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How the Success of Open Access Publishing Can Stimulate Improved Access to Grey Literature

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Abstract

With a focus on biomedicine and public health, this paper will demonstrate that the emerging success of open access publishing provides a model for improved access to grey literature. It will describe pioneering efforts to provide access to grey literature, and recommend ways to build upon these initiatives. Finally, it will argue that the evolution of electronic scholarship will eventually collapse the distinction between grey and non-grey literature.

Lessons from the Emerging Success of Open Access Publishing

According to the Bethesda Principles released in 2003, two conditions must exist for a scholarly article to be classified as open access: It is available without charge to anyone with an Internet connection, and it is deposited immediately in at least one online repository for the purpose of long term-archiving [1]. The primary rationale for unfettered access is that it will facilitate more rapid scholarly advances. In the biomedical field, two open access publishers are BioMed Central and the Public Library of Science.

This business model has the potential to fundamentally alter the economics of scholarship. During the print era, publishing companies were essential to the distribution of scholarly materials. In today's Internet era, electronic distribution can be more widespread at a much lower cost. Despite this reality, many companies have charged annual subscription increases that greatly exceed the rate of inflation [2]. Therefore, it is not surprising that these companies have expressed strong opposition to the challenge posed by open access publishing [3].

Despite the concerted opposition, it is not inevitable that open access would lead to the demise of publishing companies. These corporations could adjust their business models and develop new services in order to remain viable. Non-profit societies—which depend upon publishing revenues to fund their other activities—are at the most risk from open access. In response to this concern, some commentators have explored how societies might successfully manage this transition [4].

As a means of capturing its turbulent history, Peter Suber has developed an excellent timeline of milestones in the movement toward open access publishing [5]. For much of this history, widespread open access has seemed like a naïve fantasy. One major obstacle has been motivating scholars to change their publishing habits, particularly because tenure systems continue to value the traditional publishing process [6]. In addition, publishers have consistently argued that open access publishing represents an unproven business model [7].

The recent adoption by the National Institutes of Health (NIH) of a “public access” policy has swung the pendulum in favor of open access publishing. The policy, which took effect in May 2005, encourages authors of NIH-funded research to deposit their work in NIH’s publicly available digital archive, PubMed Central. Participation is voluntary and authors have up to twelve (12) months to deposit their articles [8].

The initial NIH proposal called for a six (6) month embargo period [9]. Supporters of open access were disappointed at the extension to 12 months before an article is made freely available, which occurred in response to a strong lobbying campaign by publishers [10]. I share this disappointment, and also feel that open access should be mandatory for recipients of tax funds. Although the proposal could be stronger, NIH’s endorsement of the concept of open access is nevertheless a significant step forward. As one of the world’s leading funding agencies, it has the potential to set a powerful example.

How authors will respond to the NIH policy remains unclear. As it begins to take effect, librarians will continue to play a critical role in educating scholars about the benefits of open access in furthering scholarship. Although it is true that open access may herald significant savings for library serials budgets, emphasizing this point gives the impression that our deepest concern is balancing the books rather than furthering knowledge.

As the NIH proposal takes effect, it is a good time to reflect upon its political history. Librarians were among the stakeholders at the drafting of the Tempe Principles in 2000, which became a seminal document that has influenced the ongoing definition of open access publishing [11]. Librarians have also formed coalitions to lobby on behalf of open access, most notably the Association of Research Libraries’ Scholarly Publishing and Academic Resources Coalition (SPARC) [12]. These coalitions have allowed librarians to have a voice in policy discussions on both sides of the Atlantic [13, 14].

For now, the largest achievement of this political process is the NIH proposal. Although it could be better, it would be even weaker—and perhaps not exist at all—without the efforts of librarians. This history should serve as a valuable example as we consider how to improve access to grey literature.

Improving Access to Grey Literature

A leading definition of grey literature is, “that which is produced on all levels of government, academics, business, and industry in print and electronic formats, but which is not controlled by commercial publishers” [15]. Although some grey literature goes through a peer review process, peer review is a prerequisite for scholarly articles published commercially. Peer-reviewed sources tend to report the most striking results of any investigation, but the grey literature might contain contrary findings that the authors chose not to publish [16]. This is one example of the invaluable context that grey literature provides for evaluating the peer-reviewed literature.

