaposed with older traditions of the academy. To survive in the "information society" the humanities need to address a broader public. The information commons of the Internet provides a broader international audience for scholarship. This paper explores the issues posed by the "Digital Dilemma" and the changes taking place in humanities scholarship that address those issues.

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Digital Dilemmas: the Transformation of Scholarly Discourse in the Humanities

Main Description

The last two decades of the 20th century brought rapid and cataclysmic change to the industrialized world with the introduction and then invasion of computer technology into every aspect of life. Dissemination of scholarly research in many disciplines had migrated from journals and books produced by scholarly societies and university presses to the for-profit sector. As the corporate publishers began reaping profits from the scholarly enterprise, electronic publication and "taking back" the publication of research were solutions proposed to make the dissemination of research affordable for academe. The research library and scholarly publishing communities are collaborating in the establishment of Institutional Repositories and advocating open access to scholarly resources. These initiatives are at the heart of the "transformation of scholarly communication." The "Digital Dilemma" is posed by need to take advantage of technological dissemination of information juxtaposed with older traditions of the academy. To survive in the "information society" the humanities need to address a broader public. The information commons of the Internet provides a broader international audience for scholarship. This paper explores the issues posed by the "Digital Dilemma" and the changes taking place in humanities scholarship that address those issues.

Short Description

The "Digital Dilemma" is posed by need to take advantage of technological dissemination of information juxtaposed with older scholarly traditions of the academy. To survive in the "information society" the humanities need to address a broader public and the information commons of the Internet provides a broader international audience for scholarship. This paper explores the issues posed by the "Digital Dilemma" and the changes taking place in humanities scholarship which address those issues.

Information Seeking in the Humanities/Arts

This paper begins with a review of research in the information seeking behavior of humanists to provide a background for discussion of the "digital dilemma" and the effects of electronic publication upon the future of scholarly communication in the humanities.

Research into the information-seeking behavior of humanists began by comparison and contrast to the natural sciences, and later, the social sciences. In 1972, Maurice B. Line referred to the information needs of the humanities as one of the great unexplored areas of information science (Line 1972, 146). Research over the past thirty years has established characteristics of the information seeking behavior of humanities scholars such that the study of the information-seeking behavior of humanists is a legitimate research subfield that has uncovered consistent patterns of behavior. Since the 1980s, studies have investigated the use and acceptance of technology by humanities scholars.

Rather than define the humanities by listing the well known disciplines and sub-disciplines, a broader definition is used here that describes the process of scholarly research in the humanities. The humanities are--

> ...those fields of scholarship that strive to reconstruct, describe, and interpret the activities and accomplishments of men and women by establishing and studying documents and artifacts created by those men and women. Crucial to this definition and to the distinctiveness of the humanities is the primary evidence or sources humanists use: documents and artifacts created by persons whose activities and accomplishments the humanist seeks to reconstruct, describe, and interpret. (Wiberley and Jones,1994:503)

The classic profile of the humanities scholar was described by Sue Stone in a review article "Humanities Scholars: Information Needs and Uses"(Stone 1982). The characteristics identified by Stone were reliance on books over all other formats, preference for working alone and the practice of browsing the library's shelves (Stone, 294, echoed in Watson-Boone, 204 and Broadbent, 32). Stone's 1982 review added the following elements to the pattern of information-seeking behavior: preferred searching tools are bibliographies, indexes and guides, abstracts and databases; the scholar's personal library is an important resource; and the importance of interlibrary loan service in meeting the scholar's mountainous need for materials (Stone 292-303; also Watson-Boone, 204). These observations have been confirmed and reconfirmed by further research (Wiberley, Jones, 1989, 1994, 2000; Lougee, Sandler, Parker, 1990; Tibbo, 1991; Watson-Boone, 1994; Bates, 1996; Cory, 1999; Massey-Burzio, 1999; Green, 2000; Brockman, et al, 2001).

