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# Reviewing Digital Scholarship: The Need for Discipline-Based Peer Review

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Digital Scholarship: The Need for Discipline-Based Peer Review

Abstract

Digital scholarship connects scholarly research to students and the public in

nontraditional ways. Authors present research in a digital form, which may include links

to primary source material and teaching guides. In this format, design and accessibility

are important, and unfortunately, those quick to dismiss all digital work as teaching or

outreach can overlook the research element. The confusion over what digital scholarship

is and how to evaluate it raises questions that can affect promotion and tenure decisions

in academic institutions. This paper will examine issues surrounding the availability of

peer review for digital scholarship, especially in the field of American History.

Mechanisms for peer review must be created by scholarly associations and applied to

digital scholarship to ensure that this form of scholarship is acknowledged and rewarded.

**Keywords:** Digital Scholarship, Peer Review, Collection Development, History, Social

Sciences, World Wide Web, Tenure

Reviewing Digital Scholarship: The Need for Discipline-Based Peer Review

#### Introduction

The growth of Web technology has changed the way researchers convey and access scholarship. Although some academic departments are supportive of researchers who have done digital scholarship, there are still many who do not acknowledge that scholarship can be produced in a digital format. Projects related to online teaching have gained wide acceptance and encouragement, but online scholarship has yet to achieve the same acceptance and reward as traditional scholarship. Digital scholarship often takes on the dual role of educating as well as presenting research. These blurred lines between teaching and research have led to confusion over how academia should recognize and rate digital scholarship.

The problem lies largely with the lack of respected peer review for digital scholarship. Those who are not involved with producing digital scholarship are often completely unaware of the effort and research that goes into these projects. This places an undue burden on individuals presenting themselves for tenure who not only have to do the original work, but also then must build a case for the value of the work. If authoritative peer review existed, such as blind or double blind review of the scholarship by two or more scholars in the field, it could allay many concerns of those not involved in digital work with regard to the value, impact and quality of the scholarship involved in a particular digital project. Confusion also stems from how the work is published. Digital scholarship can be "self-published." But in traditional scholarship models, self-

publication is looked down on. Worth is proven by having work accepted by a publisher with a good reputation.

Libraries and librarians also have a stake in peer review of these projects. As educators who work toward developing information literacy skills in students, as reference experts who direct researchers to scholarly materials, and as collection development specialists who are selecting projects to link to from their library catalogs, librarians seek ways to determine the worth of digital scholarship. Being able to determine academic value is critical as libraries work to support the teaching and research of the university faculty and students at a time when budgets are shrinking or remaining flat while materials costs are skyrocketing.

# **Definition of Digital Scholarship**

With so many avenues of online publishing available, it is important to define what is meant by "digital scholarship." Digital scholarship is not simply an archive of digitized material without interpretation or evaluation. It is not a gateway site of links pertinent to a topic. It is not a paper monograph converted to an electronic format. It is not a syllabus posted online with links to resources. Digital scholarship is the result of research, evaluation and interpretation. It can take many forms including exhibits, simulations and tutorials. It can also include the digitized primary resources that fueled the inquiry.

The University of Virginia Press Electronic Imprint defines digital scholarship thusly:

Digital scholarship is publication that (1) exists in digital format, i.e. as an electronic file or set of files that can be stored, transported, and displayed on general-purpose computers or other devices that manipulate digital files; (2) is incapable of being translated without loss of information or value into a non-digital format, such as that of a printed book, because it makes use of media, tools, structuring, or other features of computer presentation that cannot be conveyed in any other medium; and (3) is subject in all other respects to the demands of traditional print scholarship for originality, value, and selection via a process of peer review.

Another useful definition can be found in the report of the American Council of Learned Societies Commission on Cyberinfrastructure for the Humanities and Social Sciences.

