

Open Society Institute



**Guide to Business Planning
for Launching a New Open Access Journal**

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The series of OSI guides to assist journal developers and publishers consists of three separate but complementary publications.

This volume is the

- *Guide to Business Planning for Launching a New Open Access Journal (Edition 2)*

There is also the

- *Guide to Business Planning for Converting a Subscription-based Journal to Open Access (Edition 2)*

and the

- *Model Business Plan: A Supplemental Guide for Open Access Journal Developers & Publishers (Edition 1)*

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Section I: INTRODUCTION

I-A. About This Publication

This Guide has been published by the Open Society Institute (OSI) to encourage and assist planners, developers, and potential publishers of new Open Access journals in any field of science and scholarship. It provides a good starting point for those contemplating the launch of a new journal based upon an Open Access business model that provides free availability of research papers. For those who are already in the process of launching an Open Access journal, this Guide provides resources to help ensure that your planning is complete.

While other business planning aids are readily available (for example, see Appendix III-B. Web Resources for Journal Publishers), this is the first guide to business planning specifically for Open Access journals. The focus here is on how to plan for the launch, ongoing operation, and long-term sustainability of a new scholarly journal under a business model that provides for free access on an ongoing basis. Typically, Open Access alternatives to subscription-based journals are published by educational and nonprofit entities such as universities, libraries, learned and professional societies, consortia and associations, and independent nonprofit corporations. Increasingly, however, for-profit publishers are recognizing the potential role of integrating Open Access models into their businesses, and this Guide may serve their interests as well. Additionally, it may also be useful to potential grantors or other financial supporters when evaluating proposals or grant requests and business plans for Open Access initiatives.

For the purposes of this document, we use the definition of "Open Access" promulgated by the Budapest Open Access Initiative (BOAI).¹ The BOAI defines Open Access to scientific and scholarly literature to be:

...its free availability on the public Internet, permitting any users to read, download, copy, distribute, print, search, or link to the full texts of (peer-reviewed or pre-print) articles, crawl them for indexing, pass them as data to software, or use them for any other lawful purpose, without financial, legal, or technical barriers other than those inseparable from gaining access to the Internet itself. The only constraint on reproduction and distribution, and the only role for copyright in this domain, should be to give authors control over the integrity of their work and the right to be properly acknowledged and cited...

Additional information about Open Access and the BOAI can be found in the Appendices and on the BOIA web site.²

¹ The Budapest Open Access Initiative (BOAI), promulgated February 14, 2002, aims to accelerate progress in the international effort to make research articles in all academic fields freely available on the Internet. The BOAI arises from a meeting convened in Budapest in December 2001 by the Open Society Institute (OSI). For the full text of the initiative, see: <http://www.soros.org/openaccess>.

² See: <http://www.soros.org/openaccess> and Appendices III-E and III-F.

I-B. Contextual Introduction: Open Access Benefits and Challenges

The Open Access movement comprises many complementary initiatives, including digital scholarly journals, discipline-specific e-print servers, institutional repositories, and author self-archiving. While these initiatives vary in intent, scope, and implementation, they all support the same concept: that scholarly research should serve the interests of the scholars themselves, and that those interests are best served by the broadest access to the largest body of high-quality research.

Subscription-based Models: The Changing Market

Open Access proponents have presented both philosophical and pragmatic arguments for Open Access and its intended benefits to science and society in general. We will focus in this Guide on reviewing practical market and business considerations—what one might see as new market realities—in planning for, developing, and publishing a new journal under an Open Access model.

Benefits to Researchers

The subscription-based journal model currently prevalent is no longer achieving the goal of efficiently maximizing access to research material. Traditionally, scholarly publishers (as aggregators and distributors) and institutional libraries (as managers and preservers) served complementary roles in facilitating scholarly communication. Over the past several decades, however, the economic, market, and technological foundations that sustained this symbiotic publisher-library market relationship have begun to shift. For academic libraries, a significant market for academic journals, this has taken the form of increasing dissatisfaction with traditional print and electronic journal price and market models—models that have become less relevant and more difficult to sustain in a period of rapidly escalating prices and relatively flat library budgets.

Researchers, as *authors*, require access to the largest possible audience to which to disseminate their findings; researchers, as *readers*, need the broadest possible access to the relevant literature. However, the current model, which recovers costs—and often generates a surplus—through subscriptions and license fees can no longer achieve this.

Several concurrent market and environmental forces are constricting the availability of scholarly research and sapping the effectiveness of subscription-based models:

- Price increases relative to academic library budgets: Scientific and scholarly journal prices have increased an average of 8.5% per year since 1986, while library budgets have remained essentially flat. Large academic research libraries now spend three times more money on serials compared to 1986, yet they purchase 5% fewer serial titles.³ Whatever the cause for these price increases, and despite the relative inelasticity of journal prices for institutional subscribers, the net effect has been to reduce the number of journals to which institutional libraries subscribe. Further, personal subscriptions to scientific journals have dropped to less than half of what they were 20 years ago.⁴

³ See *ARL Statistics 2000-2001*: <http://www.arl.org/stats/arlstat/graphs/2001/2001t2.html>.

⁴ See Carol Tenopir and Donald W. King. *Towards Electronic Journals: Realities for Scientists, Librarians, and Publishers*. (Washington, DC: Special Libraries Association), 2000, p.32.

- Volume of research published: Significant increases in the overall volume of published research, especially in the sciences, has further widened the gap between the published research available and what institutional libraries can afford.

These trends translate into less access to the available scholarly and scientific research. This is true regardless of the reasons behind the price increases. Whether driven by legitimate cost increases or aggressive corporate profit seeking, the effect remains the same: fewer institutional subscriptions and narrower user access. Thus, as these trends evolve, traditional subscription-based models may become increasingly inadequate to serve the best interests of scholars and scientists themselves.

Open access models offer an alternative that better serves the needs of scholars themselves. Open access models enable authors to reach the widest possible relevant audience. Additionally, research has demonstrated that articles available online via Open Access have higher impact rates than proprietary online and print articles.⁵ This amplified impact, visibility, and recognition are integral to academic professional advancement.

Benefits to Publishers

Open access models also provide an alternative to publishers whose traditional subscription-based models are becoming ineffective. The primary economic reason for publishers to adopt Open Access models is that, in the changing market environment described above, revenue levels from paid subscriptions are becoming increasingly difficult to sustain, let alone grow. The high prices of some scholarly and scientific serials have put mounting pressure on the institutional library market, and the library market's response to that pressure—primarily in the form of journal cancellations—affects virtually all journal publishers, irrespective of their own pricing policies. In this context, Open Access models may provide publishers with a viable alternative to paid subscription models.

Besides decreased academic library purchasing power, several other trends in the scholarly and scientific journal market combine to weaken the ability of some academic journal publishers to compete under a subscription model:

- Consortium purchasing: Consortium purchasing has effectively lowered costs and broadened access to journals and information services for many academic libraries. However, the publishers that benefit from such arrangements—via increased market penetration and expansion to new market segments—are those with content offerings of sufficient mass to appeal to consortia organizers. Smaller publishers, including many society publishers, generally do not participate in consortia deals and face increasing cancellations as such deals consume an ever-larger share of academic library budgets.
- Bundled content offerings: Several large commercial publishers have extended the practice of content bundling in a manner that allows the publisher to maintain or expand market share and increase revenue while widening the breadth of content to which a library's users have access. As with consortia purchasing, such deals work well for those publishers with sufficient content mass to offer them. However, as with consortia pricing, large content aggregation deals often leave fewer funds available for libraries to purchase or sustain subscriptions to the offerings of the (typically) smaller publishers unable to compete with them.

⁵ See Steve Lawrence. "Online or Invisible?" *Nature* 411 (6837).

Over time, it will become increasingly difficult for smaller publishers—even of low-priced journals—to remain independent and viable in the increasingly rapid current at this confluence of trends. As many smaller publishers are, by design, low margin operations, it will prove increasingly difficult for them to survive in this market environment if they continue to rely on subscription models. Open access publishing might well prove more practical and sustainable over the long term.

Open access publishing helps ensure that publishing practices align with the expectations of authors and readers. As the grassroots demand for Open Access to research continues to grow, the publishers that best accommodate changing customer expectations and market realities may enjoy the greatest chance for survival. Additionally, Open Access responds to an inescapable market dynamic. Academic research libraries and other institutional subscribers comprise the largest market for scholarly journals. However, most of these institutions are now experiencing contracting or static purchasing power, which serves to accelerate institutional subscription cancellations. Publishing a journal under an Open Access model can be a response to the market-narrowing effects of this contraction. The challenge of publishing a new Open Access journal might be viewed as an effective alternative to the challenge of trying to maintain the *status quo* in an increasingly diminishing and resistant market.

In sum, the current system of scholarly journal subscriptions—with prices that often preclude broad subscriber and user bases—limits, rather than expands, readership, availability, visibility, and community benefit. Repeated rounds of journal price increases, and the cancellations that they generate, act to reduce the audience still further. In this environment, Open Access journal publishing delivers significant benefits to all its constituent stakeholders, including publishers, and to society at large.

Challenges of Publishing a New Open Access Journal

Implementing an Open Access model may have significant implications for adopting organizations. These vary with the particular circumstances of each journal, and appear, in practice, in so many varieties and combinations that it is impossible to catalogue them all. Still, we can view and discuss the issue from two broad perspectives: 1) the economic and market context in which the Open Access model would be applied, and 2) the organizational and cultural issues that will affect a publisher's willingness and ability to adopt an Open Access model.

Economic Issues

The economic risk entailed with launching and publishing a new journal with an Open Access model will depend on each journal's financial particulars. As Figure A illustrates, the relative risk that will attend producing any given journal will derive largely from three interrelated financial indicators: the journal's cost structure, its revenue or income level, and its operating margin. For example, the higher the costs, the greater the risk of foregoing subscription revenue unless the risk can be reduced by lowering the expenses. Similarly, the greater the dependence on revenue from subscriptions if the journal were to be fee-based, the greater the risk unless this dependence can be reduced (by lowering costs) and alternative revenue sources (other than journal subscription fees) can be developed. And, the greater the dependence on the journal's operating margin or surplus to fund organizational programs outside of the publishing operation, the greater the risk unless alternative funding sources can be secured or these dependencies can be reduced.

Figure A: Financial Risk of Open Access

Financial Indicators	Relative Risk	
	Low	High
Cost Structure	Low	High
Revenue	Low	High
Operating Margin	Low	High

Cost Structure

The expenses incurred to publish a journal vary from one to the next. Throughout this Guide, we assume that most potential publishers of new Open Access journals can properly determine the full nature and extent of their *own* operating costs, both fixed and variable, under the journal’s proposed business model. Therefore, in discussing costs here, we focus on the impact that Open Access or a particular funding component might have relative to a journal’s cost structure.⁶ Journal publishers—both nonprofit and commercial—range from single-title publishers to large organizations. Some organizations have in-house professional staffs to provide editorial, production, sales, marketing, and administrative support. Others outsource some, or all, of these functions to volunteers (for example, unpaid editors and referees drawn from a society’s membership), paid part-time staff or independent contractors, or third-party service providers. Further, while there are some economies of scale in journal publishing, larger organizations tend to bear greater incidental costs than many smaller organizations. Some (typically nonprofit) publishers enjoy long-standing in-kind contributions (both explicit and implicit) from academic institutions, sponsors, and other organizations. These in-kind contributions—including, for example, office space, administrative support, technical hosting and support, etc.—effectively offset costs that would otherwise be incurred by the publisher.

Obviously, high cost structures impose a steeper hurdle for any income-generating model to clear, while low cost structures allow the publisher greater flexibility in selecting a business model. Thus, in terms of initial risk perception, high cost operations will need to carefully evaluate the ability of Open Access models to offset such cost structures. Alternatively, in instances where the organizational resolve to adopt an Open Access model is great, publishers may also elect to deploy the lowest possible operating structure in order to substantially limit costs.

The incremental costs of publishing an Open Access journal lie primarily in the development of a digital publishing capability—new to first-time publishers, as well as to those established publishers that currently publish only in print (or that have a limited online presence, such as presenting only tables of contents).⁷ These costs include:

⁶ Publishers that want to compare their costs against industry benchmarks, may wish to consult Carol Tenopir and Donald W. King. *Towards Electronic Journals: Realities for Scientists, Librarians, and Publishers*. (Washington, DC: Special Libraries Association, 2000), especially chapter 12; and Dryburgh Associates Ltd. "The Costs of Learned Journal and Book Publishing: A Benchmarking Study for ALPSP." (September 2002).

⁷ John Wallinsky examines a range of economic issues that scholarly associations are confronting in moving their journals online, with a focus on the possible viability of an Open Access format. See John

- Site design and technical development, including implementation of a user interface, file or database structure, access authentication system, back-up systems, etc.;
- Licensing and implementing an editorial “pre-press” workflow system;
- Content formatting and metadata tagging; and
- Web site hosting and storage.

Implementation costs will depend on the features and functionality of the digital service, ranging from simple hierarchical file structures to support a volume and issue presentation of PDF and/or HTML files to more sophisticated indexing, searching, formatting, and linking. Additionally, some of the funding model components described in this Guide can add to the complexity—and the cost—of a digital journal implementation.

Variable print and distribution costs (and related expenses, such as print edition storage, resends, and the like) depend on whether the journal elects to publish in electronic-only or dual media formats.

A new journal that may have considered paying stipends or honoraria (for example, to referees or editors) might consider avoiding such fees. The journal’s Open Access publication would provide the rationale for such a position. Often, professional altruism and prestige will provide sufficient motivation and incentive to ensure the support of voluntary editors and referees.

The majority of fixed, “first copy” costs may be about the same for a subscription-based or Open Access journal. The cost impact on administrative support and marketing and other non-variable promotion costs will depend largely on the new business model(s) deployed. Some of the business model components described below may require that a publisher add or reallocate expenses of a particular type (for example, to actively support online sponsorships). Optimally, total costs will be kept as low as is practical. From a broader perspective, the publisher of a new journal might seek to control costs by cooperative, cost-sharing initiatives with other publishers and journals. For example, publishers could share the development and operational expenses for electronic publishing infrastructure, for administrative support, and for other non-competitive elements where cooperation might reap economies of scale. Such cooperation could lower each journal’s effective cost-per-article significantly. One should evaluate the suitability of such cooperation, or the use of commercial services that support Open Access publishing through scale infrastructure models,⁸ prior to investing in the development of their own systems.

Income Stream and Operating Margin

In most instances, the absolute level of a publisher’s income or revenue required from the journal will also determine the performance barrier for any new business model and will thus affect the initial risk incurred. Unless an organization enjoys a significant operating surplus overall, which helps to support the publishing program, the publisher will need to continue to generate journal-related income sufficient to cover its costs. On the other hand, publishers of journals that currently run an operating deficit might elect to

Wallinsky, “Scholarly Associations and the Economic Viability of Open Access Publishing,” *Journal of Digital Information*. Vol. 4, No.2 (April 9, 2003).

⁸ BioMed Central (www.biomedcentral.com) is one commercial service that offers such infrastructure support for Open Access publishers in the life sciences. BioOne (www.bioone.org), a nonprofit initiative for the biological sciences, supports both Open Access and fee-based access. Additional resources may be found in the Appendices.

make operational changes (for example, shifting to digital-only delivery and securing in-kind contributions) that may lower expenses and allow the new journal to breakeven under an Open Access model.

New journals with a *low economic risk*—relatively low costs, low revenue, and low margin requirements—have the easiest apparent path to Open Access publishing. However, none of the above is to say that publishers with high cost structures, high revenue dependencies, and/or high operating margin requirements cannot or should not attempt to adopt an Open Access journal model. Rather, it simply suggests that such publishers will face greater *initial risks*. Yet consider this: given the increasing difficulty that publishers of new journals will experience in sustaining a subscription-based model, those with a *mid to high economic risk* in publishing under Open Access may face even greater difficulties launching the new journal under a subscription model.

Organizational Issues

While economic issues obviously loom large to publishers considering adopting an Open Access model, reconciling such a model with existing organizational practice and expectations (if there is an existing organization) can prove equally challenging. It is important, then, to anticipate the impact that a first foray into online Open Access publishing will have on the major stakeholders in the process: both internal stakeholders (including authors, society members (where relevant), publications staff, management, etc.) and external stakeholders (including librarians and other institutional subscribers, online information distributors, subscription agents, etc.). Adopting an Open Access model for a new journal, especially when generally characterized by electronic-only publication (which raises its own, discrete issues), may require that you overcome considerable systemic inertia to change the perceptions of various stakeholders.

Providing free and unrestricted access to a journal radically disrupts the publishing business model familiar to most publishers and organizations. While the cost recovery models and value-added information services described elsewhere in this Guide might provide publishers with revenue generating opportunities, in most instances those services alone will not deliver the surpluses to which larger journal publishers may have become accustomed. Therefore, it will often be difficult—strategically, financially, and psychologically—for many publishers to accept an initiative which may not add to their publishing surpluses.