Stephen Wiberley and William Jones followed a group of scholars through the late 1980s and 1990s, during which time the humanities scholarship of Stone's time was being transformed by the digital revolution. The conclusions drawn in their first report differ only slightly from Stone's, yet by 2000 they reported a widespread acceptance of electronic databases and use of communication technology (1989; 1994; 2000).

Toward the end of the 20th century, a number of studies in the library field looked at the use of technology by humanists. Virginia Massey-Burzio conducted focus group interviews with humanities faculty at Johns Hopkins University (Massey-Burzio 1999). The information desired was "how humanities faculty view library technology and its value to their research and teaching; their views and use of electronic texts, electronic journals and the Internet; and their interest in developing technological skills, and opinions about the ideal library of the future" (620-621). Massey-Burzio found that only a small number of humanities faculty used the internet; all complained about the time it took to find something worthwhile; the majority did not like the web-based online catalog as opposed to the older menu driven integrated system with which they were familiar; few used the expertise of librarians so they lacked knowledge about what was available to them and essential electronic sources of information in their fields; they were not enthusiastic about discussion lists. Faculty in image-intensive fields have been disappointed by digitized images. Some felt that librarians were always pushing them to use technology. Some agreed that there is a "book culture that's different from a technology culture," and that "social scientists are object oriented in their research while humanists are browsers." (622-633) As Wiberley and Jones had found, the humanities scholars were willing to use and learn technology if it did not consume too much of their time and they could clearly see benefits. But they all felt that technology has revolutionized the way they do research in a positive and powerful way. Critical editions with hypertext links to major critical articles are being made available and are turning out to be very useful to humanities scholars. But they were concerned about having to live without print journals. They were concerned about peer reviewing in publishing and electronic publications being cited less than those in print. Overall, Massey-Burzio found that the humanists used available technology and could see its benefits, but they read long texts, still consider browsing an essential research process, and prefer books and print journals. (638)

The Digital Library Federation and the Council on Library and Information Resources in the United States sponsored the *Scholarly Work in the Humanities Project*, a qualitative study conducted at the University of Illinois-Urbana-Champaign, begun in 1999. A report was published in December 2001 entitled "Scholarly Work in the Humanities and the Evolving Information Environment"(Brockman, et al 2001). The aim of the project was to "examine in detail how humanists work, how they are integrating technology into their work, and how future technologies might offer new opportunities in line with the goals of humanities research." (Brockman, et al 2001, 1) The final sample for the study was of thirty-three scholars in the departments of Classics, English, Comparative literature, Spanish, Italian, and Portuguese, French, German, and Music. The researchers did not want to characterize humanities scholarship as a whole or to profile an ideal scholar. They admit that the sample may have contained scholars who were more engaged with libraries and electronic resources than the typical humanities scholar because the participants had volunteered for the project. The findings are presented according to four types of activities–reading, networking,

researching, and writing. Each of these activities has subdivisions that are intensively pursued in the data collection. The study covered new ground in that it concentrates upon the aspects of humanities research which digital libraries and electronic information resources can most affect and upon gaining a thorough understanding of those aspects of humanities research.

In November of 2002, Friedlander published an article documenting the research results of a collaboration between Outsell, Inc. and the Digital Library Federation entitled, "Dimensions and Use of the Scholarly Information Environment" (Friedlander, 2002). This massive undertaking entailed Outsell, Inc. interviewing by telephone 3,234 educators and students from public and private research universities and liberal arts colleges in the United States. The respondents were distributed across seven disciplines, from math to science to the arts. Thus, it was not specifically a study of humanists information seeking. The objective of the DLF survey was "...to collect data on the relevance of existing and possible future services as well as on student and faculty perceptions of the library's value in the context of the scholarly information environment" (Intro.). One of the summarized findings from the DLF/Outsell study is that "Respondents differ in their level of comfort with electronic information depending on discipline and status. Respondents in the arts and humanities do not feel as comfortable with electronic information as respondents in social sciences, engineering, and business."(Intro.) More findings from the DLF/Outsell study are reviewed later in this paper by categories of information seeking behavior.