The report recognizes a variety of tasks including tool building along new scholarly output as scholarship. The report lists activities that have been considered digital scholarship:

- a. Building a digital collection of information for further study and analysis
- b. Creating appropriate tools for collection-building
- c. Creating appropriate tools for the analysis and study of collections
- d. Using digital collections and analytical tools to generate new intellectual products
- e. Creating authoring tools for these new intellectual products, either in traditional forms or in digital form<sup>2</sup>

The report notes that of these activities, "Using digital collections and analytical tools to generate new intellectual products" represents the "core meaning and ultimate objective". However, the report also notes that we are still in the early phases of this developing area and that priorities need to be placed on the creation of the tools and structure necessary to its development. This work in important to the success of the medium and should be acknowledged and rewarded accordingly.<sup>3</sup> Admittedly, this leaves a somewhat squishy definition of what is scholarship. The University of Virginia's definition and part "d" of the ACLS commission's report converge. This is the level at which digital scholarship will most readily be recognized as scholarship. The other activities listed in the report would fall into an area of faculty endeavors that the AHA and MLA have included as potentially scholarly in their redefinitions of scholarly work.<sup>4</sup> This area is the least understood and faculty work in this area will face the greatest hurdles to be counted as scholarly output. Work considered scholarship by some will not be considered as such by others. There may be different levels of scholarliness to take into account. This is all the more reason that a structure for peer review that is recognized throughout the discipline is necessary. For the purposes of this paper, digital scholarship is defined as the creation of an original intellectual product in an electronic environment.

Digital scholarship is being created in all fields of study. This paper will examine digital scholarship that focuses on American History since it is an area with a wealth of resources that lends itself particularly well to digital scholarship. This paper will also examine the availability of peer review for digital scholarship and recommend that traditional peer review processes be applied to non-traditional scholarship.

### Background

The American Historical Association (AHA) has been concerned about the issues surrounding rewards for teaching and scholarship for years, even before the prevalence of digital scholarship.

In academia, there has been a sharp divide over what is considered scholarly and what is not. Research and the subsequent publication of research findings in peer-reviewed monographs and journal articles are considered scholarship. Teaching classes and public service are not. Teaching and service is important in a well-rounded portfolio but in no way compensates for the necessity of publishing monographs and journal articles in order to achieve tenure. Producing monographs and journal articles is still the most important measure of success for the scholar.

The nature of the discussion of digital scholarship in the field of history can best be understood by looking at earlier struggles of applied historians trying to get recognition for their work. The profession as a whole during the early 20<sup>th</sup> century had solidified around the academic community as the one authoritative body for the profession. In order to be a true professional one had to fit within the model of research and publication of monographs and peer reviewed journal articles. The 1970s saw the beginnings of a push from applied historians to have their work valued and to be treated on the level of academic historians.<sup>5</sup>

Ultimately, due to increasing tension within the profession, the American Historical Association (AHA) created an ad hoc committee to examine the issues of

fairness and value of work in the profession as a whole. *The Report of the American Historical Association Ad Hoc Committee on Redefining Scholarly Work* was published in December 1993.<sup>6</sup> The committee agreed that the criteria for faculty evaluation based on research, teaching and service was too heavily weighted toward research.<sup>7</sup> But more importantly for later digital scholarship, they warned that the discipline remained hierarchical and based on the university model where writing a monograph is the norm, which limited diversity.

Their recommendations were based on three important assumptions. Two of these assumptions factor highly when it comes to the evaluation of digital scholarship. One assumption is that problems of reward in the university system are not discipline-specific, so reform must be accepted higher up in the administration. The other is that by placing greater value on outreach the reward system should become more flexible, not simply add more work for faculty.<sup>8</sup>

The committee recommended an expanded list of scholarship. Producing scholarship based on original research was still ranked at the top of the list of possible academic pursuits. However, they recommended evaluation of these activities should take into account expertise, appropriateness, effectiveness, difficulty of task, and importance of activity. Moreover, it should encompass a wider range of work than just the monograph. The language of the report is important to the discussion of reviewing digital scholarship since digital scholarship so often presents a combination of teaching and research, which is very difficult for scholars to evaluate.