The primary concern of the open access movement is the peer-reviewed literature. It is usually easy to identify articles of interest, only to face financial barriers while attempting to access some of them. Financial barriers do not impede access to grey literature, but bibliographic barriers do. In many cases people do not know how to identify sources of interest within the grey literature.

In the field of biomedicine, every researcher knows that the premiere database for peer-reviewed content is MEDLINE. Although MEDLINE does not have everything, it is an excellent place to begin. There are no comparable databases for discovering grey literature, although librarians have made tremendous attempts to capture it within different disciplines. The webliography for the 2005 Library Association of the City University of New York Institute contains a sampling of these efforts, in fields ranging from Asian forestry to transportation research [17].

The New York Academy of Medicine’s (Academy) Grey Literature Report is included within the Institute’s webliography. The Report was begun in 1999 and appears four times a year. Academy librarians catalog and link to recent reports from foundations, think tanks, and government agencies pertaining to all aspects of public health. The genesis of the Report was recognition of the difficulty members of the public health workforce had in identifying these valuable resources [18]. Producing it is an intensive effort that requires the efforts of two selectors and one cataloger [19].

Within the community of health sciences librarians, the Grey Literature Report is often lauded as an example of proactive librarianship. There is no doubt about the Academy’s dedication to public health grey literature, or of the comparable dedication of the numerous organizations that have made an investment in identifying obscure resources in other fields. And yet, for the most part, these excellent portals remain unknown to scholars. Achieving systematic access to grey literature will require a different approach than building standalone databases at different institutions.

What is required is a bibliographic infrastructure for grey literature that is just as sophisticated as what is currently available for peer-reviewed materials. There are many practical impediments to building a grey literature equivalent to MEDLINE. Grey literature is published on an irregular basis, with far fewer conventions than exist in the traditional publishing environment [20]. Today's bibliographic databases could not accommodate it.

As legitimate as such concerns are, they are a symptom of a lack of interest in grey literature rather than a cause. The peer-reviewed medical literature tends to report clinical advances, such as a breakthrough drug or new surgical procedure. These advances—which benefit individual citizens rather than society as whole—garner significant media attention, both on television and in newspapers. The majority of the multi-billion dollar NIH budget supports such research [21]. Both the media interest and budget priorities indicate that American society places a high premium upon clinical research. Publishing companies have responded to this demand by building profitable resources, which feed seamlessly into the bibliographic databases designed for peer-reviewed literature.

The health policy analyses and government reports that comprise public health grey literature are inherently less dramatic than research studies that announce a new medical procedure. This is unfortunate, because these documents are essential to developing policies for improving public health. If Americans exhibited as much interest in these materials as they did in new clinical breakthroughs, they would be easier to locate and access. Ultimately, the contents of MEDLINE are a reflection of society's medical priorities.

The best way to improve access to grey literature, therefore, is to modify American medical priorities in order to place greater emphasis upon population health. Such a shift would yield benefits besides better access to grey literature, of course. But librarians should recognize the pleasant byproduct of this shift in perspective.

Changing medical priorities is a Herculean assignment, particularly in the current political climate. It makes the struggle over open access seem easy; in that case, librarians are merely seeking to improve access to materials that society already values. This would be a much harder battle that would require extensive coordination with health professionals.

It is reasonable for librarians to wonder whether we would have any place in such a debate. I believe we would, because an increased interest in public health would generate greater demand for quality information. For strength in this political struggle, we could draw upon the lessons of library activism on behalf of open access publishing.

Collapse of the Distinction Between Grey and non-Grey Literature

For the foreseeable future, the distinction between grey and non-grey literature will remain. The political argument outlined above assumes that this is the case.

Over the long term, however, it seems likely that this distinction will be much less relevant than it is today. One reason for this is the mere existence of the Web, which—in comparison to the print era—has reduced the burden of locating grey literature [22]. Although it is still much easier to locate the peer-reviewed literature, the gap between the two has narrowed.

