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The Middle Way: The Very Low Cost Model for Scholarly Publishing

G. Natriello & M. Rennick
Teachers College, Columbia University

EdLab, The Gottesman Libraries
Teachers College, Columbia University
525 W. 120th Street
New York, NY 10027

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The world of scholarly publishing has been undergoing a number of transitions for the better part of a decade. These transitions are being driven by broader forces of globalization (Berger and Huntington, 2003; Anderson, 2001; Lechner and Boli, 2003) and consolidation that are affecting commercial entities, including all parts of the publishing industry (Schiffrin, 2000), as well as by new technological developments in computing and communications (Kahin and Varian, 2000). The result has been a constellation of forces that has prompted great discontent among scholars who produce academic work and their home institutions that provide support for such work and then find themselves paying high costs to acquire it back for their library collections. Nearly unheard has been the voice of the broader public that often funds research and is typically denied access to its results in the published scientific literature.

Two options have been most prominent in the debates on the future of scholarly publishing. On the one hand, commercial publishers have argued that they provide valuable services in production and marketing that are essential to a vibrant exchange of ideas and the broader dissemination of knowledge. These publishers have maintained that they provide substantial value added services, earlier in printing, marketing, and distribution, and more recently in digital archiving, aggregating, and interlinking (Hunter, 1997). Moreover, they have claimed that delivering such services requires capital investments that justify subscription costs that have been rising faster than inflation for the past decade and more.

On the other hand, proponents of open publishing initiatives have argued that the academic community can be mobilized to support free content distribution (Willinsky, 2000). Efforts to deliver scholarly products without cost to readers hinge on the ability to use the internet and web technologies to handle the distribution of content in digital form. Digital distribution is viewed as having low marginal costs after initial editorial costs are covered, and this makes online journals particularly appealing to those who wish to expand the audience for scholarly products beyond the confines of academe (Odlyzko, 1997; Bot, Burgemeester, and Roes, 1998). Within the academy, the benefits of free online subscriptions are eagerly contemplated by libraries that have been confronting serial costs that promise to continue to rise at 8 to 10 percent annually (Candee, 2004).

In this paper we propose a third alternative to the two current contenders for the way forward in scholarly publishing. We propose that very low-cost (VLC) subscriptions paid by a broadened audience of institutions and individuals might offer some significant advantages for the future of scholarly publishing and indeed for the wider dissemination of knowledge.

WHAT IS THE VERY LOW COST MODEL FOR SCHOLARLY PUBLISHING?

The model we envision would operate on two foundational principles. First, it would to minimize all costs associated with publication, including costs for content development and costs for content distribution. Second, the model would seek to acquire the broadest

possible audience for the academic content in question. These two principles should allow the publishing enterprise to offer content at the lowest possible cost by spreading the minimal costs involved over the largest possible readership. It is important to understand that the VLC model will avoid the conflict between garnering support for publishing activities and permitting the greatest possible access. In the VLC model, it is the growth of access at the lowest possible cost that generates support for publishing enterprises. Key elements of the VLC model include both those designed to keep costs low and those intended to maximize readership.

Elements Designed to Minimize Costs

An editorial process that is embedded in the activities of an on-going academic organization

By connecting scholarly publishing activities to larger academic entities such as colleges and universities, or research and development centers, it will be possible to create synergistic relationships in which the publishing activities can be supported by the infrastructure of the larger organization without an undue call on resources (See Gene Glass article on this). There are numerous examples of journals that are connected to such larger organizations. Maintaining and increasing such sponsoring relationships can be an important element in achieving VLC models for academic publishing. Such organizations include those noted in Table 1.

Table 1 – Potential Sponsoring Organizations for Academic Journals

Colleges and Universities Research Centers and Institutes Graduate and Professional Degree Programs Libraries Professional Associations Foundations Research Offices and Departments Regular Conferences

Educational institutions such as colleges and universities are natural sponsors of academic publishing since the scholars they employ produce much of the content of academic journals and since their libraries are among the most important subscribers supporting journals. Within colleges and universities, units such as graduate and professional degree programs may be logical sponsors of journals related to their fields of study, and libraries may be good locations for the publishing activities from units throughout the institution. Research centers and institutes may find it advantageous to publish journals in their areas of focus. In some cases journals previously published as part of university units have been moved to commercial publishers to take advantage of more professional services and economies of scales. However, new communications technologies have created new advantaged for decentralized publishing operations that

may make it more feasible for organizations not in the traditional publishing business to sponsor scholarly publishing.