The AHA report touched off a lively debate in the profession about the "new" definitions of scholarship and whether they in fact should be practically applied. The

debate illustrates the entrenched views within the discipline about what should count as scholarship. The title of one essay says it all. "Calling a tail a leg" is how some, if not many, within the academy view a broadened definition of scholarship. <sup>10</sup>

Ironically, the mid 1990's was also the time when viable digital scholarship projects in history began to take off as the Web emerged as a new medium for producing scholarship.

In his 1998 article "Can You do Serious History on the Web?", Carl Smith noted that historians were increasingly using the Web in teaching by putting up collections of materials, digitizing resources for students, and allowing students to submit Web based projects and to use the Internet as a research tool. 11 To support his argument he used a digital scholarship project he worked on, "The Great Chicago Fire," to illustrate his point. He described unique documents that could be displayed online that would never fit in a monograph. The Web project allowed the exploration of tangents that could not be included in a book. The project was based on original work with primary resources; it had a scholarly argument, and took into account the research of others in the field. 12

Smith points out that his was not a simple project to put together. It required hardware, software, scholarly and technical expertise as well as institutional backing including recognition by the administration and department. It was costly in the sense of both time and money to develop. He also believed it was risky to do this type of work with no guarantee of academic recognition.<sup>13</sup>

In an effort to determine how open the history profession was to change, Dennis
Trinkle published his research in 1999 article entitled "History and the Computer
Revolutions: A Survey of Current Practices." The article was the result of a survey

mailed to faculty and chairs of 600 history departments and also sent out on listservs. The survey was meant to ascertain current practices of historians and their use of technology. He received 485 responses; evenly distributed across rank and technological skill. <sup>14</sup> Every instructor who returned a survey reported using email. Forty seven percent developed their own course sites, which could be as simple as posting a syllabus to as complex as developing their own Web resources. A significant number required students to create online multimedia materials such as Web sites or group Web projects. <sup>15</sup> However, some faculty expressed concern about the level of technical competence of students and had questions about the usefulness of multimedia. One common complaint was that the administration was imposing technology without consulting the faculty. <sup>16</sup> Still, most faculty members were optimistic and believed that experiments with the Web could suggest new modes of historical interpretation, exploration and instruction. <sup>17</sup>

The response to the survey was interesting especially when viewed in light of another survey done in spring 2000 by Deborah Lines Andersen and Dennis Trinkle titled, "Valuing Digital Scholarship in the Tenure, Promotion and Review Process: A Survey of Academic Historians," which sought to determine the value departments placed on digital scholarship. They did this survey based on the presumption that the traditional academic model of historical research and peer review publication was being challenged by new ways of using technology in history. The survey intended to find out whether the academic rewards system was adapting to changes. For the survey they considered digital history to include such things as ejournals, CD ROMs, Web based projects, teaching Web sites, and video tapes. <sup>18</sup> They tried to assess the "degree to which products of digital scholarship are used in tenure, promotion and review processes of

history departments in the United States." <sup>19</sup> In spring 2000 a twenty question survey was posted on the Web. An invitation to participate was mailed to every chair named in the American Historical Association's Guide to Departments of History. They received a 10% response rate, and found that departments were still bound by trends that favored traditional historical scholarship. The low response rate itself may be indicative of what little importance departments place on digital scholarship. Many responders sent cautions for untenured faculty about spending time on digital history. <sup>20</sup>

Very few chairs indicated their departments had formal written policies for assessing technology related activities concerning tenure. Furthermore, only one chair indicated that their university had a consistently understood policy about how technology-related activities would be evaluated.<sup>21</sup> For the question, "Would your university value creation of a database or digital creation (Valley of the Shadow, for example) as an equivalent of a monograph?" two thirds responded negatively. Overall, responders had a negative impression of such projects, viewed them as not sufficiently peer reviewed and were not thought of as "a formal research submission." The general feeling was that technology was encouraged in teaching but not in research.<sup>23</sup>

Also in 2000, Vincent Kiernan published an article titled, "Rewards Remain Dim for Professors Who Pursue Digital Scholarship." This article explained the findings of a case study at Indiana University where a group of about 150 faculty members voted on an application for tenure by an imaginary professor who had a large degree of digital scholarship on the resume. Tenure was denied for "Whitman," the test case. It was felt that, "A key problem with Whitman's bid for tenure—as with online scholarship in

general—is that professors and administrators have difficulty assessing the quality of online articles and courses."<sup>24</sup>