Further, publishing a new journal under an Open Access model involves financial risk, as discussed above. This can prove unattractive to both commercial and nonprofit publishers alike. Most learned societies, in particular, are managed with a custodial approach, not as risk-taking entrepreneurial operations. However, as the Open Access market becomes a more favorable marketplace—while the subscription-based market continues its contraction—the risk of inaction, when the high priority is to launch a new journal, may shift to outweigh the risk of action.

In addition to the business model related issues discussed above, learned and professional societies have long-standing relationships with their members and often act as focal points for the research communities they represent. While society dues often include a “free” journal subscription (as an exclusive benefit) that otherwise would be available only at a price, society members also enjoy other rights of membership—and, presumably, additional value—beyond the *quid pro quo* of the journal subscription itself. Societies, therefore, provide community-supporting services in exchange for their members’ dues that exceed the value allocated to the journal subscription. Society publishers—by clarifying the

benefits of membership—should be able to provide Open Access to a new journal’s content to all researchers (members and not) with the support rather than resistance of its members.

Publishing Medium Issues

Online dissemination is a defining characteristic for Open Access. Therefore, publishers must address cost and market issues if the new Open Access journal will be available only electronically.

While the implications of journal prestige on academic professional advancement are well understood, they demand particular consideration if your new journal will be online-only. Attracting a steady stream of author submissions is essential to any scholarly journal. If not handled carefully, publishing your new journal in electronic-only format might make it more difficult to attract quality papers. Scholars sometimes dismiss electronic-only publications as ephemeral or inferior to print, although such perceptions vary by field of study. Researchers accustomed to print journals may share your values for Open Access as readers, but hesitate to follow through as authors by submitting their papers for publication. Surveying the attitudes of your potential authors and readers will help you determine whether a digital-only publication is advisable, or whether you should publish in both digital and print formats (although the latter might be published on a delayed and/or cumulative basis).⁹

If you choose to publish only in a digital format, you may still have a couple of reader and author issues to address. Perhaps the most obvious issue, the continued preference of many readers and authors for print, can be accommodated by publishing articles in PDF or other print facsimile formats.¹⁰ Further, convenience print editions can continue to provide print versions for those who insist on them (and are willing to pay for them). Additionally, readers benefit when authors exploit the particular capabilities of electronic publishing, such as the inclusion of supporting data sets and multidimensional models. Encouraging the submission of papers that utilize these features will help overcome the demand for print and allay any misapprehensions about the electronic presentation of research.

From a marketing perspective, even when publishing a free online journal, one must pay particular attention to establishing and maintaining a high brand position relative to the journal’s peers. The brand is established and reinforced in multiple ways, but the principal drivers will be the journal’s quality—including the value of the content, the status of the editorial board, and the cumulative impact of the journal’s articles—and market awareness. Content and editorial quality should not be adversely affected by an Open Access business model and/or electronic-only distribution.

⁹ Several studies examine the attitudes and behaviors of academic and scientific researchers towards electronic forms of scholarly communication. See: “Authors and Electronic Publishing” (Worthing, West Sussex: Association of Learned and Professional Society Publishers, 2002), and Amy Friedlander. “Dimensions and Use of the Scholarly Information Environment” (Washington, DC: Council on Library and Information Resources, 2002).

¹⁰ While the remaining half-life of print is constantly (and inconclusively) debated, for our purposes it is only necessary to acknowledge that print, as a journal publishing medium, will not disappear precipitously.

I-C. Special Considerations: Launching a New Open Access Journal

Launching a new Open Access journal would seem to be an ideal way to advance scholarly communications in one's field. Why wouldn't scholars and researchers support it? After all, the electronic journal will be free to all users. But every new journal, regardless of its attributes and audience, faces a set of special challenges. Besides the obvious need to establish, implement, and operate under a sound business and/or funding model to sustain long term publication, there is more:

The journal may not succeed in a competitive environment until it attains sufficient prestige and the ability to attract quality research papers (or demonstrates its ability and progress towards attainment), and such may not be attained until the journal succeeds. Virtually every new journal faces this "prestige paradox."

Anyone contemplating the launch of a new Open Access journal needs to take into account the stakeholders in the scholarly communication process, as well as the particular attributes of the journal and the specific context in which it publishes. Besides their primary role of delivering peer reviewed scholarly research to a potentially broad audience, journals are integral to the system of academic professional advancement. Publishing in scholarly journals conveys recognition and prestige to authors and their institutions; both the quality and quantity of published research weigh considerably in decisions affecting author career advancement. One indicator of the quality and importance of an author's work—an endorsement by peers—is the prestige of the journal in which the paper is published.

While this interdependence between the prestige of a scholarly journal and its relationship to professional advancement is universally understood, it demands particular consideration from anyone proceeding to establish a new journal. Attracting a steady stream of authors' submissions presents one of the foremost challenges to *any* new scholarly journal. Without a well-regarded publishing history, it is difficult to attract quality papers—the very papers needed for a journal to gain prestige.

Publishing your new journal in electronic-only format might well exacerbate this author perception, making it more difficult initially to attract quality papers. Authors accustomed to print (and/or favoring an established journal with high prestige and impact) may share your values for Open Access *in principle* but hesitate to follow through with support by submitting their papers for publication.

Scholars sometimes dismiss electronic publications as ephemeral, or in other ways less than ideal (such as believing that professional advancement will be affected more positively by print publication). Perceptions vary by field of study. Some scientific disciplines—including physics, mathematics, economics, and computer science—have well-established pre-print or working paper traditions that have translated well into digital environments. Authors in other disciplines without such practices might prove more hesitant in embracing electronic-only publications. They will need to be informed and encouraged.

These market perceptions have implications for the presentation and management of your journal as well. Throughout this Guide, we will emphasize the necessity of a professional presentation of a new online journal, while at the same time keeping journal operating costs low. It is challenging, but not impossible, to balance these two requirements. Some argue that voluntary labor obviates the need for a professional publishing staff for an Open Access journal, and doubtless in some cases this will prove correct. For other new Open Access publishers, however, the cumulative burden of editorial

and administrative responsibilities will pall over time, bringing the need for full- or part-time dedicated journal staffing. Even in these cases, however, staffing costs and overheads should be significantly lower than for larger publishing operations.¹¹

None of the above suggests that you should not launch a new online Open Access journal, even for a discipline with no precedent for such a publication. But it would be naïve, even catastrophic, to ignore the stark market reality. Several sections of the guide to business planning that follows present you with an opportunity to anticipate and address the challenges this market perception creates. Further, you should not assume that the journal's free and open availability will overcome such prejudices. Indeed, in some disciplines, you will have to carefully position your journal so that the absence of a user-side subscription fee is not misconstrued as vanity publishing or otherwise a lessening of content value. Simply asserting that your proposed journal will only publish refereed research of the highest quality is not enough. After all, no prospectus for a new scholarly journal declares a mission of publishing second-rate research.

Selecting prominent journal editors and establishing an eminent editorial board provides the best way for a new journal to overcome the above market objections. Fortunately, online publishing allows you to publish research papers incrementally, without meeting an artificial page minimum to make up a print issue. This ability to build a journal's contents gradually allows new online journal editors to be selective and to maintain high quality standards for the journal's content. Further, you need to articulate and emphasize the particular capabilities that a digital journal can deliver. For authors, compelling features would be the comparative speed to publication and broad dissemination of their work, and potentially, the linking of the paper to such complementary and integral information as research data sets, audio and video data, and models and simulations. Furthermore, many authors will respond favorably to enlightened terms for copyright and control over their work.

Your Open Access model will seldom figure high amongst an author's primary motivations for publishing in your new journal. Nor, perhaps, should it. The publisher's principal goal should be to aggregate and disseminate worthy research to a broad audience, and the emphasis should be on the beneficial effects of Open Access on scholarly discourse. An Open Access model provides a means to those ends, especially when positioned as an alternative to an expensive established journal. You will not achieve your goal, however, if you limit your universe of contributing authors to the circle of altruistic researchers committed to advancing Open Access. To gain author-reader acceptance, Open Access journals must demonstrate their superiority over the current closed access models. Over time, the cumulative effect of successful Open Access journals will broaden support for Open Access journal initiatives both in principle *and* in practice, while a wide range of business and funding models will prove that this success can be sustained over the long term.

¹¹ For example, one model assumes two half-time staff for such open access journals. See L. Halliday and C. Oppenheim. "Economic models of digital-only journals." PEAK Conference (March 2000).

Section II: GENERAL

II-A. Potential Open Access Business and Funding Models: An Overview and Taxonomy

Developing a sound business/funding model is a critical concern of publishers considering whether to launch a new journal under an Open Access model. Selecting the components of the model appropriate to your particular journal will depend not only on the extent of the expenses that must be covered, but also on the mission and structure of your publishing organization. The appropriateness of any given business or funding model may depend on a number of issues, including the publisher's size, organizational mission or charter, corporate legal and/or tax status, institutional or corporate affiliation, and other considerations.

There is rarely a single component within the funding model for any Open Access journal. Rather, multiple components typically will combine to sustain an Open Access publishing operation. (The combination of funding components applied becomes "The Model" for that organization.) This "three-legged stool" approach also helps to mitigate the effect of any underperformance by a single business model component. In this section, we present the following components of a business and funding model, including both income generating and subsidy funding components:

SELF-GENERATED INCOME

INPUT FEES

- Author submission/publication charges or article processing fees
- Off-print sales

AFFINITY RELATIONSHIPS

- Advertising
- Sponsorships
- Co-hosting of conferences and exhibits

ALTERNATIVE DISTRIBUTORS

- Convenience-format licenses or distributor format fee

RELATED PRODUCTS AND SERVICES

- Journal publication in off-line media (print or CD-ROM)

- Value-added fee-based services

ELECTRONIC MARKETPLACE

- Contextual E-commerce
- Community Marketplace

INTERNAL AND EXTERNAL SUBSIDIES

INTERNAL SUBSIDIES

- Dues Surcharge

GRANTS AND CONTRIBUTIONS

- Foundation Grants
- Institutional Grants and Subsidies
- Government Grants
- Gifts and Fundraising
- Voluntary Contributors
- In-kind Contributions

PARTNERSHIPS

Again, the manner in which an entity selects, implements, and combines various components will reflect the contexts particular to it: organizational, philosophical, cultural, technical, and disciplinary. There may be no logical limit to the combinations and permutations possible, although in practice some components complement each other better than others.

As an aid for developers and planners, we provide below a taxonomy of Open Access business models. These are dynamic: new models, new variations on models, and new combinations of models occur frequently. Therefore, the taxonomy provided below makes no claims to being either comprehensive or definitive, although a best effort has been made to be thorough.

Two cautions as you review the business/funding models described below:

- Avoid the temptation to dismiss any of the components out of hand as inappropriate to your market universe, unacceptable to your users, or incongruous in your organizational setting. By definition, you are operating in a market environment in which expectations and receptivity to innovation continue to change rapidly. At the same time, your organization's tolerance for risk and willingness to change—as well as your market environment—will also affect which components will prove acceptable in your particular situation. And,
- Avoid the tendency to be overly optimistic in forecasting the financial results of each component within your business model. Be sure that your projections are based on thorough and objective analyses of market factors and potential. And even then, be conservative. One way to accomplish that is to prepare three sets of revenue projections—worst case, mid case, and best case—and create three total scenarios and *pro forma* financials (including expenses) based on each.

BUSINESS MODEL COMPONENTS: SELF-GENERATED INCOME

INPUT FEES

Author submission/publication charges or article processing fees

Article submission or publication charges—charging contributing authors or their proxies fees to subsidize journal processing costs—are among the most frequently discussed supply-side business model components for an Open Access journal.¹² In the print publishing context, author fees may include per-page charges, photograph and other illustration fees, and surcharges for color printing, depending on the publisher. In the digital environment, where document length and color illustration have a minimal effect on costs, author charges tend to be flat-rate fees reflecting the article processing costs.¹³ Some publishers levy such charges on all articles submitted, while others apply them only to articles accepted for publication. Both rejected and accepted articles incur costs (some publishers assert that rejected articles actually cost more to process than accepted ones), and charging article submission fees for all submissions at the outset may allay the suspicions of vanity publishing that sometimes attend such author charges.

A publisher's determination of such fees will reflect a combination of the publisher's pre-press processing costs, the publisher's policies as to which submissions will incur a charge, the number (scale) of submissions, and the extent to which the author charges

¹² While approximately 10% of Open Access journals levy author publication charges, one publisher (BioMed Central) accounts for the majority of such journals.

¹³ BioMed Central and the Molecular Diversity Preservation International foundation (MDPI), for example, assess a fee of \$500 per article, with allowances for individual authors not affiliated with an institution capable of covering the fee. The Public Library of Science has announced plans to charge a \$1,500 per article publication fee.

offset actual expenses (in some instances, the author charge may be intended to completely cover the cost of processing; in others, the charge may only partially defray costs). The latter will depend both on the publisher's cost structure (and hence the level of the fee) and perhaps on the receptivity to such fees in the journal's field. Figure B below provides a simple illustration of how an author fee might be computed for either all submissions or accepted articles, assuming that the fee covers all processing costs. Obviously, were the fee applied in combination with one of the other funding components below, the article charges would decrease accordingly.

Figure B: Sample Author Fee Projection

Sample Author Fee Projection	
Issues Per Volume	4
Articles Per Issue	6
Articles Per Volume	24
Articles Submitted	120
Acceptance Rate	20%
Editorial Processing*	\$90,000
Proportion of Cost Defrayed	100%
Cost Per Submission	\$750
Cost Per Published Article	\$3,750

*In US dollars.

As the hypothetical example in Figure B suggests, if the journal charged a processing fee for every article submitted, and if that fee were intended to offset the entire editorial expense of the journal, then the fee would need to be set at \$750 per submission. On the other hand, were the journal to charge an article processing charge solely for accepted articles, the fee would need to be \$3,750 to cover all editorial costs (including costs incurred by rejected submissions). Depending on the scholarly or scientific discipline of the journal (and receptivity to article processing fees and the availability of research funds to support such fees), such fee levels would frequently prove too steep to be feasible. However, as noted, these fees can be lowered by using them in conjunction with other funding mechanisms.

Many publishers using or contemplating using input fees assume that the author's host institution or research funding agency will subsidize these charges, and some publishers make allowances for special situations (for example, individuals without a host institution or from less developed countries), assessing lower fees or waiving fees altogether when no institutional subsidy exists. These policies must be considered when you calculate article processing fees.

While page charges currently account for a relatively small proportion of revenue across scholarly publishing overall, they represent significant revenue streams for some scientific society publishers.¹⁴ For journals in disciplines for which they have been a long-standing practice, page charges provide a logical model to extend to digital Open Access publishing. However, authors in disciplines without an established page-charge tradition may resist the practice. Disciplines without such practices include fields (including the

¹⁴ One estimate places the overall contribution of page charges to be well under 10% of overall revenue, though the figure has been closer to a third of revenue for some publishers. See Carol Tenopir and Donald W. King. (2000) *Towards Electronic Journals: Realities for Scientists, Librarians and Publishers*. (Washington, DC: SLA Publishing), pp. 310-312.

humanities and social sciences) where research is relatively inexpensive and research grants too small to cover an article submission charge. Further, the practice runs counter to the tradition in some countries where research scientists may receive direct or indirect government remuneration for publishing research. While this perception might change with the expansion of Open Access publishing, publishers should be aware of their authors' attitudes towards the practice in order to better anticipate and overcome any objections. Relying on author proxies—universities and research sponsors, for example—might further allay author objections.

Article processing fees are based on the premise that authors and their host institutions are the most direct beneficiaries of publication in a scholarly journal. Also, in contrast to the current subscription-based models, the funds available to support publication scale with the amount of material seeking publication. Research has found that the demand for academic journals (at least in the US and UK markets) comes primarily from the authors themselves, motivated by the role publication in prestigious journals plays in professional advancement.¹⁵ Article processing charges thus distribute a journal's publication costs across those individuals and institutions that benefit most directly from a paper's publication. While this is often cited as one of the advantages of such charges, it is also—as noted above—one of the principal objections to such charges when they are paid by the individual author seeking professional advancement. When positioned as being paid by academic institutions, funding agencies, and other sponsors, author charges might prove less objectionable when transplanted to new disciplines.¹⁶ Some society publishers have grant programs that subsidize article processing fees for qualifying submissions. Such grants typically apply to society members who lack other institutional funding to pay the article charges.¹⁷ One Open Access publisher has instituted a model that packages article processing charges in an institutional subscription: a fixed fee covers all manuscript submissions from researchers at the subscribing institution.¹⁸

Off-print sales

Another variation on article processing charges makes payment of the article fee—and the availability of the article via Open Access—subject to the author's discretion. While this model could not be relied on to support a fully Open Access journal, it might provide a transitional strategy for disciplines without an existing article fee tradition. At least one society has experimented with a form of article processing charge that provides authors

¹⁵ See Roger Noll and W. Edward Steinmueller. "An Economic Analysis of Scientific Journal Prices: Preliminary Results." *Serials Review*. Vol. 18 (1992); "What Authors Want" (Worthing, West Sussex: Association of Learned and Professional Society Publishers, 1999); and "Authors and Electronic Publishing" (Worthing, West Sussex: Association of Learned and Professional Society Publishers, 2002).