Closing this gap entirely will depend upon further exploitation of the capabilities of the Web. Although scholars have embraced the digital environment at varying rates of speed, by this point scholars in every field of endeavor have made innovative use of electronic media [23, 24]. It has become imperative to manage these new forms of scholarship. The current attempts to meet this challenge indicate an eventual flattening of the distinction between grey and non-grey literature.

The movement to construct institutional repositories at many universities is a response to the potentially limitless range of digital scholarship [25]. The Massachusetts Institute of Technology's D-Space platform is the most well known example of institutional repository software. But the goal remains the same regardless of the software: collecting and preserving the full range of an institution's scholarly output, at all stages of development. Much of what might appear in these institutional repositories is grey literature.

An endeavor related to institutional repositories is the Open Archives Initiative, which seeks to provide integrated access to the contents of multiple digital archives [26]. Open archives protocols would link together numerous institutional repositories. Assuming that the protocols are robust enough to allow easy resource discovery, they would provide access to resources that otherwise would have been difficult to locate—i.e., the grey literature. This access would be simultaneous with access to traditional peer-reviewed sources. Because every facet of the scholarly process would be available through the same search process, the distinction between grey and non-grey literature would become less clear.

Although much of the focus on institutional repositories has been within universities, the concept is transferable to any organization. In fact, the managers of the Open Archives Initiative state explicitly that anyone is welcome to utilize the technology [27]. The traditional producers of grey literature, such as think tanks and foundations, could also utilize these new technologies in order to broadly distribute their works.

Even if grey literature becomes easier to locate, that does not necessarily mean that there would no longer be a distinction between it and the peer-reviewed literature. For that claim I am drawing upon the experience in physics, in which uncorrected

rough drafts (“pre-prints”) of new discoveries receive just as much respect as a published article [28]. In addition, several commentators have thoughtfully articulated a vision for scholarly communication in which published journal articles do not occupy the privileged position they do today [29].

Whatever the relationship that emerges between peer-reviewed and grey literature, librarians will be essential for navigating any information landscape in which grey literature is readily available. Rather than devoting as much energy to finding grey literature as we do today, librarians could educate patrons about how these materials relate to more traditional resources. This possibility opens up a new domain of instruction, and also provides one way for librarians to demonstrate their continued relevance in the digital age.

Conclusion

This paper discusses the different barriers that hinder access to the peer-reviewed and grey literature—financial barriers for peer-reviewed materials, and bibliographic barriers for grey literature. The open access movement has enjoyed some success in furthering access to the peer-reviewed literature, and its political history presents one model for furthering patron access to grey literature. As librarians continue to pursue better retrieval of the grey literature, we should also begin to consider the possibility that the distinction between grey and non-grey literature will eventually become less relevant.

References

1. Suber, P. (2003). Definition of open access publication. In *Bethesda Statement on Open Access Publishing*. Retrieved May 1, 2005, from <http://www.earlham.edu/~peters/fos/bethesda.htm#definition>
2. Kyrillidou, M. (2004). Serials trends reflected in the ARL statistics 2002-03. In *ARL Bimonthly Report 234*. Retrieved May 1, 2005, from <http://www.arl.org/newsltr/234/serials.html>
3. Hunter, K. (2004). Open access: yes, no, maybe. In *Nature Web Focus: Access to the Literature*. Retrieved May 1, 2005, from <http://www.nature.com/nature/focus/accessdebate/3.html>
4. Willinsky, J. (2003, April). Scholarly associations and the economic viability of open access publishing. *Journal of Digital Information 4* (2). Retrieved May 1, 2005, from <http://jodi.ecs.soton.ac.uk/Articles/v04/i02/Willinsky/>
5. Suber, P. (2005). Timeline of the open access movement. Retrieved May 1, 2005, from <http://www.earlham.edu/~peters/fos/timeline.htm>