A broader review of the literature of "Use and Users of Electronic Library Resources" was conducted under the auspices of the Council on Library and Information Resources (Tenopir, 2003). In this review, eight major research studies were classified as Tier 1 studies and were analyzed in detail. The DLF/Outsell study mentioned above was one of the Tier 1 studies. Another 100 smaller-scale studies were classified as Tier 2 studies and analyzed in groupings. Findings from this comprehensive review of research on use of electronic library resources that are germane to this paper are:

- Print is still used for some reading and is part of research in almost every discipline,...especially in the humanities.
- Print remains the most popular medium for books; e-book use is still in the very early stages.
- Most e-journal users still print out articles that are judged useful-- so a printing format like PDF is popular.
- Subject experts use hyperlinks to view related articles; students' use of hyperlinks is less clear.
- Browsing a small number of core journals is important (in print or electronic forms), especially for subject experts and for current awareness searching.
- Users will read articles from a wide variety of journal titles and sources if available to them, although most of the readings come from relatively few journals.

- Personal subscriptions to journals continue to decrease, so users rely more on electronic subscriptions subsidized by the library and on the Internet.(iv-v)

From these studies of information seeking behavior, a number of major issues directly germane to the discussion of the transformation of scholarly communication in the humanities are examined next in more detail.

Importance of Libraries and Archives

In 1976, Mary Ellen Soper traced citations by scientists and humanists back to their source locations. The analysis revealed that the scientists in her sample were more reliant on their personal libraries (approximately three-quarters of their citations came from their personal collections), while humanists were more reliant on their institutional libraries (approximately one-third of their citations came from their personal collections) (412). In the Digital Library Federation survey with a five point Likert scale, 37.5% (the most frequent answer) of the arts and humanities respondents ranked their physical institutional library as the most important resource. Second choice (29.8%) was the scholar's personal library (Friedlander, tables 546-547). Later in the DLF survey comes a related question, "How much do you agree with *Having a personal library is more important now than it was two years ago*?" Out of 197 arts and humanities respondents, 39.2% strongly disagreed with this statement (Friedlander, table 644). Implying some degree of correlation between the DLF and the Soper studies, inference could be made that humanists' use of personal collections has, if anything, dwindled over the last three decades.

Reasons for the decrease in personal libraries may be the increased cost of books and also the increased availability of electronic journal resources through virtual libraries.

While the results of the DLF survey indicate the continued prominence of the institutional library and print materials in humanist research preferences, response to the question "How much do you agree with *I use the library significantly less than I did two years ago*?" indicates that increasing use of information technology has and is impacting library use. Of 197 arts and humanities respondents, 38.1% indicated a response of "Strongly agree" to the question. (Freidlander, table 643) Interestingly, the business and engineering scholars in the DLF survey were the only disciplines to register a majority response on the "disagree" side of the scale. The question does not differentiate between physical or cyberspace library locations, information that would help distinguish more clearly what these scholars are saying. Nonetheless, this suggests that, while browsing and Internet searching share the top ranking, the trend is indeed leading away from physical book searching.

Print or Electronic

There continues to be a strong preference for print even if the text is electronic. The DLF survey response to the question, "How much do you agree with *I am comfortable locating and using print information*?" was a majority 65.3% "Strongly agree" (Friedlander, table 634). On the same topic, a majority 33% selected "Moderately disagree" as a response to "How much do you agree with *I find reading information on screen satisfactory and rarely print out information*?" To the question "How much do you agree with *Printed books and journals will continue to be important sources for me the next five years*?" a majority (79.5%) selected "Strongly agree" as a response. (Friedlander, tables 635, 638).