Edward Ayers, co-creator of the Valley of the Shadow Project, noted anecdotally that "Few colleges and universities have constructed the infrastructure to make complex digital undertakings possible...Not many institutions, despite encouragement from the Modern Language Association and the American Historical Association, have aggressively broadened tenure and promotion procedures to encourage the risk taking of digital projects. How should those projects be evaluated? As teaching? Scholarship? Service?"<sup>25</sup>

Finally, a report published in 2006 entitled *Our Cultural Commonwealth* defined the needs that new models of publishing present. "Recognizing that a revolution similar to the transformation of science and engineering addressed in the NSF report is inevitable for the humanities and the social sciences and that these disciplines have essential and distinct contributions to make in designing, building, and operating Cyberinfrastructure, the American Council of Learned Societies (ACLS) in 2004 appointed a Commission in Cyberinfrastructure for the Humanities and Social Sciences." The report this group produced calls for growth in collaboration among scholars, librarians and curators to create a "seamless cultural record." All should benefit, including experts outside of academia as well as the public. The need for navigation tools, preservation and copyright issues were recognized as problems as yet unsolved. The report echoed the concerns of those already cited about the conservative nature of scholarship in these disciplines: "structural elements of the academy have not changed, even though the world has." Entrenched systems of markets for publishing and prestige within the academy

predominate.<sup>29</sup> The report makes eight recommendations for building cyberinfrastructure dependent on the participation of various groups, including university administration, museums, scholarly societies, senior faculty, librarians and many others. The report gives one mention in the support of digital scholarship of the need for scholarly review: "The ACLS should encourage discussion among its member societies in developing recommendations with respect to evaluating digital scholarship in tenure and promotion decisions."<sup>30</sup>

A theme running through the report and indeed throughout the literature is that along with the great opportunities that digital scholarship can afford for communication and creativity, there also exists a general crisis in traditional scholarly publishing. A quick literature search shows dozens of articles about growing pressure on faculty to publish in traditional forms, all while presses are printing fewer books and libraries are buying fewer monographs and cutting serials due to the skyrocketing costs of journals and electronic databases.

Despite debating this topic for more than twenty years, the history profession is still struggling with the question of what is scholarly. Can forms of applied history be counted as research, or do they count only as teaching and public service? Since digital scholarship aims at being accessible and performs a teaching function, does that make it unworthy of also being considered research? How should digital scholarship be judged? Considering the teaching and research blend often found in digital scholarship, it is understandable how departments can be confused and have difficulties defining, let alone weighing, the value of digital scholarship.

#### Current availability of peer review of digital scholarship

#### **Aggregator Web sites**

Aggregator Web sites do not publish scholarly work. Instead, they collect links and information about sites in order to help users locate and navigate to material that will be useful to them. Two examples of aggregator Web sites are *History Matters* and *MERLOT*. When these Web sites were first released, there were a number of articles published announcing that peer review had arrived for digital scholarship. Both sites describe their process of peer review. These sites do provide some analysis of the layout, how useful it is, and to what audience the Web project is appropriate. They sometimes offer links to Web site reviews. However, while they do provide some form of peer review of the structure, they do not provide rigorous peer review of the scholarship itself.

History Matters: The U.S. Survey Course on the Web is an expansive aggregator site created by the American Social History Project/Center for Media and Learning of the City University of New York and the Center for History and New Media at George Mason University.<sup>31</sup> It is the largest site with materials on U.S. History, created largely for college and high school teachers and their students.

One of the modules the site provides is "WWW.History," an annotated guide to over 800 U.S. history Web sites. To be included in the "WWW.History" guide, History Matters claims to "have carefully selected and screened each site for quality." They provide a one paragraph annotation which summarizes the content of the site and offers opinions on the strengths and weaknesses of the site. The annotations are very descriptive and give excellent information about the site such as content (type of, not

quality), size, usability, and audience. Site annotations do not include review of scholarship, although on a separate page they offer a list of "favorite" sites.