In addition to colleges and universities and their subunits, other organizations would seem to good candidates as sponsors of publishing projects. These include professional associations who have sponsored traditional publications, foundations who have an interest in publishing in areas in which they have active programs, and research offices and departments of government agencies and other non-profit organizations. Beyond enduring units, scholarly publishing may also advance the agendas of conferences and other regular events that lead to the creation of intellectual products.

None of the potential sponsoring agencies noted is particularly surprising, and it is possible to find examples of each of these types of organizations supporting academic publishing initiatives. What is new is that new technologies are making it easier to such sponsoring organizations to delivery professional quality publications for modest costs. New technologies have lowered the cost of entry overall and allow for greater experimentation as new publications can be created to test audience interest. A by-product of this lower cost of entry may be the appearance and subsequent disappearance of journals that are published for shorter periods of time as interests wax and wane.

A very decentralized network of publishing activities

New communications technologies may it possible to create highly decentralized publishing activities. By creating a network of a large number of decentralized publications, it will be possible to maintain operations at a scale that is manageable for scholars for whom editorial activities will be only one of their roles while concurrently allowing for aggregation across the decentralized sources of material to create broad and deep repositories of scholarly materials.

Decentralization opportunities occur both at the level of individual publishing offices and within such offices at the level of individual staff. In the former case, editorial offices can be small and widely scattered without impeding the ability to assemble meaningful and substantial bodies of material. In the later case, activities within editorial offices can be distributed so that segments of activities can be performed by different individuals at widely disparate locations, connected only by online tools that serve to organize and facilitate the activities of the publication. These options allow publishing initiatives to make use of editorial talent when and where it is available.

The use of low cost technical solutions

By relying on low cost technology to create and maintain online publishing sites, it will be possible to minimize the call on journal resources while providing convenient access to scholarly content. The recent evolution of online publishing tools has included several stages with important implications for academic publishing. At the outset of the internet and world wide web boom, academic institutions were well positioned to place materials online, and university web sites were among the most popular online destinations. A

relatively small number of academic publications took advantage of this stage to reach new audiences thanks to the technology skills of students and staff. This initial stage was followed by the mass movement of commercial ventures online, and with this came rising technical and aesthetic standards for online publishing that were achievable primarily through substantial investments in projects done by web development and design firms, investments that proved beyond the reach of most scholarly publications. Toward the end of this stage, commercial publishers stepped in to claim online publishing as a special expertise and service that they could provide to their clients, including academic journals. None of these early stages proved optimal for the development of online academic publishing.

Most recently, a new wave of online publishing options has emerged to offer scholarly publications relatively low cost, high quality publishing platforms. Some of these have emerged from open software and shareware initiatives that offer “free” software to institutions and individuals with the requisite technical knowledge and hardware and network infrastructure (e.g., Public Knowledge Project, 2004).

Our own efforts have been directed toward the development and marketing of a commercial publishing platform offered on an application server provider model (Frameworkers, 2004a). Academic publications subscribe to the publishing platform as a web-based service and need no special equipment or technical staff. A related software product provides full support for editorial office operations (Frameworkers, 2004b). Both products are available for a low monthly cost, and a completely functional publishing and editorial office configuration can be created for monthly costs typical of cable TV or cell phone service. Service can be started or stopped at will to allow maximum flexibility.

With the technology costs reduced to being irrelevant, academic publishers operating online can devote their resources to the development of high quality content and to the building of large audiences for that content.