In the "Scholarly Work in the Humanities" project it was found that "scholars are yet to be convinced by digital editions" (Brockman, et al. vii). And furthermore, "The limited use that humanities scholars have made thus far of encoded texts is not due to an insularity in their point of view but to the unavailability of the needed texts and to unrealized possibilities of new opportunities for research offered through encoding" (Brockman, et al 29). Thus, for various reasons, some of them being the inadequacies of current technology, scholars in the humanities continue to prefer printed texts to electronic texts.

Wiberly and Jones clarify the role of digitization of text as it benefits humanists:

> Because the crucial activity of the humanists is reading original sources, for the individual scholar, there is, with one major exception, little advantage to digitizing them. Digitizing takes time and then, unless printed out, digital sources must be read on screen. And currently, screen display is normally far inferior in readability to almost any print or handwriting on paper on which it is based. Humanists would not be making good use of their time if they spent it digitizing sources so that they could read the digitized versions with more difficulty than they read the originals. (429)

Digitization is still the answer for many original materials which cannot be examined by other means. Archival resources and scarce older works fall into this category. Presently, there are a larger number of on-going digitization projects than when the studies reviewed here were conducted so that the universe of electronic texts is continuing to grow. Acceptance may spread as the availability of texts increases.

Browsing

Browsing is an attribute of the stereotypical humanist profile. In her review of research and study of information retrieval habits of humanities scholars Green characterizes the humanities research process as preferring informal rather than formal bibliographic approaches to information retrieval (Green 2000, 202). In the DLF survey, 38% (most frequent answer) of 197 arts and humanities respondents indicated a "Strongly agree" response to the question "How much do you agree with *Browsing the stacks or journal shelves in a library is an important way for*

me to get information?" (Friedlander, table 636). The "Scholarly Work in the Humanities" project also found that browsing is still a central activity to humanities scholars and it is "still commonly associated with physical library collections or with printed materials." One scholar interviewed for that project did make a connection between browsing and Internet use (Brockman, et al. 23, 24) ("Surfing" the Internet might be considered a form of browsing in which an information seeker is not looking for specific information.")

The preeminence of the printed monograph in the dissemination of research in the humanities is considered next.

The Monograph

Studies in the latter 1990s and early twenty-first century are still finding that the monograph is the primary vehicle of scholarly communication in the humanities. (Lindholm-Romantschuk and Warner, 1966; Budd and Craven, 1999; Thompson, 2002). And printed works are still preferred over electronic surrogates or original electronic publication.

Thompson conducted a citation analysis study of references to primary and secondary materials in nineteenth-century British and American literary studies. Her findings summarized are that

> ...scholars in this field still generally fit the traditional profile of humanities scholars, using a large number of primary sources, drawing upon secondary sources from a broad age spectrum, and relying heavily on the monograph format for both primary and secondary materials. Electronic publishing is not generally considered a viable alternative to print publishing. Articles form an important aspect of literary research, but are not substitutes for monographs.

Thompson found that, in the texts she studied, citation to books as primary materials was at 79%, while books as secondary materials was at 68%. Citation of books as secondary materials out numbered citation to journal articles by a ratio of 3.7 to 1. She found citation to websites to be minuscule. (131)

Thompson's results also confirmed the use of a broad range of materials with regard to age of publication, with the "highest percentage of works cited in the sources evaluated...were six to ten years old, and the median citation age was 13 years." (132) From Thompson's findings and earlier studies, it appears that even if there were a significant corpus of scholarly research published electronically, it will be several more years before those works would be cited. It may be too soon to measure the use of web publication in scholarly writings.

This review of recent research reveals some adaptation in the classic profile of the humanities scholar. The characteristics of working alone, preference for print resources, and emphasis on browsing or finding information serendipitously still emerge in recent research. What also emerges is an increasing acceptance of electronic resources including the Internet, electronic indexing and electronic texts. Yet there still remain many barriers to the full acceptance of electronic texts and images for research purposes.

The next section looks at the plight of the printed monograph and issues with electronic publication.