In collaboration with *The Journal of American History*, twenty-five sites receive a scholarly review per year. Reviews are co-published by the JAH and *History Matters*.<sup>33</sup>
Reviewers are scholars from same field as the focus of the Web project. The reviews are approximately four to five paragraphs long. The choices of the Web sites for review match the makeup of the database itself. Thus, most of the sites reviewed are archives and come from libraries and museums.

In October 2005, a search for "Electronic Essay / Exhibit" yielded 363 sites.

Digital scholarship produced by individuals in academic departments is mixed in with many other Web sites. Libraries by far have produced the most with 109 sites, 55 of which were created by the Library of Congress. Museums and historical societies produced 61, PBS and its affiliates have 25, U.S. Government offices and departments have 16, and for-profit organizations and publishers have 25 sites included. Most of this work is published to make archives available to the public electronically, and is produced by an institution rather than an individual.

When *History Matters* credits individuals, their name and usually their affiliation are given. If they are in academia, sometimes the department is listed as well.

Individuals in academic departments seem to have created fifty-three sites in this collection. Many were from departments such as English, Film Studies, Law, and Cultural Studies, not from history departments. There also are a number of sites produced by amateurs, activists, collectors, re-enactors, and genealogists. Some individuals are described simply as "scholars" without ties to any organization.

MERLOT (Multimedia Educational Resource for Learning and Online Teaching) describes itself as "a free and open resource designed primarily for faculty and students of higher education. Links to online materials are collected here along with annotations such as reviews and assignments." Anyone can be a part of MERLOT and contribute materials to their database or comment on the Web sites found there.

Once a Web site is suggested, it is added to the database. As quickly as possible, Web sites go through "triage," a quick review to determine the potential value of a site and where it should go for more in depth review. Sites are labeled "accepted for review" if they pass triage but have not yet been reviewed. Once an editor has reviewed a site, it is given a star rating. A site must receive at least three stars to be accepted to the site permanently.<sup>35</sup>

MERLOT also has a place for members to review the site and give ratings. A star ranking with the number of members who reviewed the site is available directly under the peer review ranking. "Members" are individuals who have contributed material or who are simply interested in the Web site. Anyone can be a member, as opposed to MERLOT's selective editorial board.

MERLOT review follows the model of peer review in scholarship. Sites are reviewed to help faculty determines the quality, relevance and applicability of online materials for use in the classroom. The Web site carefully notes that peer reviewers are users of online materials, not only developers. There are peer review editors in each field, with seven editors for history. The names of editors and their affiliation are listed on the Web site. Peer reviewers are those who have experience using and evaluating

online resources; most are professors. The focus of the review is the quality of the content, potential effectiveness as a teaching-learning tool and ease of use.<sup>36</sup>

For quality of content, the reviewer looks to determine if the Web site presents valid and educationally significant concepts, models and skills for the discipline.

Critiques of content area are usually a paragraph long and tend to be descriptive rather than evaluative.

A search of the site produced similar results to that of the *History Matters* site with many Web sites produced by libraries, PBS, for-profit companies, museums, and amateurs in addition to professional academicians, all lumped together.

History Matters and MERLOT are excellent resources to find multimedia objects, primary resources and vetted content. Their search functions make the sites easy to navigate and find material. They have helpful abstracts and links to reviews of the project that are also helpful to deciding whether sites are appropriate for classroom use. The main focus of History Matters and MERLOT is on usability. The primary purpose of review is to try to determine if the content is represented accurately, useful to the public and if the site is well organized and easy to navigate. Educators can easily find worthwhile resources and course content. These sites are also inclusive. They allow access to all types of historians regardless of area of history studied, academic discipline or stature in profession. Amateurs are welcome to participate, which allows for a diversity of participants.