Elements Designed to Maximize Readership

Easy indexing and archiving strategies and standards

By developing readily available and low cost tools for collaborative indexing and archiving, it will be possible to promote and sustain access to scholarly content. Much scholarly content is accessed in the course of searching subject area indexes. Indeed, scholarly content is perhaps most valuable to other scholars and their students when they are purposively engaged in their own work and are reviewing relevant literature. This means that reaching the traditional audiences for products of academic publishing requires a commitment to having materials fully indexed (Willinsky and Wolfson, 2001).

Fortunately, there are ongoing initiatives that (e.g., Open Archives, 2004; Mongin, Fu, and Mostafa, 2003) that are working to make the indexing and archiving of scholarly materials readily available to academic publishing ventures. Perhaps even more

importantly, there are emerging commercial search services that have an interest in improving access to academic content. For example, the University of Michigan has recently announced an agreement with Yahoo to facilitate links to electronic scholarly resources through Yahoo's search service. (University of Michigan News Service, 2004)

Automated subscription management tools

While easy indexing options will facilitate access to individual articles relevant to readers with focused and purposive interests, and while such efforts are essential to maintaining and enhancing demand for scholarly materials offered through institutional subscriptions sold to academic and research libraries, academic publishing initiatives also have an interest in acquiring and managing individual subscriptions to entire publications. Such subscriptions, traditionally taken by individual scholars, are in decline across a range of publications as libraries move to institutional digital subscriptions available on the desktop. The potential for increasing individual subscriptions is dependent upon the availability of three things: automated subscription management tools, low-cost marketing strategies, and enhanced content-related services. We consider these in order.

In order to offer subscriptions to academic publications at very low cost it is necessary to manage those subscriptions in the least expensive way. Commercial publishers have offered subscription management or fulfillment services as another advantage of the economies of scale available to large publishers. However, new technologies of communications and information management offer new opportunities for the decentralized management of subscriptions.

By integrating subscription management functions into network-based publishing platforms, it will be possible to reduce the costs associated with managing subscriber accounts. This will make it possible to offer very low cost subscriptions in a variety of configurations from pay per article, to annual subscriptions, to limited time access options such as semester length subscriptions for students. Our own publishing software (Frameworkers, 2004a), includes the option of integrate subscription management and e-commerce to handle all aspects of the subscription process.

Low cost marketing strategies

Early web publishers, particularly those who were academically oriented, seemed to assume that "if you build it they will come." However, the enormous growth in the availability of online content and destinations of all sorts means that those associated with academic publications must now actively seek readers who have an ever expanding number of choices. Marketing is an essential element of any effort to expand an audience of readers.

Fortunately, the same communications technologies that have enabled providers of scholarly content also make it possible to market to new readers at low cost. Our own experience publishing the *Teachers College Record* (www.tcrecord.org) is instructive in this regard. We began the most recent online version of the journal in 1999 with about

3000 registered readers culled from lists of authors, reviewers, and scholars in the field of education. These registered members of the online site receive access to all articles available online. Registration requires only that a reader provide a name and an email address to establish an account. At this point we have not charged for online access. We relied on a weekly email newsletter to announce new online content, and we provided readers with an easy utility to email their colleagues to alert them to new articles appearing online. We engaged in only limited advertising in print outlets related to scholarship in education. Now, four years later, our registered base of readers is approaching 100,000. This figure dwarfs our list of about 2200 institutional subscriptions and about 500 individual subscriptions. Of course the real test will come over the next year as we begin to offer online subscriptions to these 100,000 individuals.

Enhanced content-related services

Efforts to acquire continuing individual subscriptions to online scholarly materials may well require development activities that go beyond the simple provision of text. These could include community oriented activities such as discussion boards and live chats related to published scholarly materials. They could also include multi-media elements for such materials or the availability of specialized tools to work with content in particular academic special areas. Once again, to keep the costs of scholarly materials very low, any development activities would need to follow the principles outlined above such as linking them to the ongoing activities of sponsoring organizations.

What is “Very Low”?

Subscription costs substantially lower than current serial subscriptions

By focusing on strategies to minimize costs, VLC publications can be offered for only a fraction of current serial costs. If efforts to contain costs are maintained, then providers of scholarly content should have maximum flexibility to set subscription prices to achieve the largest possible audience. At this point we do not know what subscription prices might be, but they would have to approach the prices of popular magazine subscriptions on per issue or per page basis to be perceived as offering significant value.