Crisis in Scholarly Publishing

While acceptance of electronic publication for scholarly works is progressing very slowly, the printed monograph format has been in trouble since the 1980s. Beginning in the latter 1980s, in academic libraries in the English speaking countries and Europe, the escalation in the price of journals, mainly in science, technology, and medicine, produced by the for-profit sector caused what became known as the "serials crisis." The price escalation had begun in the 1970s, but had not reached crisis proportions until the mid-1980s. One aspect of the serials crisis was that the buying power of academic and research libraries was drastically reduced for the purchase of books (monographs). Research into the availability of monographs through the monitoring of cataloging records showed steep declines in the percentage of monographs acquired by libraries in all disciplines, but acutely so in the humanities. Studies by the Association of Research Libraries and by Perrault all showed the decline across the latter 1980s. (*ARL Statistics*, Perrault, 1994, 1995, 1997; Reed-Scott, 1996) A more recent study by Perrault (2002) of the monograph cataloging records in OCLC WorldCat found that publications from academic and trade mainstream publishers are added to the database within a few years of publication, but that more esoteric publications without ISBN numbers or not in English, are added more slowly over a long span of time. (Perrault, WorldCAT, chap.5)

Beginning in the mid-1990s a number of conferences in the United States sponsored by the Association of Research Libraries, the AAU (Association of American Universities), the AAUP (the Association of American University Presses) and the ACLS(the American Council of Learned Societies) focused attention on the declining sales market for the scholarly monograph.

The Knight Higher Education Collaborative in the United States has also devoted considerable attention to the plight of scholarly publication in the humanities and social sciences. The Roundtable on Scholarly Communication in the Humanities and Social Sciences was jointly convened in March 2001 by the Association of Research Libraries, the National Humanities Alliance, and the Knight collaborative with funding from the National Endowment for the Humanities. A number of position papers were issued and the key role of the scholarly monograph was re-affirmed.

> The scholarly monograph has proven to be remarkably well-suited as a vehicle for scholarly dissemination. It is not just that humanists celebrate books as object of art important in their own right...but that scholarly work in the social sciences and humanities is of a different kind and hence requires a different kind of communication–one that traditional print publication has served well. (*Policy Perspectives*, 2001, p.2)

The position paper goes on to address the present status of funding for research in the humanities:

> The very enhancements to infrastructure and equipment that make electronic publication feasible in the scientific fields have been heavily subsidized through the federal government's investing in scientific research; the humanities, in comparison, have received little federal support for the development of new modes of scholarly expression. Some fear that the very idiom of research in the sciences, medicine, and technology, with its emphasis on expediency of dissemination, may overshadow a more reflective model of scholarship in which publication is the result of an individual scholar's work to develop, extend, or refine the state of thinking in a particular subject. In the constrained economics of scholarly publishing, faculty in the humanities and social sciences have found it increasingly difficult to find print venues for scholarship that makes significant contributions to specialized areas of inquiry. The ultimate anxiety is that the humanities and social science will be permanently devalued within the academy. (3)

As a response to the crisis in scholarly publishing, proposals for electronic publication of scholarship began to emanate from the research library sector. In 1997, at a conference of the North American Serials Interest Group (NASIG), Gregory and Perrault introduced a new model for the electronic publishing of scholarly works. The model involved the initiation of the electronic publication of research by consortia administered by research libraries.The materials so published would be owned by the "commons" of the consortium and reproductions could be sold outside the consortium for a profit. The arrangement would include a refereeing process for quality control. The advantages of such a consortium arrangement would be the retention of the dissemination and profit from the scholarship within the institutions in which the scholarship had been produced. Another advantage would be the long term archiving and preservation of the publications as the consortium would have a research library for administration. (Gregory, et al. 1998, 346-347).