Neither of these sites is organized in such a way as to give special space to individuals who have produced digital scholarship as opposed to large archives produced by museums, libraries or special associations where no individual credit is given. These

sites lack academic weight and recognition from the academy. Inclusion in *History*Matters does not bear the same weight as having a work published by a traditional paper press. For now, individual scholars who spend time creating digital scholarship must then also build a case for the value of the work, through careful documentation, project reviews, grants earned, awards won and letters of support.

#### **Review articles**

Review articles written about digital scholarship are important because they help determine if a work is well done, they can identify the audience best suited to the work, they can rate the work, and they can help to publicize the work. For example H-Net Reviews and academic journals such as the *American Historical Review* are now reviewing digital scholarship. <sup>37</sup> Being reviewed can help build a case for having produced quality scholarship. However, this type of review is not the same as having an article accepted in a peer-reviewed journal or having a book published by an acclaimed scholarly press. It has the same value as a book review. It is helpful in determining nature and impact, but has no influence over selecting what to publish. Having reviews written about digital scholarship are helpful to argue value in work but are not sufficient.

#### **E-Publishers**

There a growing number of profit and not-for-profit electronic publishers. This eclectic bunch provides the services for digital scholarship that publishers do for paper monographs.<sup>38</sup> They select what is worthy for publication, they host the scholarship on their servers, and they edit and aid in building the interface and any other tools. They also

provide a critical service that is often overlooked: preservation. Whereas digital scholarship put up on a faculty member's personal Web site is in danger of becoming obsolete, e-publishers take in upon themselves to migrate scholarship through developments in software and servers so that what is available today will be accessible tomorrow.

E-publishers include a variety of discipline related groups started by scholars and often in collaboration with universities. The Institute for Advanced Technology in the Humanities is a research unit of the University of Virginia. University based and crossdisciplinary within the humanities, this group offers site hosting and a wide variety of support including technical, financial, and staff support to faculty.<sup>39</sup> University of Nebraska-Lincoln's Center for Digital Research in the Humanities is similar, offering research, design, and technical support.<sup>40</sup> The Networked Infrastructure for Nineteenthcentury Electronic Scholarship (NINES) project was developed by a group of scholars to aggregate peer reviewed digital scholarship in nineteenth-century British and American studies. The goal is to have a place for work to be "produced, vetted, published and recognized by the discipline." It also offers tools for researching in the digital humanities. The project seeks to promote new modes of criticism and is sponsored by several scholarly associations. 42 These centers and institutes provide invaluable technical support. Not only do they design interfaces but also they are creating tools for textual analysis and new ways to conduct research in the humanities.

University presses are also starting to publish digital scholarship. The University of Virginia Press has an electronic-only imprint titled ROTUNDA.<sup>43</sup> Another example is the Gutenberg-e Program, which is working with Columbia University Press to produce

ebooks from thirty-six selected dissertations. These are not simply converted electronic text; they have elements that cannot be translated into print.<sup>44</sup>

Traditional for-profit publishers are also publishing digital scholarship. Alexander Street Press is an example of a traditional publisher that is now quickly scooping up digital scholarship. For example, Alexander Street Press is now selling the database *Women and Social Movements in the United States: 1600 to 2000*, which was originally created as a digital scholarship project with undergraduate students. It is still under the editorial control of the original developers, Kathryn Kish Sklar and Thomas Dublin from SUNY Binghamton. Although this is a very positive development toward rewarding scholarship, ultimately it would be unfortunate for the public if for-profit electronic publishing became the only recognized avenue for publishing digital scholarship. The public good of having these resources free and available for all would be lost. As paid access to these types of resources tend to be very expensive, libraries would have to make very difficult decisions about what to purchase.

These forms of publication of digital scholarship most closely mirror traditional publication models, where work has to be peer reviewed and accepted before being included. These publishers would clearly benefit the researcher, as it is least disruptive to the system already in place and offer acceptance of scholarship in a way most understandable to faculty who do not work in digital scholarship. At this time, the numbers of digital scholarship projects published in these ways is relatively small compared to the amount of digital scholarship being produced. These projects are very large, complex and expensive. They are the result of years of work and a great amount of collaboration. These are viable models for producing peer reviewed digital scholarship

but they should not be the only way possible. If digital scholarship is to become established as an acceptable form of scholarship and the problems in scholarly publishing are to be resolved, other models for peer review need to be developed.