¹⁶ A partial list of government agencies and foundations that explicitly allow their research grant funds to be used for publication charges is provided by BioMed Central (see <http://www.biomedcentral.com/info/authors/apcfaq>).

¹⁷ For one example, see <http://www.entsoc.org/pubs/Publication%20Policies.htm>.

¹⁸ See, for example, <http://www.biomedcentral.com/info/instmembership.asp>. Indeed, all 180 universities in the United Kingdom are now "institutional members" of BioMed Central. This membership was funded by the Joint Information Systems Committee (JISC). It should be noted that packaging article processing charges in an institutional subscription will often burden the institution's library with costs customarily incurred elsewhere (for example, faculty departments).

with electronic PDF “reprints” as an incentive to pay an article processing fee.¹⁹ The surplus income generated from the article fees is sufficient to fund the posting of all the journal’s articles digitally, including those for non-participating authors. Under one model, the posting of the PDFs for non-participating authors is delayed for several months to provide authors with an incentive to participate. Again, as Open Access principles require immediate access to research, this embargo mechanism to encourage author participation should not be applied in a pure Open Access model. Still, it might serve as an interim practice to help sustain a new journal until income streams from other components begin contributing.

Depending on the field in which they publish, some publishers realize substantial revenue from reprint sales to corporate buyers. Rather than assuming that such revenues will be unattainable under an Open Access model, publishers that would otherwise depend upon these revenues may elect to position reprint fees as corporate donations to support Open Access. Corporate purchasers, already accustomed to paying the fees, have shown some willingness to continue the practice, especially where publisher provision of the reprints serves as a convenience purchase.

AFFINITY RELATIONSHIPS

Advertising

Web-based advertising extends the traditional broadcast media model. In the case of an Open Access online journal, the web site provides free access to valuable content in combination with advertising messages, usually in the form of banner ads and sometimes facilitating links to the advertisers’ sites.²⁰ The publisher sells the ad capacity (typically on its own, or given sufficient demand, through a broker) to advertisers who wish to target the audience served by the web site.

Advertising works in instances where the web site either draws a substantial volume of visitors, allowing the advertiser to reach a large audience, or where the site’s audience is highly specialized, providing an efficient marketing channel for targeting that particular audience. While scholarly journal web sites seldom attract large numbers of visitors, they typically reach specialized audiences. Where publishers can identify potential advertisers seeking to reach an online journal’s users, an advertising program deserves consideration. Some scholarly print journals have sold advertising for years; there is no logical reason why such ads would not translate to the online version of the journal. This point can also be made to those who might object to web advertising for aesthetic or philosophical reasons.

There are several methodologies for setting web advertising rates. One method is based on the volume of ad “impressions”—that is, the number of site visitors who view web pages displaying the ads. Impressions are typically measured and sold as CPMs, or the cost

¹⁹ Thomas J. Walker describes the experiences of the Florida Entomological Society taking its *Florida Entomologist* electronic. See Thomas J. Walker “Free Internet Access to Traditional Journals.” *American Scientist*. Vol. 86, No. 5 (1998) and “Two Societies Show How to Profit By Providing Free Access.” *Learned Publishing*. Vol. 15, No. 4 (2002), pp. 279-284.

²⁰ BioMed Central offers a full range of advertising media in the scholarly journal context (see <http://www.biomedcentral.com/info/advertising.asp>). Priory Lodge Education uses voluntary user registration information to increase its appeal to sponsors and advertisers (see <http://www.pol-it.org/serv.htm>).

per each thousand visitors.²¹ CPM rates are out of favor with some advertisers, who find it difficult to quantify the financial return of such passive advertising. However, they can still prove useful to small market advertisers targeting highly specialized audiences. A second common ad rate uses a pay-for-performance model (sometimes referred to as a CPA or cost-per-(customer) acquisition model). Using a CPA model, the advertiser pays the publisher for each visitor that actually responds to the banner ad in some manner, typically by “clicking-through” the banner and responding to an offer (often by making a purchase or by registering for more product information, etc.). Advertisers often prefer pay-for-performance models as they can predict their advertising return on investment (ROI) and better manage their advertising spending. From the publisher’s perspective, however, CPM rates better accommodate the particular use patterns of academic researchers, who—engaged in the research task at hand—are less likely to interact with ads. Further, CPM rate-based ad sales typically offer more predictability of income. From a practical perspective, for existing journals with established print advertising programs, both the journal’s and the advertisers’ rate expectations will often be indexed to existing print advertising rates.

Web-based advertising raises a number of issues that Open Access publishers should bear in mind:

- *User receptivity:* While few users of any service in any medium will profess that they actually *like* advertising, mounting evidence suggests that academic users have few objections to web advertising that is relevant to their interests (for example, lab equipment or scholarly monographs) and graphically unobtrusive. Indeed, readers might well be expected to appreciate advertising that supports an Open Access publication.
- *Dual media ad packages:* If you publish your journal in both print and electronic formats, you might consider selling ad packages for both formats. This can be as simple as a bundled dual media price that entices advertisers to try web-based ads for the first time.
- *Ad sales capacity:* Advertising needs to be sold and traffic managed, which requires the aptitude, time, and effort to do so. If you have little or no staff support, an advertising program for your journal might not be a cost-effective component of the business model unless you can leverage the effort with an existing ad sales program or out-source most of the effort to a broker (who will typically be paid only for results, on a commission basis). However, if you have sufficient staff resources and/or can leverage advertising with a print edition of the journal—and/or other affiliated journals, especially ones that already contain advertising—a web ad program can contribute to your operating income, while delivering information relevant to your users.
- *Site traffic reporting:* If advertising is sold based on CPMs, the advertiser will require accurate reports of your site’s traffic. While third-party Internet audience measurement services exist that monitor this type of traffic, they are too expensive for most publishers. In a small market, you should be able to

²¹ The price paid in a CPM arrangement is calculated by multiplying the CPM rate by the number of CPM units. For example, 100,000 impressions at \$25 CPM equals a \$2,500 total price. The amount paid per impression is calculated by dividing the CPM by 1,000. For example, a \$25 CPM equals \$0.025 per impression.

reach an accommodation with your advertisers that allows you to supply data from your own server logs to validate your traffic figures.

Unlike broadcast advertising, where ad revenue represents the major or sole source of revenue for the broadcaster, for Open Access journal publishers advertising will likely contribute a relatively modest income stream—perhaps 5% to 20% of total revenue. Still, some Open Access publishers will find advertising to be worth the effort, whether they previously operated an advertising program or not.

When marketing to advertisers, you will want to emphasize the strengths of your journal and the demographics it reaches. For example, you will want to provide the following information, together with advertising rates, to formulate a “rate card” and “media kit” (a resource to help prospective ad buyers evaluate advertising opportunities):²²

- **Readership/Circulation/Impressions:** Indicate the approximate number of registered subscribers (in this case, those who have registered to receive the Open Access journal) and/or the number of page impressions. Of course, any registration system should conform to your organization’s user privacy and disclosure policy.²³ Whether you present one or both of these figures will depend on a variety of factors, including how long the journal has been available online (for example, until the journal has been online long enough to build up traffic, you may choose to emphasize the projected online readership based on your print subscription base).
- **Cost effectiveness:** If a significant proportion of your journal’s audience represents a particular demographic in addition to the specific discipline the journal represents (for example, researchers in a particular country or geographic region, researchers in the private sector, etc.) you may wish to point out that advertising placements in your journal lower effective costs for advertisers who want to reach that audience.
- **Quality of readership:** Indicate the profile of the readers of your journal, both online and offline (when such data are available). These assertions will be strengthened when they are supported by detailed user registration information.
- **Other leading advertisers:** Indicating prominent past advertisers in your journal may generate additional interest by building the credibility of your journal as an effective media outlet and by enticing companies to respond to their competitors’ advertising.

²² Media kits typically contain information about rates, ad sizes and formats, audience profiles and targeting options (where applicable), and contact information, along with any other information that will help advertising buyers make informed decisions and encourage them to advertise in your journal.

²³ For more information on privacy policies and disclosure (or non-disclosure), see Appendix III-C.

Some journals may be unwilling to accept certain types of advertising which may be viewed as distasteful or not directly pertinent to the audience. While most journals would be unlikely media targets for such types of advertising, it is best to establish an explicit policy beforehand identifying any restrictions. Bear in mind that your journal may be viewed by undergraduate students, and that (at least in the US) academic institutions often discourage (or even prohibit) the display of advertising for student credit cards and similar credit products.

Sponsorships

The corporate sponsorship component relies on one or more corporate sponsors to subsidize some or all of an Open Access journal's operating expenses in exchange for recognition on the web site and, sometimes, in other forms of public communication. While similar in appearance to online advertising—the sponsorship recognition often takes the form of a banner graphic or display of a logo and brief message—sponsorships differ from advertising in several significant respects:

- *Greater funding potential:* Sponsoring a journal delivers greater marketing value than does advertising, as the sponsor benefits from the reputation, values, and goodwill of the Open Access journal. Thus, a journal can realize more revenue via a corporate sponsorship than the market value of a commensurate amount of advertising. While difficult to quantify, this concept is well understood by experienced corporate sponsors. (By way of illustration, the 15-second on-air donor recognition that an auto maker receives for sponsoring a Public Broadcasting Service (PBS) production is worth more to the sponsor than a 15-second commercial on a broadcast channel.) For an Open Access journal, this may translate into the potential for securing sponsorships that contribute significantly to the journal's operating income.²⁴
- *Less labor intensive:* Once the guidelines have been established, maintaining corporate sponsorships should be less resource intensive than selling advertising. First, a journal would often only have one or two corporate sponsors; more would dilute the sponsorship's appeal to potential funders. Second, the length of a sponsorship commitment is typically longer than that for an advertising contract. On the other hand, compared to advertising, sponsorships increase a publisher's relative dependence on any given sponsor.
- *Existing prospects:* You may already have an established group of potential sponsors for your transforming your publication to Open Access. Within a learned society context, for example, this might be corporate members, conference sponsors, and the like. Similarly, within a university context, supporters amongst corporate foundations might want to sponsor the Open Access initiative. Clearly, existing affinity relationships should be explored for potential expansion to journal and site sponsorships (within the parameters of the sponsorship guidelines outlined below). In the university setting, the Development Office can often provide guidance on these relationships.
- *User receptivity:* As noted above, relevant advertising messages seldom distress journal users. Still less sponsorships.

²⁴ We thank Cathy Hogan, Senior Director of Program Underwriting Policy at the Public Broadcasting Service (PBS), for this information.

With the exception of advertising, corporate sponsorships should combine well with many of the other business model components catalogued here.²⁵ For example, a corporate sponsor might fund a program that provides grants to authors who lack institutional funding to cover article processing fees. Or a sponsor might underwrite a particular section or feature of a journal. Whatever the sponsorship format, existing journals with strong brand and market positions should prove particularly appealing to potential sponsors.

A journal that entertains a sponsorship program will need to develop an “underwriting” or “sponsored publishing” policy to protect the journal’s integrity and quality. These guidelines establish the general principles for determining the acceptability of sponsorship funders, and are intended to:

- Ensure that editorial control remains entirely with the journal;
- Avoid funding arrangements that might create the perception that editorial content has been inappropriately influenced by the funding sponsors; and
- Protect and preserve the noncommercial character of a nonprofit journal.

To determine the acceptability of funding, a journal will want to apply several “tests” to each proposed funding arrangement:

- **Editorial Control Test:** Editorial control must remain with the society or journal editorial board. Sponsors/funders cannot be allowed to exercise any editorial control. Sponsorship agreements must clearly and explicitly articulate this point.
- **Perception Test:** Perhaps the most difficult issue is the possible public perception of editorial involvement and the direct and immediate interest of the funder in the editorial content. Therefore, the journal must guard against the public perception that editorial control might have been exercised by any journal sponsor. This perception will sometimes increase the more direct the connection between the sponsor’s business interests and the subject matter of the journal. Additionally, the perceived *character* of the sponsor’s interests is important. In order to help guard against the perception of editorial influence:
 - Funding should be sought for the journal as a whole and on an on-going basis, rather than for individual articles or issues. This will help avoid situations where a funder seeks—or appears to seek—to fund only those issues of a journal in which it has a particular interest.
 - In some cases, the joining of a problematic funder with one or more neutral funders may make the problematic funder acceptable, as any perception that it exercised content control would be mitigated by the presence of other funders.
 - **Commercialism Test:** Sometimes there will be less concern that the funding might bring about actual sponsor influence, than that the reputation of the journal will suffer from a funding arrangement that is so self-serving that a reasonable audience could conclude that the journal is publishing largely to promote the sponsor’s products, services, or other business interests.

²⁵ Sponsors may demand exclusivity or near-exclusivity, which may be incompatible with a simultaneous advertising program.

Once a journal approves a sponsor funding arrangement, it will want to ensure that the appearance and overall effect of the credit given to the sponsor is in keeping with the editorial integrity and noncommercial character of the journal. To this end, the journal may want to establish some simple rules governing the content and appearance of the sponsorship credit (whether it appears online, in print, or both). Such rules could include:

- **Nature of acknowledgement/credit:** The nature of a sponsor acknowledgement may vary depending on the policies of the journal and the expectations of the sponsor. In some cases, the sponsor acknowledgement may be limited to a textual credit (e.g., Funding for the *ABC Journal* provided by Acme Corporation). In others, the acknowledgement will take the form of a banner graphic (adhering to guidelines the journal has established). Whether textual or graphical, the credit may be linked to a page providing a fuller explanation of the sponsorship terms. This can be especially useful in instances where a journal accepts multiple funding sponsors. In this way, the journal can acknowledge multiple sponsors without cluttering the journal's appearance. You may wish to use the words "in part" to describe instances where the sponsor provides partial funding for the journal's operation (e.g., Open Access to this journal is made possible in part by Acme Corporation).
- **Sponsor Name and/or Logo:** All funders should be identified by their name and/or logo. If the logo does not adequately disclose the sponsor's identity, then the sponsor's name should be stated. In some instances, the name of a corporation and its brand name are the same. In other cases, however, brand names are neither the corporation's name nor the name of a division or subsidiary of the parent company. In such cases, the brand name could be used, but the accountable corporate entity should be fully and clearly disclosed in the sponsorship credit. The goal is to prevent turning the sponsorship credit into a product pitch, while clearly disclosing the funding source.
- **Use of service marks and slogans:** Slogans and corporate positioning statements may be acceptable to the journal as long as they do not include an explicit or specific:
 - Call to action (e.g., "Buy . . .").
 - Superlative description or qualitative claim about the company or its products or services or direct comparison with other companies' products or services.
 - Price or value information or inducements to buy.
 - Endorsement (e.g., "recommended by 4 out of 5 scientists . . .").

Of course, the sponsor could choose to include a message in support of the journal or its availability via Open Access (e.g., *ABC Journal* is sponsored in part by a grant from Acme Corporation, which supports Open Access to [name of discipline] research."

- **Identification of products/services and product lines:** To identify a funder, a specific product or brand name may be identified in the sponsor acknowledgement graphic (e.g., Sponsored by Acme Computer, makers of the Z-11 notebook and other computers for academic and business use).

- Use of web addresses and toll-free numbers: The journal may choose to allow sponsors to include either a web address or telephone number. Allowing only one would minimize screen clutter. The web address or telephone number should not spell out a call to action (e.g., www.buyacme.com or 1-800-CALL NOW).
- In-kind contributions might, in some instances, be substantial enough to merit explicit online recognition. In such cases, the journal may elect to recognize such contributions in a manner that will credit the provider(s) without competing or conflicting with the sponsorship credit discussed here.

A journal will need to adapt the guidelines proposed above to its particular circumstances and requirements. Again, such guidelines are intended to protect both the journal's editorial independence and perception of the journal's integrity and quality.

Co-hosting of conferences and exhibits

Rarely will a journal by itself possess the strength and resources to independently promote and host a conference profitably. However, for an Open Access journal published outside of a learned society, one might find that the co-hosting of a conference with a society will benefit both hosts strategically and economically. Unfortunately, it is the relatively rare event that generates a substantial net profit. For a learned society to consider allowing an external publisher to co-host, the publisher must be able to demonstrate a clear potential to improve the society's attendance, visibility, and revenue. Among the benefits of co-hosting with the journal that could be presented are the journal's value as a venue for conference publicity and promotion, its prestige, its access to a cadre of leading scholars and scientists, and a readership that may extend well beyond the society's own target communities for conference attendance. Also, for a conference that includes exhibits, the journal may present influential access to prospective exhibitors through its affinity relationships with advertisers and/or sponsors.