The Association of Research Libraries is leading a movement to wrest scholarly publishing away from the publishing conglomerates and give control of scholarly communication back to the universities in which research is being generated. SPARC is the initiative that is spearheading the publication and mounting of scholarly documents on the Web. Other programs and initiatives by the research library community and scholarly publishers are the Open Access movement, the OAI (Open Archives Initiative), Open language Archives Community (OLAC), and the Sheet Music Consortium. (McKiernan (2003)

On the way to encouraging electronic publication and open access, a number of major universities are establishing Institutional Repositories for the promulgation and archiving of scholarly resources, collections, and publications within the institution. These institutional repositories range from the digitizing of special collections of resources to encompassing all of the institution's budgetary data, reports, internal correspondence, and pre-prints, theses and dissertations, teaching materials, and other unpublished research. (Cervone, 44) All of these programs are in the forefront in the "transformation of scholarly communication" from the print to the electronic environment. And they are concerned with the publication and preservation of scholarship in the humanities as well as other fields.

Transformation of Scholarly Communication

The "digital dilemma" is that the increasing ubiquity of electronic publication and the declining sales of the scholarly monograph have almost forced the consideration and acceptance of electronic publication as the main venue of scholarly publication. In the future, there may not be much choice in the matter. While research libraries and a few scientific societies are leading electronic publication initiatives, there remain many objections to electronic publication in addition to those mentioned earlier in this paper.

The main objection to electronic publication from scholars in all disciplines is that they do not want to vitiate the peer reviewing processes which have been established over time. The Internet is a wide open "wild west" in which anyone can post all manner of texts and media. In the library arena there are ongoing projects to gain some semblance of control over the Internet. Libraries provide links to academic websites through virtual libraries and "webliographies." OCLC CORC is a cataloging project for Internet websites with the library membership of OCLC contributing the cataloging records. Individual libraries link to websites that provide scholarly contents for students to use in research. These are a means of quality control that bestows legitimacy upon the site, but not, however, a peer review of contents.

How might the humanities enhance the credibility and effectiveness of electronic publication?

Recognize and Reward Electronic Scholarship. The traditional peer reviewed publication formats are the monograph and the journal article. It has been suggested that recognizing and rewarding a wider range of scholarly publication, including the editing of electronic scholarly editions, and the compilation and editing of Web-based thematic research collections are at least partial solutions to the increasing inability of humanities scholars to publish in traditional print venues due to the economics of publishing. (Unsworth, 2003)

Reviewing of electronic publications would be a step toward attaining acceptance and legitimacy for them. The scholarly book review has long been a major component of the vetting process for monographs, just as peer review for journal articles. Extending the reviewing process to electronic publications and websites, both in reviewing the electronic texts and in the utilization of the Web for the publication of the reviews, would incorporate electronic publication into the realm of peer-reviewed scholarly communication.

Broaden dissemination through teaching. Teaching is one avenue for broader dissemination through websites that remain active and interactive. Whereas research and scholarship have been mainly utilized by researchers engaged in the same arenas, now it is possible to engage students in those activities through websites constructed for the purpose of teaching and learning. Faculty in various disciplines are directing web projects designed to present the primary sources, the oeuvre or corpus of a person's work, with related biographical, critical, visual,

audio, and archival materials incorporated into the mix. The websites are accessible to the world and not just to one or two classes of students. This kind of dissemination alone can broaden the awareness of the results of scholarship. Students can work with primary sources as well as secondary literature and can learn through projects which adhere to the highest academic standards.

Include the Web in evaluations of impact of scholarly work. The ISI (Institute for Scientific Information) citation indexes have been an accepted methodology of assessing impact of authors, researchers, journals, and institutions since the last half of the 20th century in the sciences. The humanities/arts, and to some extent the social sciences and professional fields, have not placed as high a significance upon citation counts from the ISI indexes. The Institute for Scientific Information is endeavoring to include web citation in the citation databases in order that scholars and researchers can track the impact of their work from both print and electronic sources. The ISI is now including the Web as well as peer refereed journals.