6. Andersen, D.L. (Ed.). (2004). *Digital scholarship in the tenure, promotion, and review process*. Armonk, NY: M.E. Sharpe.
7. John Wiley & Sons Inc. (2004). *Wiley submission to the [UK] select committee*. Retrieved May 1, 2005, from <http://www.wiley.com/WileyCDA/Section/id-104308.html>
8. National Institutes of Health. (2005). *Policy on Enhancing Public Access to Archived Publications Resulting from NIH-Funded Research*. Retrieved May 1, 2005, from <http://www.nih.gov/about/publicaccess/>
9. National Institutes of Health. (2004). *Notice: Enhanced Public Access to NIH Research Information*. Retrieved May 1, 2005, from <http://grants1.nih.gov/grants/guide/notice-files/NOT-OD-04-064.html>
10. Weiss, R. (2004). NIH proposes free access for public to research data [Electronic version]. *The Washington Post*, September 6, 2004, A21.
11. Association of Research Libraries. (2000). *Principles for emerging systems of scholarly publishing*. Retrieved May 1, 2005, from <http://www.arl.org/scomm/tempe.html>
12. Association of Research Libraries. (2005). *Scholarly publishing & academic resources coalition*. Retrieved May 1, 2005, from <http://www.arl.org/sparc/>
13. Medical Library Association. (2004). *SPARC letter to NIH re: open access to scientific information*. Retrieved May 1, 2005, from http://www.mlanet.org/resources/publish/pub_resources.html
14. Association of Research Libraries. (2004). *[Submission to the UK Science and Technology Committee]*. Retrieved May 1, 2005, from http://www.arl.org/sparc/resources/OAWG_UK_Submit.PDF
15. *New Frontiers in Grey Literature. Fourth International Conference on Grey Literature: GL 1999. Proceedings*. (1999). Amsterdam: GrayNet.
16. Banks, M. (2004). Connections between open access and access to gray literature. *Journal of the Medical Library Association*, 92, 164-166.
17. LACUNY Institute 2005. (2005). Open access webliography: grey literature. Retrieved May 1, 2005, from <http://lacuny.cuny.edu/institute/2005/greylit.html#grey>
18. Myohanen, L., Taylor, E., Keith, L. (2005). Accessing grey literature in public health: New York Academy of Medicine's Grey Literature Report. *Sixth International Conference on Grey Literature*. Amsterdam: TextRelease.
19. Ibid.

20. Bogdanski, S., Chang, B., Lawal, I., Baugh, G.A., Blanton-Kent, B.W., Coonin, B.R., et. al. (2005). Collecting grey literature: an annotated bibliography, with examples from the sciences and technology. *Science & Technology Libraries*, 25, 35-70.
21. Gebbie, K.M., Rosenstock, L., Hernandez, L.M. (2003). *Who will keep the public healthy?: Educating public health professionals for the 21st century*. Washington, DC: National Academies Press.
22. Bogdanski, S., Chang, B., Lawal, I., Baugh, G.A., Blanton-Kent, B.W., Coonin, B.R., et. al. (2005). Collecting grey literature: an annotated bibliography, with examples from the sciences and technology. *Science & Technology Libraries*, 25, 35-70.
23. Association of Research Libraries. (2003). *Scholarly tribes and tribulations: how tradition and technology are driving disciplinary change*. Retrieved May 1, 2005, from <http://www.arl.org/scomm/disciplines.html>
24. Center for History and New Media. (2005). Retrieved May 1, 2005, from <http://chnm.gmu.edu/about.php>
25. Lynch, C. (2003). Institutional repositories: essential infrastructure for scholarship in the digital age. In *ARL Bimonthly Report 226*. Retrieved May 1, 2005, from <http://www.arl.org/newsltr/226/ir.html>
26. Open Archives Initiative. (2005). Retrieved May 1, 2005, from <http://www.openarchives.org/>
27. Open Archives Initiative FAQ. (2005). Retrieved May 1, 2005, from <http://www.openarchives.org/documents/FAQ.html>
28. Till, J.E. (2001). Predecessors of pre-print servers. Retrieved May 1, 2005, from <http://arxiv.org/html/physics/0102004>
29. Van de Sompel, H., Payette., S., Erickson, J., Lagoze, C., Warner, S. (2004, September). Rethinking scholarly communication: Building the system that scholars deserve. *D-Lib Magazine 10* (9). Retrieved May 1, 2005, from <http://www.dlib.org/dlib/september04/vandesompel/09vandesompel.html>