ALTERNATIVE DISTRIBUTORS

Convenience-format licenses or distributor format fee

Open access publishers that control specialized or significant bodies of content may be able to generate additional revenue by providing convenience data files to third-party information aggregators and distributors. For example, publishers of law reviews or other journals in legal fields might license the content for distribution to law firms and corporate legal offices via LEXIS-NEXIS and/or WestLaw.²⁶ Or, a publisher with multiple journals in a scientific field might provide the data file to a legal information service, which could provide access to its customers for use in patent prior-art searches. Providing the data in a single file, as is or in a distributor-determined standard format, would deliver real convenience value to the aggregator. For their part, the aggregator's customers would perceive value in having convenient access to relevant content they would otherwise have to discover on their own (a convenience for which they are willing to pay the aggregator, even when the same content is accessible free via Open Access). With the right content and the right aggregator, a journal publisher could charge significant convenience fees. The potential fee would depend on the content's appeal to the distributor's customers and may be either a flat-rate

²⁶ *Michigan Telecommunications and Technology Law Review*, for example, has licensed its content to both LEXIS-NEXIS and WestLaw (see <http://www.mttlr.org>).

or variable royalty (based on some agreed-to measurement of usage), or a combination of both.

While many small publishers would not control sufficient content to justify this model, they could collaborate with other publishers of similar content to aggregate such files and offer them as a stronger group to alternative distributors.

RELATED PRODUCTS AND SERVICES

Journal publication in off-line media (print or CD-ROM)

Publishing a fee-based print edition (or, if there is demand, a CD-ROM edition, such as an annual archival volume) that complements your online Open Access journal provides a way to serve the needs—both actual (convenience, archiving, etc.) and perceived (prestige)—of those individual and institutional users that require print.²⁷ This may also satisfy the desires of authors who see print as a validation of their work. You can provide such a complementary print edition in a variety of ways, including:

- *A cumulative print edition* that appears at the end of the volume year:

To address the needs of individual and institutional users that value print for archival and convenience (ready reference) purposes, you can offer a print version that aggregates the papers published previously in digital format. How closely the print edition mirrors the online version will depend on the types of digital content your journal publishes; large data sets, audio and video, and three-dimensional modeling would necessarily remain exclusively digital. Although the total pages published during the year may prove less predictable with an electronic format, a cumulative annual edition allows you to determine beforehand how many pages you will be printing. While the page counts between volumes might fluctuate significantly, implementing value-based pricing and a standing order option would make income projections more reliable.

Some publishers will want to price their print editions on a cost-recovery basis, covering the direct and indirect expenses relating to print production and fulfillment.²⁸ Others will want to generate a surplus (income after direct expenses) with their print version, in order to partially offset the journal's overall operating costs. Unless utilizing print-on-demand technology, the cost recovery basis will depend, in either event, on scale, so it is important to accurately project the demand for such print units when establishing the per unit price.

- *A simultaneous print edition* that may provide additional, non-research content not available through the online Open Access version:

Publishing a print edition simultaneous with the online version allows you to satisfy any strong market demand for a traditional print journal and possibly to provide value-added content to the print version (as well as a potential

²⁷ A number of journals that offer print subscriptions appear to fund the online availability through surplus income from the print sales (see, for example, *Acta Mathematica Universitatis Comenianae*; <http://pc2.iam.fmph.uniba.sk/amuc/>). However, the extent of this practice is unclear, as few journals explicitly state the relationship explicitly.

²⁸ For an example of this model, see *Geometry and Topology Publications*; see <http://www.maths.warwick.ac.uk/qt/gtp-subscription.html>.

additional vehicle for selling advertising), thus generating incremental revenue. Additional content could include correspondence, editorials, job postings, event calendars, and other information of value to a particular research community. In practice, this will often translate into continuing the print journal while making only the research content available online via Open Access. In these cases, publishers will need to maintain the value of the print in order to minimize erosion of existing print subscription revenue.

Value-added fee-based services

There are a number of value-added services that publishers can provide to increase the usability and appeal of a journal's research content. Publishers often include such features to add value to their online journal services. Typically, services such as those described below will need to be offered as a package in order to justify even a modest fee. Even then, it may be difficult for publishers to justify offering such services on a straight fee basis. However, the demographic information that can be gathered as part of the registration process for some of the services below can be used *on an aggregated basis* to support a journal's ad rates or sponsorship levels.²⁹

Examples of possible value-added services include:

- *Alert services:* Automated alert services allow users to establish profiles of research interests (based, for example, on the journal's article indexing scheme) and to receive e-mail notification when the journal publishes an article in their specified area(s) of interest. Such alert services are particularly useful for electronic journals that publish articles as they become available. Additionally, they allow researchers in allied fields, but from outside the journal's user community proper, to passively track research.
- *Site customization:* Besides custom alerts, journals can provide additional user-defined settings that allow a user to customize the journal interface or other aspects of their interaction with the journal.³⁰ Customization allows the user to configure the journal or site interface and create a profile manually, adding and removing elements in the profile. The control of the look and/or content is explicit and under the direct control of the user.³¹ This type of user customization can feature other research support tools, including saved searches.

Producing various versions of digital information services—for example, providing one or more of the value-added features described above—each with their own targeted market segments, perceived value, and willingness to purchase, is a well established method of maximizing the revenue generated by any given information asset or content

²⁹ If you choose to gather such demographic information, be explicit in your privacy policy that you are not using any of the data on an individual basis and that you are not revealing email addresses to third-parties. Even with these caveats, academic users tend to be wary of providing such information to any but the most trusted sources.

³⁰ A distinction is sometimes made between customization and personalization. While customization is user-driven, personalization involves an automated process of gathering user information during the user's interaction with a web site; this information is then used to deliver appropriate content and services tailored to the user's needs. The services described here refer to user-specified customization.

³¹ For an example of interface customization in an academic library setting, see North Carolina State University's *MyLibrary* initiative (see <http://my.lib.ncsu.edu/>).

set.³² Such versioning requires an ability to manage the access to the various service levels. In their simplest form, Open Access e-journals would not require such potentially expensive access management and control systems. In fact, in many instances, the costs incurred by implementing such a system, in order to facilitate purchased service offerings, would consume most or all of the incremental income that such offerings might generate. The cost-to-benefits ratio should be considered carefully.

ELECTRONIC MARKETPLACE

Contextual E-commerce

Professional societies or other Open Access journal publishers with sufficient goods and services to sell directly—their own and/or those of other parties—could launch an electronic commerce operation. E-commerce, of course, refers to “electronic trading” via the Internet, rather than over the phone, or by mail order, or at a physical retail outlet. Online ordering using a credit card via a secure system and server enables the customer to purchase the goods, which are then physically shipped to the customer, or which, when a digital publication is the product, can be made immediately available to the purchaser.³³ The e-commerce in which a journal might engage to generate income may be substantial, such as an online bookstore, or relatively slight, such as tee shirts and coffee mugs.³⁴

The journal’s e-commerce operation could sell its own goods and services or it could sell the goods and services of others. For example, a society publisher could offer information products, extended learning programs (for example, continuing education, professional certification, etc.), society-sponsored insurance, and the like. Additionally, an online journal’s web site may prove an excellent outlet for monographs published by university presses seeking new marketing channels, or by a society looking to sell conference registrations to a broader audience. One of the critical success drivers for this type of contextual e-commerce will be the relevance of the goods and services offered to the journal’s audience.

There need be little financial risk inherent in a properly-designed e-commerce program, although it can be time-consuming. Physical goods need not be inventoried; rather, they can be drop-shipped to customers as ordered, particularly for products for which the site acts as intermediary but not the actual producer. The costs of mounting an e-commerce capability are relatively low and mostly variable; that is, after generally modest fixed costs, incremental expenses will increase only in proportion to sales. Margins can be attractive if the automation is maximized and staff time for order processing and fulfillment is minimized. While supporting e-commerce increases the complexity of your site’s operation, the technical infrastructure (and even the secure processing of credit card payments) can be outsourced. Many full-service vendors can perform all or part of the e-commerce solution, often at competitive rates.

³² Most versioning based on online content currency, update frequency, and depth is anathema to Open Access principles. The versioning discussed here refers only to value-added service features, such as alerts and other customization.

³³ For a practical guide to implementing an e-commerce component (from a US perspective), see Gary M. Grobman. *The Nonprofit Organization’s Guide to E-Commerce*. (Harrisburg, Pennsylvania: White Hat Communications), 2001.

³⁴ For an example of the former, see Priory Lodge Education’s bookstore; <http://www.priory.com/psybksph.htm>); and for an example of the latter, see <http://nsr.mij.mrs.org/info/stuff.html>).

Whether an e-commerce program can be a viable component of your journal's business model will depend on a number of key factors involving the range of products and services that could be offered profitably and the willingness of the organization to undertake obligations and potential liabilities as a purveyor of goods and services (some or all of which may be produced by others). Possibly, just the idea of engaging in e-commerce will foster controversy: some key participants and supporters of the Open Access journal may view such a program as being too commercial or off-mission. Selecting products and services with a close and qualified relationship to the interests of the journal's readers, and proposing that e-commerce be conducted on an experimental basis for a time, might address these objections. It is difficult to predict the economic impact of e-commerce as a component of the journal's business model. If you are incorporating this into your plans, it would be prudent to be conservative in projecting both income and expenses.

Community Marketplace

There are several business models in which a journal can leverage the natural target audience formed by its research community. These models—including advertising—if handled correctly, can provide useful information to the journals users. The viability of such web communities depends on online user loyalty—that is, the degree of user interaction with the site as opposed to sheer traffic volume. Web sites centered around an Open Access journal, where online users may be contributors as well as readers, lend themselves naturally to a community marketplace, particularly when the journal's user base is large.

In one scenario, the publisher provides a transaction space (sometimes referred to as a "mall") where site users can interact with relevant service and product providers. The third-party products and services included in the community marketplace should reflect the needs of the journal's users. In some instances, one might limit participation to information providers—of both print and online services—allowing users of the site to discover, review, and even purchase relevant monographs, course packs, and other information products (as part of an e-commerce program, as discussed above). In other cases, one might allow participation by a variety of providers of goods and services pertinent to site users' interests, such as equipment for a research lab or field work, or specialized application programs for data analysis.

Often, the third-party participants in the interactive community will be the same as, or similar to, advertisers (if the journal has an advertising program). However, unlike web advertising programs (see above), which may link the user to a third-party site presenting marketing information and sales offers, this transactional space facilitates the direct interaction of site users with vendors and others on the journal's site itself. This market space allows site users to find relevant product information, conduct product research, make inquiries, and even initiate purchases. Income for the journal's publisher as community host would be derived by charges to the third-party participants. This may take the form of fees based on traffic or transactions, sales commissions (a percentage of any actual sale), flat rates for a location in the community, or as some combination of these. Well-chosen third-party participants could increase the journal site's appeal to users, as well as the amount of time users spend at the site (a key metric for indicating the site's value to users).

When operated in combination with an advertising program, a journal could use the community marketplace as a means to increase site traffic volume and the amount of time users spend at the site. This, in turn, increases the site's appeal to advertisers and boosts the advertising rates that can be charged.

If not carefully designed and planned, the e-commerce models described above can entail relatively high administrative and technical costs. Further, they can represent a significant strategic shift for many publishers, and lead a publisher beyond its core competencies. On the other hand, partnering with other publishers with similar markets would effectively lower each publisher's costs and risks, while increasing the audience for such activities.

BUSINESS MODEL COMPONENTS: INTERNAL AND EXTERNAL SUBSIDIES

Besides the cost recovery models described above, in some instances publishers will find it necessary to rely on either external or internal subsidies. Typically, though not invariably, external subsidies may help a publisher offset one-time costs associated with launching a new Open Access journal, rather than support ongoing operations. Therefore, most Open Access journals will also need to implement some form of self-generating income model to support ongoing operations.

Some may contend that reliance on external or internal subsidies, whether direct or indirect, cash or in-kind, may obscure the true costs of publishing and allow some journals to avoid challenges faced by others to which such subsidies are not available. In this view, proposing subsidies as a viable business component encourages journals to self-delusion and leads them, ultimately, to failure.

It is, of course, true that publishers should not rely on uncertain philanthropic subsidies to prop up otherwise unsupportable business models. However, for some new journals, subsidies can provide a valuable means to fund Open Access initiatives in the early stages, if not also longer-term. For others, in-kind contributions can help in the same ways. All such subsidies should be formally recognized, fully accounted for, and carefully managed to ensure their continuity. However, the fact that not all publishers can benefit from such subsidies should not preclude their application by those that can. Nor should a business plan that prudently incorporates subsidies be dismissed as lacking reality.

INTERNAL SUBSIDIES

Dues Surcharge

While external sources of subsidies offer the greatest potential for substantial developmental (and, rarely, operational) funding, subsidy sources can also be tapped from within a publishing organization. Such sources would most frequently be available in nonprofit and membership organizations.

Increasing member dues to help subsidize Open Access publishing is, of course, a possibility only for membership organizations. Although potentially controversial—for some societies, any discussion of a dues increase will generate dissent—some membership organizations may give more than a passing thought to this possibility.

A dues surcharge—a dues increase that would make member dues account for a larger proportion of total publication costs—would rest on the logic that an organization's members are those most likely to benefit from the publication program. Many learned societies, in particular, began as voluntary associations to support publishing and related research-related activities. These publishing programs were originally intended to serve individual members, with supplemental income streams in the form of institutional subscriptions coming later. For many organizations, therefore, extending member support

to subsidize the entire journal may represent a return to the organization's original publishing mission.

A dues surcharge raises membership cancellation and "free rider" issues: that is, members may drop out of an organization and take advantage of Open Access availability. The success of Open Access proposals in membership organizations rests largely on the assumption that society membership delivers other benefits—both tangible (such as conference participation) and intangible (such as desire to support and be associated with a field)—beyond the publication itself. (And, of course, many organizations maintain members without offering any publication.) To help combat this "free rider" behavior, the organization might have to effect collateral policy changes—for example, requiring membership for conference participation, raising various participation fees for non-members, and the like.

Instead of seeking to impose a dues surcharge on all members, one might still accomplish much the same financial result via voluntary member contributions. Members can be asked to accept or reject a proposed amount added to their dues annually for support of the Open Access publishing initiative, a variation on the "Dues Surcharge" model discussed above. Members may be one's best potential sources of contributions. If the society or other organization has institutional and/or corporate members, their representatives may be even more amenable to the proposal.

GRANTS AND CONTRIBUTIONS

Foundation Grants

Grants from foundations and other philanthropic organizations can provide a source of funding to offset one-time costs that may attend the transformation of a subscription-based journal to an Open Access model. Such grants typically support development projects and specify a finite grant amount for a set period of time. Although less common, some foundations will also fund ongoing journal operating costs.³⁵

Possible grant sources include:

- *Private foundations:* Private foundations are nonprofit, non-governmental organizations with an endowment (typically donated from a single source) and grant-giving program managed by trustees or directors. Such foundations are established to aid educational, social, religious, or other charitable activities. Obviously, the most important criterion is that a foundation has a philanthropic mission that supports scholarly communications initiatives in the same subject area as your journal.
- *Corporate funders:* Corporate funding might derive from corporate foundations or from corporate giving programs. A corporate foundation is a private, company-sponsored foundation that obtains its assets from a for-profit enterprise. While a corporate foundation is an independent entity with its own endowment and organization, it may maintain close ties with the company that created it. Corporate giving programs are grant-making programs administered from within a for-profit business. Some companies make charitable contributions through both types of programs. When dealing with corporate foundations or corporate giving programs, prudence dictates that you develop

³⁵ Based on an analysis of the *Directory of Open Access Journals*, maintained by Lund University Libraries (see: <http://www.doaj.org/>), almost 10% of Open Access journals are supported by foundations.

and apply underwriting policies (such as those described above for sponsorships) to ensure that you avoid any real or perceived conflict of interest between your journal's editorial integrity and the granting corporation.

Two other types of grant-making organizations—public charities (non-governmental charitable organizations that support grants programs) and community foundations (charitable organizations that serve a specific community or region)—often have philanthropic missions that support relief and other special programs, and would not typically provide sources for journal development funds. A variety of sources can help you identify private or corporate foundations with subject domain interests similar to your journal's (see Appendix III-B. Web Resources for Journal Publishers).

Identifying an appropriate foundation and applying for a grant can be a time-consuming task, but in many instances it provides a means by which a new journal can fund all or most of its development and early-stage costs. If you are at a university or other nonprofit research institution, your organization's Development Office may already have—or may be in the process of cultivating—relationships with corporate or private foundations that might meet your journal's funding profile. Further, these offices have experience that can help you position your project to appeal to various grant-making organizations. Where applicable, it makes sense to contact and/or coordinate your grant-seeking efforts with this office. Tapping into such a resource might also bring additional skills and visibility to both the grant request and the journal business case itself. Also, remember that such grants will usually only cover start-up; you will need other sources to fund the journal's ongoing operation.

As a rule, foundation grants favor nonprofit initiatives and would be inappropriate for a commercial publisher seeking to establish an Open Access journal. In some instances, this might lead a commercial publisher to establish a nonprofit corporate entity to accommodate an Open Access publishing program.