In the first years of the 21st century, using the Web to augment ISI citation counts to assess an author's impact has been suggested. Nisonger (2004) has provided a case study of ferreting out all references that one can possibly find to one's work. His article, "Citation Autobiography," is instructive in a methodology for compiling a record of citations from both printed and electronic sources and provides a useful taxonomy of publication types. His findings illustrate a few problems for Humanities scholars. Nisonger found that the ISI databases "captured approximately 40 percent of the author's print citations and about 30 percent of his total citation count...and 29 percent were from the web."(161-62) "Approximately half of the book reviews of the author's work were included in the ISI databases, but instances in which his contributed chapters to edited books were mentioned in book reviews could not be retrieved by searching the author's name." Furthermore, "ISI included citations in only two of the fifteen languages and from six of the twenty-eight countries represented in the author's total citation portfolio." (161) Perhaps the most important finding for this paper from the Nisonger article is that "Web citations display a substantially different profile from those captured by ISI and print citations in general because the Web includes a broader range of languages and countries of origin, is more likely to cite unrefereed journal articles, and seldom cites documents published before 1990." (161-62) The findings of the article illustrate the changes electronic publication through the Web are occasioning to scholarly communication.

Engaging the broader public. Recommendations for reaching beyond academe have been advanced. One of the recommendations from the Knight Roundtable on Scholarly Communication in the Humanities and Social Sciences is that those disciplines expand their audience beyond the scholarly venues encompassed in the peer review process. "Scholars in the humanities and social sciences have a special opportunity–some would say a special obligation–to engage the broader public in the questions they pose and address." (6) And it is suggested that the means of reaching this broader public are in electronic publication.

> What is needed in part is a greater societal recognition of the value of the humanities and social sciences, and greater financial support for the work of these fields. At the same time, scholars in these fields must engage in a focused effort to increase the number of those who understand and affirm that their lives are positively affected by the work of the humanities and social sciences. (p.10)

The editor of *Postmodern Culture*, the first electronic journal in the humanities, suggests that the audience for humanities scholarship might be enlarged, "not by dumbing it down, but by making it more readily available. Maybe if we did that, scholars would find an audience first, and a publisher second, instead of the other way around." (Unsworth, 6)

Reaching out to a broader public through electronic publication increases the public's access to scholarly information which might in turn lead to greater attention, valuation, and financial support. It is not that the scholarly audience for one's speciality should be ignored, but that the scholarship can be shaped to have additional appeal beyond the immediate scholarly constituency of one's core discipline. Just because work is designed to have broad appeal does not mean that the scholarly conventions of peer review and scholarly quality control need be abandoned. The Knight Roundtable on the Humanities refers to such a broader focus for the dissemination of scholarly productivity as nothing short of "Rewiring the Culture,"(Op Cit, p.10), or what this paper terms the "transformation of scholarly communication."

Despite the problems and objections, utilization of the Web for the dissemination of scholarship is becoming more acceptable. International conferences are posting papers on the conference website and publishing in electronic journals. Such promulgation as peer reviewed scholarship in electronic formats is a "new direction" in scholarly communication. The "digital divide" may still exist in the view of some, but electronic publication is becoming a more accepted venue in the transformation of scholarly discourse.

Conclusion

In many universities, globalization is now being regarded as a criterion for tenure and promotion. That is, one must be able to show that one's work has been internationally recognized. It is no longer sufficient to merely have publication, but that publication must have impact. There is no doubt that "publication" on the WWW increases exposure to the text that is published. If the humanities are to survive within academe, it is becoming necessary to go outside of academe for the recognition and acceptance of one's ideas. Electronic publication fits the concepts of globalization, broadening the base, and engaging a broader public. Scholarly work is no longer buried in books and journal articles that are read by only a few, but published to the world. When electronic publication becomes just another accepted peer reviewed venue, the "digital dilemma" as defined in this paper will no longer exist.

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