BENEFITS OF THE VERY LOW COST PUBLISHING MODEL

With the current models for the support of scholarly communications in disarray, there will be benefits to any viable alternative that serves to expand and extend academic publishing. However, the VLC model we have proposed has three specific benefits worth consideration. The model should lead to the broader availability of scholarly material, serve to make academic publishing more responsive to readers, and possibly reduce incentives to violate copyright regulations. Each of these would strengthen the scholarly communication system.

Broader availability of scholarly content

Because the subscription costs of VLC publications are substantially more modest than current serial subscriptions, they have the potential to reach more institutional and individual subscribers. Expanding the reach of scholarly communication can be important to extend the impact of academic work, to enhance public understanding and support for such work, and to build a base of financial support for academic publishing activities.

Responsiveness to reader concerns

Because the revenue base under the VLC model is derived from end users or readers, VLC publications have an inherent incentive to be responsive to the needs of readers. Several publishing models currently being considered to support scholarly communications do not contain such incentives. For example, open access models that propose to offer free unrestricted access contain little incentive for academic content providers to meet the needs of readers. So too, traditional models that rely on high cost institutional subscriptions that are not paid by readers have limited incentives favor the needs of individual readers over the needs of acquisitions librarians who actually purchase subscriptions. Models that propose to support academic publishing through fees charged to authors contain little incentive for academic publications to place the needs of readers before those of authors. Unless academic publications can begin to consider seriously the needs of readers, the long-term prospects for the system of scholarly communications seems limited.

Diminished incentives to violate copyright limitations

By providing high value content services at low cost, the VLC model has the potential to reduce the incentives to violate copyright. Maintaining support for the existing intellectual property regime requires a sense of fairness shared by content providers and content consumers. The VLC model may serve this purpose well by attaching modest charges to the use of scholarly materials. This arrangement will avoid the temptation to use high priced materials outside the bounds of legal regulations. It may also avoid the ambiguity over content ownership rights associated with completely free access models for scholarly publishing.

FURTHER DEVELOPMENT OF THE VERY LOW COST MODEL

The task before us is to begin to develop academic publishing projects based on the VLC model. As we have noted above, the tools to begin such projects now exist, and, of course, we are most excited to begin working with academic publishers drawing on the low-cost software platforms we have developed to support editorial office operations and online publishing. Over the next year we will be working with a variety of colleagues and clients to launch a number of new publishing ventures or to re-position existing publications to take advantage of the VLC model. We expect to learn a great deal from these early efforts and to refine the model as we move forward.

Looking beyond these initial projects, we anticipate a number of lines of activity for future development work, including better tools for editorial operations and tools to integrate additional services into academic publishing operations.

Automated editorial tools

Thus far improvements in communications and computing technologies have done little to reduce the cost of core editorial office activities such as the review of submissions and the refinement of content. Creating tools to increase the efficiency of editorial operations is a logical next step on the road to reducing the costs of academic publishing. Such tools might provide assistance to editors in the initial screen of manuscripts through the analysis of text. More structured manuscript preparation requirements might be coupled with online analysis options that allow editors to check on different aspects of manuscript structure. Specialized tools might also be created to assist in the vetting of analysis and reporting techniques comment to certain fields of work.

Additional services to readers at modest fees

Although the jury is still out on the question of how much readers will pay for content online, including academic content, there is the potential of offering additional services, including research and educational services, for additional fees to subscribers of academic journals. Determining the services to be offered and how to position specific journals to offer them is an important task for the near term future. Equally important would be the development of online platforms that facilitate the integration of publishing and other services to enhance the manageability of diverse services.

CONCLUSION

The advent of new communications and computing technologies has begun to transform both academic work and the scholarly communication process. The changes that have occurred over the past decade have been substantial, but those likely in the next decade may be even greater. Finding the appropriate model to sustain serious and compelling academic publishing projects will ensure that scholarly communications processes move forward and share fully in the new opportunities that cut across all sectors.

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