Institutional Grants and Subsidies

If a journal's publisher, or a key sponsor, is affiliated with an academic or research institution, formal and informal subsidies from the institution can contribute substantially to defraying operating expenses. The Open Access journal may be able to make a case for such an institutional subsidy based on the prestige and increased visibility that the publication brings to the host institution. Funds may be obtained as a grant or subsidy. Often, however, such support will take the form of non-cash in-kind contributions (which are discussed more fully below).

In some instances, a university's library director may be able and willing to allocate some library staff resources to the design and implementation of indexing and metadata tagging schemes, as well as text formatting assistance.³⁶ In any event, the library director will often prove a valuable resource for many of the issues that a initiative must address.

Government Grants

As with foundation grants, discussed above, grants from government funding agencies may—depending on the country in which you are operating—provide a source of funds to develop an online Open Access journal. By and large, however, government

³⁶ In some instances—for example, the *Journal of Insect Science* at the University of Arizona, *Electronic Transactions on Numerical Analysis* at Kent State University, and the *Electronic Green Journal* at the University of Idaho—the library will act as the principal sponsor for the journal.

funding agencies tend to allocate their support to the conduct of project- and subject-specific research, and not its dissemination, which is the focus of an Open Access journal. This may change, and developers and potential publishers should be observant of any realistic opportunities for government grants that may emerge. Universities or researchers engaged in especially large-scale or long-term projects might consider attempting to solicit or negotiate a government grant that extends beyond research support to also encompass dissemination.³⁷

Gifts and Fundraising

The foundation grants described above can provide an efficient means to generate development funds for a new journal. In contrast, relying on smaller gifts from individual donors will increase your organization's fundraising costs (however they might be measured). Whether this is a material concern will depend on the role such fundraising plays in your funding model. While few publishers would want to rely on annual fundraising as a recurring program to cover operating costs, some journals have attracted donations from multiple sources, including individuals, museums, universities, art galleries, corporations, and foundations.³⁸

Where a journal's operating costs are by necessity relatively high, fundraising might make sense as a means to endow a capital fund to fuel ongoing operations.³⁹ An endowment refers to a sum of money where access to the principal is prohibited, but where endowment income is received by an Open Access journal to support its operations. It is difficult to assess the number of Open Access journals actually supported by endowments, as such funding is frequently channeled through a society, institute, or foundation publishing the journal. However, some independent Open Access journals do promote contributions to their endowments.⁴⁰ When soliciting such contributions, it is important to indicate how the endowment is managed, to ensure donor confidence that their contribution will be responsibly managed.

The capital base required to generate sufficient return for this purpose will depend on the journal's expense structure. This would provide for a sustainable income stream and obviate annual fundraising efforts. Fundraising is a particularly challenging and competitive pursuit, but it represents just one way to endow a capital fund. Several of the other programs (corporate sponsorships, for example) discussed here could be applied to the same purpose. In most cases, you should acknowledge that support has been provided by a third-party endowment, or a major donor to an endowment, following the same guidelines as described above under "Sponsorships."

In an academic setting, Open Access scholarly journals—by design, both perpetual and public—provide attractive candidates for named gift opportunities. Potential donors are

³⁷ The Public Access to Science Act was introduced recently by U.S. Representative Martin Sabo, Democrat of Minnesota, to exclude from copyright works resulting from scientific research substantially funded by the United States government, and to make the results of such research available to the public through Open Access. See Warren E. Leary, "Measure Calls for Wider Access to Federally Financed Research," *The New York Times*, June 26, 2003.

³⁸ See, for example, *Nineteenth-Century Art Worldwide* (<http://19thc-artworldwide.org/sponsorship.html>) and *Voices* (<http://www.voices.no/sponsors/sponsor1.html>).

³⁹ In countries where such fundraising traditions do not exist, government or foundation funding of the endowment might be sought.

⁴⁰ See, for example, *Americana: the journal of American popular culture* (http://www.americanpopularculture.com/journal/endowment_fund.htm).

often attracted by the opportunity to be recognized in perpetuity through the activities funded by their endowment, or other long-term support commitment. Journals that appeal to alumnae (for example, law reviews) might find a systematic cultivation of benefactors worthwhile.⁴¹ Similarly, journals that appeal to a specific market, such as law firms, might establish a corporate giving program similar to those used by their host institutions.⁴² Again, journal publishers in an academic environment would do well to work with their university's Development Office in implementing such a program, both to gain from the office's expertise and to coordinate efforts to avoid competing for the same donors.

Voluntary Contributors

The voluntary contributor model is a more public form of fundraising, similar to the model used by not-for-profit public radio and television broadcasting in the United States. In scholarly publishing, this assumes a community of users⁴³ who give support to the journal through voluntary donations. Examples of Open Access journals that solicit donations online include the *Journal of Buddhist Ethics*,⁴⁴ *Other Voices: the (e)journal of Cultural Criticism*,⁴⁵ and *Esoterica: the Journal of Esoteric Studies*.⁴⁶ As these journals demonstrate, soliciting such donations need not be disruptive or disproportionately time-consuming. Appeals for donations will likely prove more successful if the journal makes it as easy as possible for readers to contribute.⁴⁷

In-kind Contributions

An "in-kind" contribution is a non-cash donation of a tangible resource or asset made by a donor to help support your journal's electronic development and/or ongoing operations. In-kind donations potentially relevant to a journal publisher might include: staff time; office space; use of office equipment; supplies; use of computer hardware and software; special services such as web site design and implementation, bookkeeping, or digital production (content formatting and tagging); printing; and professional services such as legal and accounting services. Sometimes, an in-kind contribution to the journal can be realized through a parent organization's willingness not to allocate any administrative and overhead charges.

Most in-kind contributors for scholarly communications are found in institutions, societies, and other organizations with which a publication or project is affiliated, either directly or indirectly. Indeed, well over half of Open Access journals receive some level of in-kind university support and almost a fifth receive some support from one or more learned or professional societies.⁴⁸ A journal publisher within an academic setting may obtain staff support, an office and the use of certain equipment without charge by its university or its

⁴¹ See, for example, the *Indiana Law Journal* (<http://law.indiana.edu/ilj/benefactors.shtml>).

⁴² See, for example, the *Michigan Telecommunications and Technology Law Review* (<http://www.mttlr.org/html/Donors.html>).

⁴³ See the discussion of user communities below under "Community Marketplace."

⁴⁴ See <http://jbe.gold.ac.uk/dana.html>.

⁴⁵ See <http://www.othervoices.org/subscriptions.html>.

⁴⁶ See <http://www.esoteric.msu.edu/Support.htm>.

⁴⁷ *Voices*, for example, allows readers to contribute via major credit cards (see <http://www.voices.no/info/infosub.html>).

⁴⁸ Based on an analysis of the *Directory of Open Access Journals*, maintained by Lund University Libraries (see: <http://www.doaj.org/>).

library. Similarly, work-study help from students can represent a valuable resource, if one sometimes lacking in continuity and consistency.

While most foundation grants are cash contributions, some corporate gifts assume the form of in-kind contributions (for example, a no-charge license to use software which might otherwise represent a considerable expenditure). Significant *ex gratia* discounts on goods and services from commercial vendors, which also help your journal preserve precious cash, also may be considered as in-kind contributions.

Depending on the nature of the in-kind contribution, the donor may retain some degree of control over the donation (for example, if a web services provider or a printer provides some added services at no charge or below market rate). This implies a relationship between your journal and the donor that requires attention and maintenance (for example, keeping the donor informed and satisfied with the relationship).

In-kind contributions deserve attention as a potentially valuable component of a number of business/funding models. Such non-cash contributions, as a percentage of overall corporate giving, appear to be increasing significantly, and are especially prevalent with software and hardware companies.⁴⁹ In addition to the gifts and fundraising model discussed in this section, in-kind contributions may form part of corporate sponsorships, institutional subsidies, partnerships, advertising, and other models.

As noted above, in-kind contributions should be formally recognized, accounted for, and managed to ensure their continuity. Journals must recognize that in-kind subsidies require resources to administer and maintain, just as self-generating funding models do. Ideally, all in-kind arrangements and their terms will be explicitly articulated and agreed to by the journal and the contributing entity. Implicit in-kind arrangements, even of long-standing, must be recognized as financial risks and contingency plans developed (for example, while the current administration of a university supports the journal and authorizes an in-kind contribution, changes in that administration may result in a down-scaling or elimination of the support).

PARTNERSHIPS

The Open Access journal publisher may find it productive, even essential, to establish an arrangement involving resource contributions by two or more organizations with interrelated missions and complementary strengths. Various inter-organizational partnership possibilities exist for the Open Access publisher, who might construct an arrangement and business relationship involving resource contributions to the program by its partners.⁵⁰ A partnership between a learned society and an academic institution, for example, could meld the relevant strengths of each.⁵¹ A society/university partnership can be especially effective because of the shared commitment to improving the scholarly communications process. Typically, the society represents the interests of its scholarly discipline, and may also possess a high degree of expertise in journal editorship and

⁴⁹ See Debra E. Blum. "Corporate Gifts Rose 18% in 1999." *The Chronicle of Philanthropy* e-mail newsletter (January 1, 2001).

⁵⁰ For example, *Palaeontologia Electronica*, published by the Texas A & M University, Department of Oceanography, is sponsored by eight societies related to paleontology (see <http://palaeo-electronica.org/toc.htm>).

⁵¹ See, for example, *Electronic Journal of Probability* (<http://www.math.washington.edu/~ejpecp/>), *The Electronic Journal of Linear Algebra* (<http://www.math.technion.ac.il/iic/ela/>), and the *Journal of Physical Studies* (<http://www.ktf.franko.lviv.ua/JPS/index.html>).

publishing. A university's library (or a consortium of libraries) brings to the enterprise such complementary resources as web dissemination infrastructure and technical know-how, as well as visibility and credibility in the scholarly community and the institutional marketplace.

In some disciplines, a digital Open Access journal might have the option to partner with an online publishing service bureau. Such service bureaus, whether nonprofit or commercial, provide free or low-cost Open Access publishing services in exchange for the opportunity to develop a modest revenue stream from the site traffic the Open Access content generates. Often, these firms combine an article processing fee model with an online advertising model to generate revenue (for more about these models, see below). For example, in the life sciences and medicine, several commercial firms offer online Open Access publishing services, allowing journal editors to focus on editorial and content issues, without investing in a technical or business infrastructure. Currently, such services are limited primarily to scientific fields, but similar options might become available to publishers in the social sciences and humanities. Of course, the financial viability and market position of such partners must be an important consideration in evaluating the attractiveness of any partnership.

In any type of partnership, it is essential that one position and person be designated as the ultimate manager or chief operating officer, and with that designation, act to coordinate and oversee all partners' activities, and to ensure implementation of the plans and policies approved by whatever body and mechanism is established for governance. Contributions to, or investments in, the partnership may involve a combination of cash and non-cash, determined on some mutually agreeable basis. In some instances, such partnerships will increase the potential for a journal's success and spread risks that neither party could afford to accept individually.

II-B. Why a Business Plan is Essential

A proper business plan serves as a map. Use it to establish the points along the route, indicating why each is important and how it can best be reached. The plan builds from mission and values to justification, strategies, tactics, actions, and expected results. This last must establish what constitutes success, and should be measured both quantitatively and qualitatively.

Your plan serves as one of the most important early-stage tools for project-related communications. It is an exercise in documenting the thoroughness and validity of your research and planning. You will use it to obtain advice and criticism, to reach agreement, and to secure participation and support. Once finalized, you will use it as your principal guide to implementation and to measuring success. (Parts of the plan, particularly the financials—budget and projections—will be updated annually, as will tactics and action plans in need of correction or refinement.) Your plan lays the foundation for your Open Access model and initiative, and guides it through product design and implementation (if needed), market launch, and ongoing publishing operations. Comprehensive business and financial planning increases the likelihood of the venture’s success.

KEY PRINCIPLES AND QUESTIONS

The planning process serves many useful purposes, regardless of the model you choose to adopt and the environment in which you will operate. For example:

An effective planning process will ...	By . . .
Generate enthusiasm, build consensus	<ul style="list-style-type: none"> • Focusing the efforts of the core planning and development team. • Allowing key players to sign on and share ownership early in the process.
Size the effort	<ul style="list-style-type: none"> • Serving as a mechanism to determine the scope and magnitude of the project. • Identifying and quantifying the core competencies and resources required for the project.
Assess the situation	<ul style="list-style-type: none"> • Recognizing key opportunities and challenges, possible risks and barriers to overcome, and potential rewards. • Encouraging objective analysis.
Set expectations, define success, garner support	<ul style="list-style-type: none"> • Establishing realistic expectations. • Identifying success criteria and how measured. • Serving as a <i>prospectus</i> to seek and establish or confirm support and participation.

Besides providing a map for implementation and the basis for guiding and tracking progress, business plans may also serve as a prospectus for potential supporters and participants. Each plan writer or team will have a different style and approach. Here are some general suggestions that most will want to follow:

As you prepare your plan...	
Consider the audience	<ul style="list-style-type: none"> • The plan is for your own use, but it is also a principal tool for communication to others, perhaps a diverse group . • Your style should reflect your audience’s shared interests. • Do not get too technical (assume some readers are not as expert as you in the subject). • Present your case in a way that any educated person can understand.
Aim for clarity	<ul style="list-style-type: none"> • Your content must be clear and pertinent to all readers, from scientists and scholars to hard-headed business people.
Be persuasive and reassuring	<ul style="list-style-type: none"> • Not everyone is pre-disposed to Open Access publishing; some may need to be persuaded. • Your text should reflect enthusiasm and optimism, but should avoid overstatement and hyperbole.
Take a multi-year view	<ul style="list-style-type: none"> • A business plan will typically present at least a three-year outlook, with up to five years projected if practical.
Focus on the critical early stage	<ul style="list-style-type: none"> • The greatest emphasis in action planning and milestones should be placed on the first 12 to 24 months. • In some circles, a multi-year plan is considered to be a “strategic plan” and a one-year plan is an “operating plan.” Ideally, <i>Version 1</i> of your Business Plan will be both.
Allow for review and revision	<ul style="list-style-type: none"> • Indicate that the initial plan will be reviewed and updated periodically. Usually, a revised or new version will be created annually in conjunction with the budgeting process.
Achieve balanced content	<ul style="list-style-type: none"> • The document should be all-inclusive for material matters, though kept at a relatively high level. • Do not overlook important considerations, but do not present so much detail as to obscure the key points or challenge your readers’ willingness to examine the entire document.
Be cognizant of the document’s size, depth and structure	<ul style="list-style-type: none"> • Document length and density do not necessarily signal that what you have to communicate is more or less worthy of consideration. Presenting readers with an overlong or poorly-structured document may be counter-productive. • Each chapter should be as long as needed to address its topics adequately, but not so drawn-out as to challenge the reader’s patience, obscure key points that should be seen easily, or make it difficult for developers and managers to actually use the plan as a guide to project execution.
Use illustrations and exhibits	<ul style="list-style-type: none"> • Adding diagrams and tables will improve the appearance of your document and will highlight important data. • Stylistically, many plan writers make extensive use of exhibits and attachments to avoid clutter and complexity in the main body of text.

II-C. Resources for Developing a Business Plan

The creation of each new Business Plan should start with an outline or model. One generalized model for creating a business plan is presented in the companion to this publication, *Model Business Plan: A Supplemental Guide for Open Access Journal Developers & Publishers*.

Many developers of new Open Access journals, and even some publishers of existing journals for which conversion to Open Access is being planned, will have little or no prior experience in creating a business plan, and will find the *Supplemental Guide* to be a useful (if not sole) reference. Others will have substantial experience in creating business plans and will find their plans for other projects—in format, organization, and scope—transferable to the new project and situation. Some may have specific guidelines or requirements from a source such as a sponsoring organization or institution, or from a text on business planning, and will opt to follow those guidelines. The choice is yours, as long as the finished work meets all reasonable expectations for thoroughness and clarity and serves the purposes of a solid Business Plan.

The *Supplemental Guide* uses a chapter-by-chapter structure for a model plan, and within each of these chapters, presents topics and suggestions for your consideration.

1. Executive Summary
 2. Situational Analysis
 3. Project History, Status and Schedule
 4. The Journal or Service Description
 5. The Business and/or Funding Model
 6. Editorial, Content and Copyright Considerations
 7. Technology Considerations and Production Platform
 8. Online User Considerations
 9. Markets, Marketing, Sales and Pricing
 10. Organization and Staffing
 11. Financial Plan: Budget and Forecast
 12. Operating Plan
 13. Business Risks, Contingencies, and Mid-course Corrections
 14. Conclusion (or End Notes)
- Exhibits

Some of these may be irrelevant to you, and certain matters important to you may have not been treated explicitly or sufficiently. You may even find that a different organization will work better in your situation, for example, in consolidating certain main topics, or adding separate chapters for topics of greatest importance. Again, there is no single model or outline that will work well in all situations. Such is the nature of generalized guides.⁵²

⁵² There are many other self-help and how-to guides to business planning available on the web or in printed form (including those cited in Appendix III-B. Web Resources for Journal Publishers).