# **Institutional repositories**

Universities and other large institutions are creating institutional repositories such as the eScholarship Repository from the California Digital Library. 46 They provide space for hosting a range of scholarly material online, including digital scholarship. The number of institutional repositories is growing rapidly. They provide an online location for researchers to put their work including papers, research in progress, and data sets. The repository ensures the preservation of this research so that faculty output is not lost. These repositories work largely on the notion of open access. Therefore, researchers from all over are free to access the scholarship produced. These items are then, in a sense, selfpublished. Other than the possibility of checking that the work in not copyright-protected elsewhere, the scholarship is not vetted in any way. These repositories go a long way in enhancing scholarly communication. Furthermore, since material is "published" through the repository it is a model of publishing that is much more affordable to sustain. Librarians have been instrumental in the success to this point of open access models of scholarship and should continue to be involved in supporting institutional repositories and educating scholars and administrators about open access. The element that is missing from this model in order for it to be truly successful as a mode of publishing and not simply a means for scholarly communication is peer review.<sup>47</sup>

#### Conclusion

There are some scholars in the sciences that are questioning the validity of traditional peer review altogether. He advances have been made in posting preprints in open access archives. With the speed at which disciplines in the sciences move, by the time the "official" paper is published it is old news. Other advances in scholarly communication are being made which could make traditional peer review obsolete, such as new ways of determining impact factor. For example, the work by Johan Bollen and Herbert Van de Sompel on the MESUR Project that draws on user data at the article level to determine journal impact.

There may be a time in the distant future when peer review in the humanities and social sciences will no longer be useful. However, this argument seems to strike the same note as the discussion topic "will there be libraries in the future." It is interesting as an intellectual debate, but it is not today's practical problem in the history profession.

For those involved in producing digital work the value of this type of scholarship is evident. However, although the history profession as a whole is opening up to technology in their communication and teaching, by using email, word processing and creating course Web sites, a struggle still exists to get academic departments to accept digital scholarship on the level that it deserves, based on the scholarly effort involved. There are many benefits to the medium. Digital scholarship stimulates curiosity; it encourages students to become engaged in historical arguments and the process of "doing" history. But, the current perception is that digital scholarship does not hold the same weight as published monographs.

Digital scholarship is complex and often collaborative work. Librarians can be instrumental to the ultimate success of digital scholarship. Collection development and public service librarians should keep abreast of development and be well aware of where digital scholarship is available. They should find ways of promoting it and making patrons aware of the resources that are available to them. Furthermore, librarians as a whole, as with open access initiatives, should continue to campaign and educate their faculty about the opportunities and benefits of digital scholarship. Librarians could aid in supporting the recognition of the need for peer review, the value of discipline-based peer review in particular and the promotion of a discipline-based peer review system once established.

What will peer review look like? There are two possibilities in which that kind of peer review will come. The first avenue for peer review is through e-publishers. A growing number of for profit and not for profit publishers are currently providing an avenue for publishing that looks like traditional presses. However there are relatively few opportunities for work to be published in this way and this method does not take advantage of the freedom and diversity the Web environment provides for producing digital scholarship.

An alternative should come from the disciplines themselves. Scholarly associations such as the AHA must do more to recommend change. They must each form a committee or editorial board and take it upon themselves to review digital scholarship. Not to publish or host it, but to vet and reward excellence in digital scholarship in such a way that it is recognized by faculty members within a discipline.

There are further complications—and opportunities—for rewarding faculty work presented by the redefinitions of scholarship by the AHA and MLA. Despite fevered debate over the past twenty-plus years, there is still no general agreement on how to evaluate and reward digital scholarship. For faculty members coming up for tenure, each department must negotiate these issues individually. There is a critical need for a system of peer review in which the academic value of a work of digital scholarship is universally accepted by the faculty within a discipline. Only at this level will the risk of producing digital scholarship be alleviated for the scholar not only for gaining tenure, but also for acknowledgement throughout the academy.

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