Section III: APPENDICES

**III-A. Potential Open Access Business and/or Funding Models:
An Annotated Inventory**

<i>Model</i>	<i>Description</i>	<i>Advantages</i>	<i>Disadvantages</i>	<i>Indicated</i>	
Self-generated Income					
Input Fees	Article processing charges	Assessing fees from authors or their proxies to offset publication expenses.	Distributes costs across individuals and institutions that benefit most directly from research publication.	Not acceptable to all disciplines.	For disciplines with an existing practice of page charges, or those open to new publishing practices.
	Off-print sales	Article processing charges that provide authors with PDF "reprints."	Little or no additional cost incurred by publisher.	Requires author demand for digital off-prints.	For journals willing to publish online in HTML only, increasing the appeal of PDF off-prints.
Affinity Relationships	Advertising	Web-based advertising relevant to journal's target audience.	Can generate ancillary income stream while providing worthwhile information to readers.	Most small and single-title publishers will lack sufficient scale (user demographics) to generate substantial income.	For multi-journal publishers and small or single-title publishers with target audiences attractive to advertisers.
	Sponsorships	Corporate sponsorships that subsidize all or part of operating expenses, often in exchange for sponsor recognition.	Less resource-intensive to maintain than a multiple advertiser program.	Poses potential conflict of interest concerns.	For journals serving audiences shared by non-controversial corporate sponsor.
	Conference co-hosting	Co-hosting of a conference to generate income or marketing awareness.	Increases journal brand position while generating modest income.	Presupposes sufficient journal prestige and credibility to appeal to a conference sponsor. Income may not even cover expenses.	For non-society journals that align well with an existing or potential new conference.

<i>Model</i>	<i>Description</i>	<i>Advantages</i>	<i>Disadvantages</i>	<i>Indicated</i>	
Self-generated Income continued					
Alternative Distributors	Convenience format licenses	Journal provides content to third-party distributors in format convenient for distribution to non-research and ancillary markets.	Generates incremental income while making content available to audiences that would otherwise be unaware of it and/or that may have special value-added requirements the third-party distributor can satisfy.	Requires sufficient content depth to provide value to third-party distributors. Might incur some author or sponsor resistance.	For content that can be repurposed for secondary markets (e.g., for patent prior art research).
Electronic Marketplace	E-commerce	Selling goods or services online to journal site visitors.	Can generate additional income while providing relevant goods and services to online users.	Complicates technical implementation and may incur additional development and operating costs.	For societies or other journal publishers with sufficient goods and services of their own (or access to those of others) to make electronic commerce worthwhile.
	Community marketplace	Journal site provides transactional space for relevant vendors and third parties to provide information and/or products and services to online users.	Can increase interest in the site while providing useful service to users, promote more frequent visits.	Complicates technical implementation and incurs additional development and operating costs.	For journals serving well-defined communities of sufficient size to support marketplace.
Complementary Products	Journal publication in off-line media	Print or CD-ROM edition of the online Open Access journal, with or without added features or content.	Generates income via fee-based convenience and/or archival copy. Can provide additional advertising venue.	Reconciliation of multiple online editions can complicate publishing process.	For journals serving markets with sufficient demand for off-line editions.

<i>Model</i>	<i>Description</i>	<i>Advantages</i>	<i>Disadvantages</i>	<i>Indicated</i>	
Self-generated Income continued					
Complementary continued	Other publications	Publication of other (generally non-research) products.	Generates additional revenue and reinforces journal's market position.	Requires product concepts capable of generating sufficient revenue to offset journal operating costs and additional resources for the other publications.	For journals with user communities that require directories, conference proceedings, and/or other information products.
	Value-added fee-based services	Fee-based services that enhance the use or utility of the Open Access content.	Provides a logical complement to the Open Access journal, as well as ancillary income.	Complicates technical implementation. Marginal value perceived by some users of some features.	For publishers, of multiple journals, that can distribute costs across larger customer bases.
Dues Surcharge	Dues surcharge	Increasing society member dues, voluntarily or otherwise, to subsidize Open Access publishing.	Maintains existing membership dues model. Potential to be well-received if framed properly.	Mandatory dues increase (even if modest) off-putting to members who consider dues the equivalent of a journal subscription fee.	For membership organizations with large enough member bases to keep surcharge small. (As alternative to mandatory surcharge, might seek voluntary contributions.)
External Subsidies					
Grants	Foundation grants	Philanthropic grants to fund journal development.	Grants can often cover significant development costs.	Too few funding sources to support all Open Access journals requiring grants.	For journals that require developmental funding to support the transition to open access publishing.
	Institutional grants and subsidies	Formal or informal subsidies from a host or sponsoring institution.	Relatively plentiful in modest amounts. Journal prestige reflects well on host institution.	May require a host institution or administrative unit (e.g., the library) to act as project champion.	For journals from well-funded academic departments or institutions with existing digital publishing support programs.

<i>Model</i>	<i>Description</i>	<i>Advantages</i>	<i>Disadvantages</i>	<i>Indicated</i>	
External Subsidies continued					
Grants cont'd.	Government grants	Departmental or operating grants from government funding agencies.	Can provide ample development support for large-scale journal projects in selected scientific fields.	Government grants do not typically fund dissemination of research. Subject to budget and policy vagaries.	For research dissemination in fields receiving substantial government funding.
Contributions	Gifts and fundraising	Donations and gifts from private donors to endow capital fund.	Where operating costs are low, a modest endowment could fund operations.	Requires fundraising skill and disposition. Can be disruptive and time-consuming.	For publishers at organizations with Development officers able to lend assistance and expertise.
	Voluntary contributions	Public form of fundraising that solicits many smaller donations (e.g., from user community).	Can be used for supplemental funding or as an adjunct to membership or conference fees, etc.	Can be disruptive and time-consuming.	Where a journal services an engaged and sufficiently large community, may provide supplemental income.
	In-kind contributions	Non-cash donations of tangible resources or assets, including labor, office space, etc.	Ready supply of relevant technical and editorial expertise typically available to worthy journals.	May be more difficult to negotiate in-kind contributions without an institutional or organizational affiliation.	For journals being sponsored at academic institutions, societies, other nonprofits.
Partnership	Partnerships	Mutual resource contributions and alliance between two or more complementary organizations.	Leverages strengths of each organization.	Requires partners with similar missions, but that do not directly compete for resources or for a market or audience.	Where organizations exist with similar goals, but insufficient resources to pursue a journal unilaterally.

III-B. Web Resources for Journal Publishers

This section lists web sites and sources of special interest to the developer or publisher of a scientific or professional journal. Some are general in nature while others pertain specifically to journal publishing under various business models (in some cases including Open Access). Many of these sites will also link to other interesting resources.

Entries are listed under the following categories:

- Directory of Open Access Journals
- Lowering costs and access barriers: organizations, initiatives, and resources
- Self-help and how-to guides
- Resources and tools for scholarly and professional publishing
- Intellectual property, copyright, author rights and user licensing
- Sample author agreements
- Interoperability, e-archives and reference linking
- Associations and consortia: libraries and academia
- Associations and consortia: publishers
- Information for organizing and operating a nonprofit corporation or charitable organisation
- Resources for grant-seekers and fund raising
- Resources for creating a business plan
- Vendors, service bureaus, software publishers, outsourcers, etc.

Directory of Open Access Journals

There are many hundreds of Open Access journals representing virtually all fields of science, scholarship, research and professional practice, from many types of publishers in many nations. Most are relatively new and started as Open Access journals. Others date back several decades or earlier, originating as traditional fee-based print journals (well before online publishing and the Internet) and now converted to Open Access. This is an excellent source of examples and links:

Directory of Open Access Journals

Lund University Libraries

<http://www.doaj.org>

Launched in spring 2003, the new online *Directory of Open Access Journals* (DOAJ), contains information about some 350 scholarly electronic journals that are freely-accessible online. The DOAJ is maintained and hosted by Lund University Libraries (Lunds universitets bibliotek, <http://www.lub.lu.se>), with support by the Information Program of the Open Society Institute (<http://www.osi.hu/infoprogram>) and SPARC, the Scholarly Publishing & Academic Resources Coalition (<http://www.arl.org/sparc>).

The goal of the DOAJ is to increase the visibility and accessibility of Open Access scholarly journals, thereby promoting their increased usage and impact. The directory aims to comprehensively cover all open access scholarly journals that use an appropriate quality control system. Journals in all languages and subject areas will be included in the DOAJ.

The database records will be freely available for reuse in other services and can be harvested by using the OAI-PMH (<http://www.openarchives.org>), thus further increasing the visibility of the journals. The further development of DOAJ will continue with version 2, which will offer the enhanced feature of allowing the journals to be searched at the article level, and is expected to be available in late fall 2003.

Information regarding Open Access journals that should be included in the DOAJ are invited. Use this form to report a journal: (<http://www.doaj.org/suggest>). For information about how to obtain DOAJ records for use in a library catalog or other online service, see: (<http://www.doaj.org/articles/questions/#metadata>).

Lowering costs and access barriers: organizations, initiatives, and resources

ALPSP Seminar on Open Access: Who pays for the free lunch?

Notes from the April 4, 2003 meeting discussing alternative models for research communication

<http://www.alpsp.org/2003pdfs/cas040403.pdf>

Alternative Publishing Initiatives

Resources for alternative scholarly publishing initiatives from the Association of Learned and Professional Society Publishers (ALPSP)

http://www.alpsp.org/http_altpubs.htm

Budapest Open Access Initiative (BOAI)

Collaborative call for open access to scientific research

<http://www.soros.org/openaccess>

Electronic Information for Libraries (eIFL)

Facilitates affordable access to electronic scholarly resources in countries in transition

<http://www.eifl.net>

Electronic Society for Social Scientists (ELSSS)

A nonprofit organisation devoted to increased competition in academic journal publishing, with institutional support from the Royal Economic Society, the University of St Andrews, the Consortium of University and Research Libraries, and Scottish Enterprise Fife

<http://www.elsss.org.uk>

Free Online Scholarship (FOS) Lists

Topical annotated lists and links maintained by Peter Suber, Earlham College

<http://www.earlham.edu/~peters/fos/lists.htm#declarations>

IFLA Manifesto on Open Access to Scholarly Literature and Research Documentation

Draft statement of the International Federation of Library Associations and Institutions, spring 2003

http://www.library.otago.ac.nz/pdf/ifla_manifesto_scholarly.pdf

International Coalition of Library Consortia (ICOLC) Statement of Current Perspective and Preferred Practices

Selection and purchase of electronic information by libraries

<http://www.library.yale.edu/consortia/2001currentpractices.htm>

International Network for the Availability of Scientific Publications (INASP)

Cooperative network aiming to improve worldwide access to information

<http://www.inasp.org.uk/index.html>

Open Society Institute (OSI)

International network of foundations supporting the development of civil societies

<http://www.soros.org/osi.html>

Public Library of Science (PLoS)

Promotes the free exchange of scientific information

<http://www.publiblibraryofscience.org>

SPARC Partners

The partnership program of the Scholarly Publishing & Academic Resources Coalition in support of nonprofit scholarly communications initiatives

<http://www.arl.org/sparc>

Statement on Open Access Publishing, Howard Hughes Medical Institute (HHMI) Workshop on Open Access

See *Open Access News*, June 22, 2003

<http://www.earlham.edu/~peters/fos/fosblog.html>

WAI (Web Accessibility Initiative)

W3 Consortium resources and activities promoting a high degree of Web usability for people with disabilities

<http://www.w3.org/WAI/Resources>

Self-help and how-to guides

Create Change: A Resource for Faculty and Librarian Action to Reclaim Scholarly Communication

A publication of SPARC, the Scholarly Publishing & Academic Resources Coalition

<http://www.arl.org/create/home/html>

Declaring Independence: A Guide to Creating Community-controlled Science Journals

A publication of SPARC, the Scholarly Publishing & Academic Resources Coalition

<http://www.arl.org/sparc/DI>

Electronic Journal Publishing: A Reader

A primer for e-journal publishers from the International Network for the Availability of Scientific Publications (INASP)

<http://www.inasp.org.uk/pubs/#15>

Gaining Independence: A Manual for Planning the Launch of a Nonprofit Electronic Publishing Venture

A publication of SPARC, the Scholarly Publishing & Academic Resources Coalition

<http://www.arl.org/sparc/GI>

Getting Started in Electronic Publishing

A primer especially for start-up publishers from the International Network for the Availability of Scientific Publications (INASP)

<http://www.inasp.org.uk/pubs/#15>

Guide to Best Practices for Canadian Publishers

National Library of Canada

<http://www.nlc-bnc.ca/9/13/indexe.html>

Publishing Guides: Journals

Resources for journal publishers from Caslon Analytics, Australia

<http://www.caslon.com.au/publishingguide5.htm>

Resources and tools for scholarly and professional publishing

ARL Office of Scholarly Communication

Issues and resources in scholarly communication from the Association of Research Libraries

<http://www.arl.org/scomm/index.html>

The DOI Handbook

A primary source of information about the system developed by the International DOI Foundation for identifying and exchanging intellectual property in the digital environment

<http://www.doi.org/hb.html>

Electronic Journals: A Selected Resources Guide

Resources and "how to" to related to e-journal publishing from Harrassowitz Agency, Wiesbaden

http://www.harrassowitz.de/top_resources/ejresguide.html

Free Online Scholarship (FOS) Newsletter

See *SPARC Open Access Newsletter (SOAN)* below

General Electronic Publishing

Online directory of interest to e-publishers with sections including directories and guides, mailing lists, organizations, publications, and tools, from the University of Houston Libraries

<http://info.lib.uh.edu/sepb/rgen.htm>

Hot Topics

Links to papers from The Association of Learned and Professional Society Publishers (ALPSP) and other bodies on multiple topics of interest

<http://www.alpsp.org/htopics.htm>

The Journal of Electronic Publishing

Formerly published by the University of Michigan Press (at <http://www.press.umich.edu/jep>) and scheduled to resume publication by the Columbia University Press (<http://www.columbia.edu/cu/cup>) starting fall 2003.

Publishing Resources for Journals and Repositories

List of sources of publishing and technical solutions and services from the Scholarly Publishing & Academic Resources Coalition (SPARC)

<http://www.arl.org/sparc/core/index.asp?page=h16>

Publishing Support Initiatives

Resources from the International Network for the Availability of Scientific Publications (INASP)

<http://www.inasp.info/psi/index.html>

SPARC Open Access Newsletter (SOAN)

The *Free Online Scholarship (FOS) Newsletter*, dormant since Sep. 2002, has been restarted as the monthly *SPARC Open Access Newsletter (SOAN)* and will continue to publish news and analysis of the Open Access movement, edited by Peter Suber.

<https://mx2.arl.org/Lists/SPARC-OANews/Message/95.html>

To sign up for the *Free Online Scholarship (FOS) Newsletter* and/or the SPARC Open Access Forum, go to: <http://www.arl.org/sparc/soa/index.html>.

Taking Your Journal Online

Resources and "how to" to further the development of e-journal publishing from the Canadian Association of Learned Journals (CALJ)

<http://calj.icaap.org/howto.html>

Tools and Resources for Online Journal Editing & Publishing

Topical site maintained by the University of Nevada, Reno Libraries
<http://www.library.unr.edu/ejournals/editors.html>

Intellectual property, copyright, author rights and user licensing

Background Documents

Selected readings (multiple titles and languages) on intellectual property and related matters from the Central and Eastern European Licensing Information Platform (CELIP)
<http://www.eblida.org/celip/documents/doc.htm>

Background Material on the International Situation

Selected readings and sources on intellectual property and related matters from the Digital Futures Coalition (DFC)
<http://www.dfc.org/dfc1/Archives/international/intl.html>

Basic Principles for Managing Intellectual Property in the Digital Environment

Committee on Libraries and Intellectual Property of the National Humanities Alliance (NHA)
http://www.nhalliance.org/ip/ip_principles.html

Copyown, a resource on copyright ownership for the higher education community

University of Maryland and Association of Research Libraries (ARL)
<http://www.inform.umd.edu/copyown>

Copyright and fair use of intellectual property resources

Stanford University Libraries
<http://www.fairuse.stanford.edu>

Copyright and intellectual property articles from the ARL Newsletter, 1997-2002

Association of Research Libraries (ARL)
<http://www.arl.org/info/frn/copy/copytoc.html>

Copyright resources; includes interactive Software and Database License Checklist

University of Texas System
<http://www.utsystem.edu/ogc/intellectualproperty/cprtindx.htm>

Copyright, Software and the Internet

Information from and regarding the Commission on Intellectual Property Rights (CIPR), a UK government initiative
<http://www.iprcommission.org/area5.asp>

Creative Commons

A not-for-profit organization devoted to expanding the range of creative work available to others and to assisting those who want to share their work while retaining copyright
<http://creativecommons.org>

E-forum for discussion of copyright and intellectual property issues

Council for Networked Information (CNI)
<http://www.cni.org/Hforums/cni-copyright>

Hot Topics: Copyright

Links to papers and other resources about copyright from The Association of Learned and Professional Society Publishers (ALPSP) and other bodies
http://www.alpsp.org/http_copyrgh.htm

Intellectual Property, Copyright and Fair Use Resources

Web page with many lists maintained by Lorre Smith, University Libraries, University of Albany
<http://www.albany.edu/~ls973/copy.html>

Licensing principles for contracts between libraries and information providers

International Federation of Library Associations and Institutions (IFLA)

<http://www.ifla.org/V/ebpb/copy.htm>

Licensing principles for electronic resources

Statement and guide for license negotiators from the Association of Research Libraries (ARL)

<http://www.arl.org/scomm/licensing/principles.html>

Licensing resources; includes sample license language and commentary

LIBLICENSE, Yale University

<http://www.library.yale.edu/~llicense/index.shtml>

Publications About Copyright Matters

International Association of Scientific, Technical & Medical Publishers

<http://www.ipa-uie.org>

Report: Working Conference on Copyright and Universities. July 2001 report of a conference held in Zwolle, the Netherlands.

<http://www.surf.nl/copyright/report.html>

"Seizing the Moment, Scientists Authorship Rights in the Digital Age," July 2002 report of a study by the American Association for the Advancement of Science (AAAS)

<http://www.aaas.org/spp/sfml/projects/epub/finalrept.html>

"What do you want from your publisher?" (an annotated checklist for authors)

International Mathematical Union (IMU)

<http://www.maths.qmw.ac.uk/~wilfrid/copyrightdoc.pdf>

WIPO Guide to Intellectual Property Worldwide (comprehensive individual country profiles on WIPO Member States)

World Intellectual Property Organization (WIPO)

<http://www.wipo.org/about-ip/en>

WIPO Intellectual Property Handbook: Policy, Law and Use (a broad introduction and review)

World Intellectual Property Organization (WIPO)

<http://www.wipo.org/about-ip/en>

Sample author agreements

There are numerous examples of publishers' agreements with authors accessible on the Internet, some of which are listed below. Most are available for reproduction without restriction or express permission. Some of these (or some combination) might serve as useful models for your author agreement.⁵³

Assignment of Copyright Form

New Journal of Physics

<http://www.iop.org/EJ/S/UNREG/B6nqBBgrHhdsNX6O.cG9TA/authors/-page=copyright/1367-2630/1>

Copyright and License Agreement

BioMed Central

⁵³ Be sure that whatever you may develop as your journal's standard author agreement is consistent with the organization's policies and best practices, and will allow for open access e-publication in perpetuity, whether the author retains or cedes copyright. You should obtain the advice of legal counsel in preparing this or any other contract, even if based on an existing model.

<http://www.biomedcentral.com/info/authlicense.asp>

Copyright Transfer Agreement

American Physical Society (APS)

<http://www.forms.aps.org/author.html>

Copyright Transfer Form

International Journal of Molecular Science

<http://www.ijms.org/copyrtf.htm>

Licence to Publish

Association of Learned and Professional Society Publishers (ALPSP)

<http://www.alpsp.org/grantli.pdf>

Model Author/Journal Agreement

Association of American Law Schools (AALS)

<http://www.marcihamilton.com/ip/agreement.html>

Nonexclusive Publication Agreement

Journal of Machine Learning Research

<http://www.ai.mit.edu/projects/jmlr>

Open Access License

Public Library of Science (PLoS)

<http://www.publiibraryofscience.org/ploslicense.htm>

RoMEO Project (Rights METadata for Open archiving)

Joint Information Systems Committee (JISC) UK

<http://www.lboro.ac.uk/departments/ls/disresearch/romeo/index.html>

Sample Publication Agreement

Association of Research Libraries (ARL) Office of Scholarly Communications

<http://www.arl.org/create/faculty/issues/manage%5Fex1.html>

Sample Publication Agreement

Life and Medical Sciences Online (LAMSO), Ludewig Verlagsgesellschaft mbH

<http://www.lamso.com/Agreement.htm>

Samples of Copyright Transfer and Licensing Agreements

Index and links to 20 agreements from a variety of not-for-profit and commercial organizations; see Appendix C in "Seizing the Moment, Scientists Authorship Rights in the Digital Age," July 2002 report of a study by the American Association for the Advancement of Science (AAAS)

<http://www.aaas.org/spp/sfrrl/projects/epub/finalrept.html>

Interoperability, e-archives and reference linking

CrossRef

Linking service for scientific and scholarly online publications

<http://www.crossref.org>

Digital Object Identifier (DOI®)

About the system developed by the International DOI Foundation for identifying and exchanging intellectual property in the digital environment

<http://www.doi.org>

JSTOR

Comprehensive archive of scholarly e-journals

<http://www.jstor.org>

Open Archives Initiative (OAI)

Develops and promotes interoperability standards; a protocol for collecting metadata about data files residing in separate archives

<http://www.openarchives.org>

Open Citation Project (OpCit)

A research project for integrating and navigating eprint archives through citation-linking, a collaboration between Southampton University, Cornell University and arXiv.org

<http://www.opcit.eprints.org>

Associations and consortia: libraries and academia

Association of Research Libraries (ARL)

Organization of more than 120 leading research libraries in North America

<http://www.arl.org>

Canadian Library Association (CLA)

National English-language association representing 21,000 Canadian libraries

<http://www.cla.ca>

Chartered Institute of Library and Informatic Professionals (CILIP), a new professional body formed April 2002 following the unification of the Institute of Information Scientists (IIS) and The Library Association (LA).

Professional association of librarians and information managers with over 25,000 members throughout the UK and in more than 100 countries

<http://www.cilip.org.uk>

International Coalition of Library Consortia (ICOLC)

Organization of some 150 library consortia from around the world

<http://www.library.yale.edu/consortia>

International Federation of Library Associations and Institutions (IFLA)

Represents the interests of library and information services and their users

<http://www.ifla.org>

Roquade

Partnership of Dutch universities for electronic scientific publishing

<http://www.roquade.nl>

SPARC

Scholarly Publishing and Academic Resources Coalition

<http://www.arl.org/sparc>

SPARC Europe

Scholarly Publishing and Academic Resources Coalition

<http://www.sparceurope.org>

Special Libraries Association (SLA)

International association representing the interests of thousands of information professionals in corporate, academic, and government settings in over 70 countries

<http://www.sla.org>

United Nations Educational, Scientific and Cultural Organization (UNESCO) Libraries Portal

International information gateway to thousands of libraries and library and academic organizations

http://www.unesco.org/webworld/portal_bib

Associations and consortia: publishers

Association of American University Presses (AAUP)

Organization of more than 100 nonprofit academic and scholarly presses worldwide
<http://aaupnet.org>

Association of Learned and Professional Society Publishers (ALPSP)

Represents over 200 not-for-profit publishers and related organisations worldwide
<http://www.alpsp.org>

Canadian Association of Learned Journals (CALJ)

Representing over 140 scholarly journals of Canadian publishers
<http://calj.icaap.org>

German Academic Publishers (GAP)

Organisation of German academic publishers
<http://www.ubka.uni-karlsruhe.de/gap-c>

International Association of Scholarly, Technical & Medical Publishers (STM)

Organisation for large and small companies, not for profit organisations and learned societies, traditional primary and secondary publishers and new players.
<http://www.stm-assoc.org>

International Consortium for the Advancement of Academic Publication (ICAAP)

Devoted to the advancement of electronic scholarly communication
<http://www.icaap.org>

International Publishers Association (IPA)

Non-governmental organisation with consultative relations with the United Nations. Constituency is book and journal publishers worldwide, assembled into 78 publisher associations at national, regional, and specialised levels.
<http://www.ipa-uie.org>

Signal Hill

European partnership of academic e-presses and support organisations
<http://www.signal-hill.org>

Information for organizing and operating a nonprofit corporation or charitable organisation

About®... Nonprofit Organizations

General interest for nonprofit planners and managers
<http://www.nonprofit.about.com>

Alliance for Nonprofit Management

General interest for nonprofit planners and managers
<http://www.allianceonline.org>

Charity Commission for England and Wales

Information for organizing and operating a charitable organisation, operational and legal guidelines, official notices
<http://www.charity-commission.gov.uk>

Financial Dictionary

One of many dictionaries and glossaries of financial and accounting terms readily available on the Internet
<http://www.ventureline.com/glossary.htm>

Financial Standards Accounting Board (FASB)

Generally Accepted Accounting Principles (GAAP) for US accounting and reporting
<http://www.fasb.org>

INC: Internet Nonprofit Center

General interest for nonprofit planners and managers

<http://www.nonprofit-info.org>

International Accounting Standards Board (IASB)

International Accounting Standards (IAS) for financial accounting and reporting in Europe and elsewhere

<http://www.iasc.org.uk>

Nonprofit Start-up and Internal Revenue Service (IRS) Answer Center

US tax and regulatory information, assistance, FAQ, and many useful links, from the Delaware Association of Nonprofit Agencies

<http://www.delawarenonprofit.org/startupfaq5.htm>

Official Internal Revenue Service (IRS) Web Site for Charities and Nonprofits

Tax, regulatory and compliance information, forms and publications

<http://www.irs.gov/exempt/display/0,,i1%3D3%26genericId%3D15048,00.html>

UK Fundraising

General interest for nonprofit and charitable organisation planners and managers

http://www.fundraising.co.uk/nfp_resources.html

Resources for grant-seekers and fund raising

The Chronicle of Philanthropy

A newspaper for the nonprofit world, including grant-seekers and makers.

<http://www.philanthropy.com>

Corporate Sponsorship Program of the Public Broadcasting System (PBS)

About a major corporate sponsorship program, with some potential analogies to an open access journal

<http://www.sponsorship.pbs.org>

Council for Advancement and Support of Education (CASE)

Resources and tools for grant development in education

<http://www.case.org>

The Foundation Center

Information for grant- and support-seekers including the *Directory of Corporate Foundations*, with links to private foundations, corporate-giving programs and other sources of nonprofit funding

<http://www.fdncenter.org>

Research Funding Agencies

A partial list of government agencies and foundations that explicitly allow their research grant funds to be used for author publication charges is provided by BioMed Central

<http://www.biomedcentral.com/info/authors/apcfaq>

UK Fundraising

UK and international fundraising resources

http://www.fundraising.co.uk/other_fr.html

Resources for creating a business plan

A companion volume to this Guide—the *Model Business Plan: A Supplemental Guide for Open Access Journal Developers & Publishers*—contains a chapter-by-chapter outline for developing a business plan to support a new Open Access journal (for more details, see section II-C, above). You may wish to refer to that document when developing your

plan. Also, of course, there are many other self-help and how-to guides to business planning available (including those cited above).

Vendors, service bureaus, software publishers, outsourcers, etc.

The authors and publisher of this guide have decided not to list any vendors, service bureaus, software publishers and outsourcers in order to avoid implying any recommendations or endorsements. You can easily identify such parties by searching the web and/or obtaining references from other e-journal publishers. As a start, see items listed under Resources and tools for online publishing above.

→ Notice of corrections, updates or suggested additions to the above entries would be appreciated. Please send by email to mhagemann@sorosny.org.

III-C. Privacy and Disclosure Policies

Top priority should be given to policies and practices that will protect online user privacy and give users such assurances. The policy, often termed a “Privacy Statement” or “Privacy Policy” should be included on the web site. Numerous examples may be found on the Internet.

Resist any temptation to treat any information about individual journal subscribers as an asset to generate ancillary income. Doing so can create considerable resistance and distrust of the journal’s intentions. However, to support web advertising sales and to demonstrate the use and value of your journal, you may wish to ask users to register as “subscribers.” Any data gathered in this way must be provided voluntarily (compulsory registration would violate the tenets of Open Access) and should be limited to key demographic data (for example, discipline, institution type, geographic location/postal code, income/budget controlled) without requesting any personal information (beyond e-mail address). Make it clear, on the registration page and in your privacy statement, that no personally identifiable information is being gathered. If user compliance with registration is so low as to render the sample of data meaningless in extrapolating any demographic characterization of your subscriber base, then you may wish to eliminate it or limit the registration to a simple email address capture in order to facilitate alert services. In this event, you can still use web server logs and other traffic measurement tools to provide sponsors, partners, advertisers, and others with a general sense of your journal’s traffic volume, user geographic distribution, and institution/user type.

If you intend to use *any* user-specific information (as opposed to aggregated data with user anonymity) in relationships with third parties—such as in exchanges, rentals or sales of subscriber data—this must be disclosed and it is strongly recommended that your site give every individual the option to grant or deny permission (known as “opt in” or “opt out”). The industry standard is now “double opt-in” (that is, a user must explicitly indicate willingness to participate, and subsequently confirm that willingness). Such systems require resources to maintain. It will rarely make economic sense for an Open Access journal to attempt to monetize its subscriber base.

III-D. Glossary

Terms used in the context of this Guide are defined as follows.

agent or broker – A party engaged under an agreement to represent and sell specified products/services to all or specified markets, either exclusively or non-exclusively, usually with a consideration such as a commission.

business and/or funding model – The assemblage of components from one or more self-generated and/or external sources that contribute to sustaining the development and publication of an Open Access journal, any complementary products/services, and the operation as a whole.

accrual method of accounting, also known as accrual basis – A method of accounting which is the opposite of the cash method (see below) in terms of the timing of income and expense recognition. Using the accrual method, income is reported when it is earned regardless of when it is actually received and expenses are reported when they are incurred regardless of when they have been paid.

cash flow – Cash flow from operations is the sum of all income booked to the operating entity less all expenses charged to the operating entity. It is also defined as receipts less disbursements. Thus, a cash surplus is realized when, for the accounting period (month, quarter, year), receipts exceed disbursements, and conversely, a cash deficit is realized when disbursements exceed receipts.

cash method of accounting, also known as cash basis – A method of accounting under which income is reported when it is actually received rather than when it is earned and expenses are reported when they are actually paid rather than when they are incurred. The cash method is the opposite of the accrual method (see above) in terms of the timing of income and expense recognition. Although accrual is the general standard because it more accurately shows the relationship between expenses and revenues, many smaller independent nonprofits find it easier to keep their books on a cash basis but have their bookkeeper or accountant produce accrual basis statements at the end of the FY.

critical mass of content – The volume of quality content available for publication—consistent with standards and policies—necessary to achieve and sustain high credibility and impact for the journal.

fixed costs or fixed expenses – Operating expenses that are incurred to provide facilities, organization, and infrastructure necessary to do business—in our context, engage in publishing—without regard to actual volumes of production, sales, online users, etc. Fixed costs remain relatively constant until changed by managerial discretion, such as by a decision to hire more permanent staff, increase office space, etc. Within general limits these expenses do not vary much if at all in relation to volume. Also see variable costs below. Some activities contain fixed and variable cost elements. (For example, a one-time or annual charge from an e-commerce facilitator is a fixed cost because it is the same fee—a flat fee—regardless of the number or sales amount of transactions processed through the system. Conversely, if there is a per-transaction charge in addition to or in lieu of the flat fee, such as a fixed amount per-transaction or a percentage of the purchase amount, this would be a variable expense driven by volume.)

Fiscal or Financial Year (FY) – The entity's consecutive 12-month accounting period—of which each month is its own fiscal period—starting with the first day of its first month and ending with the last day of its 12th month. Typically, this is the "Fiscal Year" in the

United States and “Financial Year” in Europe and elsewhere. The FY is not necessarily the same as the calendar year, although certain conventions do apply.

Gantt Chart – A widely used project management diagram for displaying project schedules and depicting tasks and the dependence between tasks, named for its developer, Henry Gantt.

Generally Accepted Accounting Principles (GAAP) – Financial accounting, reporting, and auditing standards usually applicable to United States organizations, even if nonprofit and tax exempt. Also see International Accounting Standards (IAS).

grant-of-use permissions – A grant of rights to use the intellectual property of another party, which is typically conveyed in a license or similar agreement.

intellectual property – Creations of the mind—inventions, literary and artistic works, and symbols, names, images, and designs used in commerce. Intellectual property is divided into two categories: copyright, which includes literary and artistic; and industrial property, which includes inventions (patents), trademarks, industrial designs, and geographic indications of source.

International Accounting Standards (IAS) – Financial accounting, reporting, and auditing standards usually applicable to organisations in Europe and elsewhere outside of the United States (except where local standards apply), even if tax exempt or charitable. Also see Generally Accepted Accounting Principles (GAAP).

loss leader – A product or service provided by an organization to its market at a financial loss, but with the intent to generate demand for other products/services that can be sold profitably, or to achieve other strategic and/or financial benefits sufficient to justify the expense of the loss leader.

market capture – Users, subscribers, customers, etc., that will be obtained from within the market universe; the term is often interchangeable with “market penetration.”

market segment or market niche – One of a number of distinct groups within a total market universe (see below). (For example, if the market universe is libraries, its segments may be academic research libraries, departmental libraries, public libraries, government libraries, etc. Market segments may also be viewed geographically, such as North America, Europe, etc.)

market share – The share of each market segment and/or the total market universe (see below) that is projected to be realized, or has been realized. (For example, site licenses will be sold by a certain time to 100 institutions within a universe of 1,000, representing a 10% share by that time.)

market space – The market universe occupied typically by multiple competitors. (For example, three journals publishing in virtually the same field and each competing for submissions from the same pool of authors and for subscribers from the same pool of prospects occupy the same market space.)

market universe – All prospects for each of the entity’s products/services, however such may be defined and reasonably quantified. (For example, the total market universe for an Open Access journal would be the number of Internet-enabled potential researchers globally, based upon the characteristics and/or qualifications and information needs of the intended audience. Another product, such as a directory or monographic work, may have a different market universe particularly if dealing with a sub-specialty of the larger discipline and/or available only if purchased.)

mirror site – A web site that maintains and enables online access to databases originated and/or residing at another location, usually in order to provide more convenient and

reliable access for online users in different locations. In deployment, one site acts as the principal host for Internet users, typically in the country or continent in which the service is produced, and a number other sites might maintain mirrors at other dispersed locations.

network benefits – The increase in customer/user value that derives from others having already adopted a solution. (For example, an interactive online discussion group facilitated on a web site is not very valuable if only a limited number are using it for its primary purpose—communicating with others. But, as the number of users and frequency of usage increases, the service becomes more valuable.)

Open Access—as it is used in the context of this document is defined in the Budapest Open Access Initiative as follows: "By 'open access' to (scientific) literature, we mean its free availability on the public Internet, permitting any users to read, download, copy, distribute, print, search, or link to the full texts of (peer-reviewed or pre-print) articles, crawl them for indexing, pass them as data to software, or use them for any other lawful purpose, without financial, legal, or technical barriers other than those inseparable from gaining access to the Internet itself. The only constraint on reproduction and distribution, and the only role for copyright in this domain, should be to give authors control over the integrity of their work and the right to be properly acknowledged and cited... copyright law gives the copyright holder the right to make access open or restricted, and the BOAI seeks to put copyright in the hands of authors or institutions that will consent to make access open. Open access journals will either let authors retain copyright or ask authors to transfer copyright to the publisher. In either case, the copyright holder will consent to open access for the published work. When the publisher holds the copyright, it will consent to open access directly. When authors hold the copyright, they will insure open access by signing a license to the publisher authorizing open access."

prospectus – A formal written document supporting a proposal or request for funding, such as a grant or contribution, and/or for approval of the parent organization to proceed with the initiative. Your original Business Plan can serve as a *de facto* prospectus, provided it presents information sufficient for readers to make an informed decision.

variable costs or variable expenses – Operating expenses that fluctuate in proportion to volume (e.g., the number of copies of a publication that are printed and mailed, while pre-press costs for design, typesetting and similar would typically be fixed costs regardless of volume). Variable costs usually increase in proportion to sales income. Also see fixed costs above. Some activities contain fixed and variable cost elements.

III-E. The Open Society Institute

The Open Society Institute is a private operating and grant-making foundation that develops and implements a range of programs in civil society, education, media, public health and human and women's rights, as well as social, legal, and economic reform. OSI is at the center of an informal network of foundations and organizations active in more than 50 countries worldwide that supports a range of programs. Established in 1993 by investor and philanthropist George Soros, OSI operates network-wide programs, grant-making activities, and other international initiatives.

The main office of the Open Society Institute is at 400 West 59th Street, New York, NY 10019. Telephone: 212-548-0600 or 212-757-2323. Telecopier: 212-548-4679 or 212-548-4600. The Budapest office of the Open Society Institute is at Oktober 6. u. 12, 1051 Budapest, Hungary. Telephone: +36-1-327-3100. Telecopier: +36-1-327-3042. OSI also has offices in Baltimore, Brussels, and Paris. For further information, please visit: <http://www.soros.org> or go directly to <http://www.soros.org/osi.html>.

The OSI Information Program oversees and coordinates the network's activities in areas such as Internet policy, library and publishing support, and access to information. For further information, please contact: Darius Cuplinskas, Director, OSI Information Program (Budapest), email cuplinsk@osi.hu or Melissa Hagemann, Program Manager, Open Access Project, OSI, Information Program, email mhagemann@sorosny.org.

The OSI Information Program has committed funding of US \$1,000,000 annually for three years in support of Open Access projects. Funding will include support for: the development of business models and plans for sustainable self-archiving and Open Access publishing; use of library networks to mobilize support for Open Access globally; support for researchers in low and middle income countries to publish in open-access journals which charge up front fees; development of software tools and templates for Open Access publishing, self-archiving, indexing and navigation; and promotion of the Open Access philosophy among foundations and donors, science and research funding agencies, libraries and universities, as well as governments, policymakers and international organizations worldwide. OSI may also provide direct seed funding to certain other types of Open Access and self-archiving initiatives.

III-F. The Budapest Open Access Initiative

The Budapest Open Access Initiative (BOAI), promulgated February 14, 2002, aims to accelerate progress in the international effort to make research articles in all academic fields freely available on the Internet. The BOAI arises from a meeting convened in Budapest on December 1-2, 2001 by the OSI. Attendees from around the world represented many points of view and academic disciplines, and had experience with ongoing initiatives within the Open Access movement. They explored how separate initiatives could work together to achieve broader, deeper, and faster success; the most effective and affordable strategies for serving the interests of research, researchers, and the supporting institutions and societies; and, how OSI and other foundations could use their resources most productively to aid the transition to Open Access and to make Open Access publishing economically self-sustaining. The result is the *Budapest Open Access Initiative*—a statement of principle, strategy, and commitment that has been signed by thousands of individuals and organizations from around the world, including scientists and researchers, and persons representing universities, laboratories, libraries and library organizations, foundations, journals, publishers, and learned societies.

The BOAI seeks to maximize Open Access within existing copyright law, in accordance with the wishes of the copyright holders. The Initiative does not advocate Open Access for copyrighted literature against the will of the copyright holder or in violation of copyright law. Nor does it advocate any change in copyright law. The Open Access website contains the full text of the Initiative, a list of signatories, proposals for action, and a comprehensive "frequently asked questions" document. Interested persons are encouraged to use this interactive site to learn how to participate in advancing the movement. For more information, see: <http://www.soros.org/openaccess>.

III-G. Lessons Learned from Open Access Publishers

The journal cost structures and business models examined in this Guide address a broad range of hypothetical situations. Fortunately, we can also learn from Open Access journal programs already in operation. The Open Access ventures described below—based on discussions with a representative of each—represent various types of organizations (universities, commercial entities, foundations, and academic departments) and combine various cash and in-kind components to offset expenses and sustain their operations.

Whatever their institutional structure or business model, all the initiatives reflect two essential business elements of Open Access journal publishing:

- *Operate on the leanest possible cost structure:* Most of the initiatives below successfully publish Open Access journals—with both online and print editions—at total expense levels of a few thousand dollars per journal per year. Obviously, such low costs reduce the pressure on income generation. Fortunately, the production environment for scholarly journals offers a ready source for both ardent voluntary labor⁵⁴ (motivated by a desire to advance knowledge in their field, the logic of Open Access publishing, or both) and in-kind contributions from host institutions (which will benefit in turn from the journal's success). While the journal must project a polished, professional image, such voluntary labor—especially in a journal's development stage—can prove critical while a journal establishes its income streams.
- *Gain credibility as quickly as possible:* Opportunities to generate immediate credibility by attracting a defecting editorial board are relatively rare. It remains important early on to assemble an eminent editorial board, solicit papers from prestigious authors, and establish rigorous peer review standards. Only in this way will you gain the market acceptance and credibility required for your journal to succeed. As noted previously, an online Open Access journal must overcome some long-standing value misperceptions. Maintaining the highest quality standards and delivering the best possible product from the outset provides your best opportunity to surmount these challenges.

If you succeed in these two components, the chances for your journal's success will be vastly increased. The following summaries of the experiences of established Open Access journal publishers will be instructive as you develop your strategies and plans.

These are among the useful lessons learned from publishers that have launched new Open Access journals:

Journal of Machine Learning Research (see: <http://www.ai.mit.edu/projects/jmlr>)

Lessons Learned:

- A prestigious editorial board builds journal credibility and market acceptance.

⁵⁴ Of course, such volunteer editorial and administrative work is not cost free. In economic terms, journal production that distracts academic editors from research and/or teaching may prove more expensive in real terms than entrusting journal production to professional staff dedicated to the process. However, as many commercial and nonprofit publishers benefit from such "free" labor as well, the issue does not apply to open access journals alone.

- Cooperating with a university press or society publisher can provide a print edition.
- Donated labor and in-kind contributions keep operating costs low.

The *Journal of Machine Learning Research* (JMLR), a US-based journal on artificial intelligence, was founded to compete with the commercially published *Machine Learning Research*. *Machine Learning Research's* editorial board found the journal's publisher to be unresponsive to their concerns regarding both the journal's high price and an unacceptable publication lag. The editors felt that the journal's price limited the circulation of important research, and the publishing delay ill-suited the discipline's pace. As a result, most of *Machine Learning Research's* editorial board resigned *en masse*.

Leslie P. Kaelbling, a computer scientist at MIT and former *Machine Learning* editor, founded *JMLR* to address the discipline's need for an effective publishing vehicle and with the explicit intent of replacing *Machine Learning* as the preeminent journal in the field. Kaelbling launched *JMLR* with an editorial board comprising most of the erstwhile *Machine Learning* editorial board. This immediately lent the new journal credibility typically difficult for young journals to achieve. Further, with a clear mandate from the field, *JMLR's* first issue—which included papers contributed by prominent researchers—was essentially in place before the journal's launch was announced. This fast start, coupled with the established, eminent editorial board, were critical to building *JMLR's* prestige and helping it compete against *Machine Learning Research*. *JMLR* encourages faculty authors to incorporate the editorial board's resignation letter, which was distributed widely in the discipline, as part of their tenure application.

The new journal's credibility is further enhanced by a cooperative, non-financial arrangement with MIT Press. This agreement gives MIT Press a non-exclusive right to publish the research material in print format. The Press, operating on a cost recovery basis, sells institutional subscriptions to serve the needs of research libraries seeking an archival print copy. Both parties benefit: *JMLR* addresses archiving, overcomes any digital-only stigma, and benefits from the marketing and branding of MIT Press; the Press' reputation, in turn, benefits from the quality and prestige delivered by *JMLR* editors and contributors.

JMLR's business model, while still fluid, centers on maintaining the lowest expense base possible by combining donated labor and in-kind contributions. MIT's Artificial Intelligence Lab donates web site support and server space, and the machine learning community provides an ample source of volunteers to help maintain and upgrade the site and service. The journal is run by volunteer labor. *JMLR* authors provide their papers in designated formats, and the volunteer managing editor proofs and corrects manuscripts. (This process differs little from that under *Machine Learning Research's* commercial publisher, which essentially managed printing and fulfillment, while volunteer action editors handled copyediting and formatting.) Still, the administrative burden of dealing with article flow and processing is not sustainable for the long-term. To lessen the burden, *JMLR* is looking to implement a low-cost editorial workflow system that interfaces directly with its authors and editors.

As *JMLR's* operating expenses are low, running at about \$2,000 per year for the Open Access online version, Kaelbling hopes to fund ongoing journal operations with grants from a small society and/or corporate sponsor. Additionally, the journal might seek additional funds via a modest donation or surcharge on the Machine Learning Conference registration fees.

BioMed Central (see: <http://www.biomedcentral.com>)

Lessons Learned:

- Substantial advertising revenue requires scale.
- Article processing fees can be packaged in institutional membership programs.
- Scaleable publishing platforms can support independent journal publishing endeavors.

BioMed Central (BMC) is a UK-based independent, commercial publishing entity committed to publishing peer reviewed Open Access biomedical research. As such, it represents one of the few commercial enterprises devoted wholly to Open Access publishing. BMC's "Open Access Charter" publicly manifests the company's commitment to maintaining an Open Access publishing policy, both prospectively and retrospectively, irrespective of changes in ownership or other eventualities.

Since its inception in 2000, BMC has grown to over 70 electronic-only journals in the life sciences and medicine. In addition to developing journals under its own imprint (e.g., *Cancer Cell International*, *Malaria Journal*, etc.), BMC—through its "Start Your Own Journal" program—also publishes journals proposed by societies, researchers, and others (e.g., *Arthritis Research*, *Genome Biology*, etc.), making it possible for new publishers in the life sciences and medicine to publish peer reviewed research without recreating the technical and business apparatus to support it. While not yet profitable in its early stages, BMC's business plan seeks a modest profit (of approximately 5%) as the organization matures.

BMC's business model combines article-processing fees with a multifaceted online advertising program. The company has developed an innovative approach to article processing fees. In addition to charging for individual article submissions, BMC offers an institutional membership that discounts multiple submissions received from an institution. This allows the company to generate a renewable revenue stream, while providing immediate free access to biomedical research. The concept has yet to win universal acceptance amongst academic libraries—traditionally, other departments within the university have borne the cost of author article processing charges—but initial results are encouraging nevertheless, with dozens of institutions having joined in the program's early stages. In some cases, institutional departments other than the library have taken a membership.

Besides institutional article fee support, BMC leverages the scale of its Open Access publishing operation to support an extensive online advertising program. BMC's advertising program provides a veritable sampler of the various advertising offerings available to online journal publishers.⁵⁵ While small and single-title publishers can certainly realize advertising income streams proportional to their relatively modest operating costs, BMC's experience suggests that larger advertising programs carry expenses that require significant scale to justify the expense. BMC, for example, has five full-time staff members dedicated to selling advertising and supporting the advertising program. Obviously, such a staff expense requires multiple journals to deliver sufficient target audiences. Even a larger scale online journal advertising medium such as BMC does not anticipate their corresponding income stream to be more than 20% of their total revenue. It is also worth noting that BMC has

⁵⁵ See <http://www.biomedcentral.com/info/advertising.asp>.

found journal users receptive to relevant advertising that provides valuable information in its own right, such as advertising for laboratory equipment.

BMC's scalable business model and technical platform supports multiple Open Access journals, at least in the life sciences and medicine. This allows faculty and others to focus on editorial issues, leaving business model and technical platform issues to a professional business staff. Any society or group of researchers can start their own journal, without the need for investment on their part, provided that prospective editors and members of the editorial boards of such journals have published themselves in journals represented in PubMed Central and have received funding from one or more major granting bodies. The success of BMC's business model would suggest that the business and technical framework could be extended to other disciplines and fields, including the social sciences and humanities.

Geometry and Topology Publications (see: <http://www.maths.warwick.ac.uk/qt>)

Lessons Learned:

- Annual print edition serves institutional library archival demands and provides income.
- Quality paper submissions and strong editorial board can compete with established journals.
- Donated labor and in-kind contributions keep operating costs low.

Geometry and Topology Publications, based at the University of Warwick in the UK, publishes *Geometry and Topology* (introduced in 1997) and *Algebraic Geometry and Topology* (introduced in 2001). Both are fully refereed journals of international scope, dealing with all aspects of geometry and topology and their applications. Managing Editors Colin Rourke and Brian Sanderson of the Warwick Mathematics Department founded the journals to provide publishing vehicles without the two-year publishing delay common with math journals. Originally independent, for legal and liability purposes G&T Publications now operates under the auspices of the University of Warwick.

While making all articles available free online, the publisher serves market demand for an archival version by offering individual and institutional print subscriptions. While papers are published online immediately upon clearing the peer review and revision process, the print version is published annually. This print cycle allows G&T Publications to aggregate articles and price the print edition on a per-page basis. The archival quality print version is published through the University's printing office. Produced on acid-free paper using print-on-demand technology, print copies cost US \$0.03 per page to produce. As the print is priced at US \$0.10 per page, this generates a modest operating surplus.

Besides the print edition, G&T offers an institutional electronic license that grants libraries the right to display and download digital content. While, relatively few subscribers opt for the electronic-only version, the majority of institutional subscribers select the archival print subscription (which includes the electronic rights license *gratis*).

Geometry and Topology has risen to be one of the top two or three journals in its field. To achieve this, the founders concentrated on enlisting the best editorial board they could. This, in turn, spawned a growing stream of quality article submissions commissioned by the editorial board. The flexibility of publishing online permitted the journal to grow gradually, with small initial issues, maintaining a high standard of article quality. The

journal's growth trajectory—both in terms of paper submissions and institutional print subscriptions—continues to rise.

G&T applies in-kind contributions and donated editorial labor to operate on a basis that requires little cash outlay. The University of Warwick provides free server space to support the journals, and Rourke and Sanderson furnish all the management and technical expertise. The most substantial ongoing expense is the managing editor time required to process and quality control manuscript submissions. (While G&T encourages authors to submit their papers in a standard electronic format, not all the submissions conform to this ideal.) Virtually the entire process operates electronically. The only additional staff expense (relatively modest) is for the University-supplied administrative and clerical support that manage print subscription fulfillment. G&T Publications' founders learned that the main resources they required were time, enthusiasm, and some practical computer expertise, not cash. In the end, the process was not that difficult—and extremely worthwhile.

Molecular Diversity Preservation International Foundation

(see: <http://www.mdpi.org>)

Lessons Learned:

- Donated labor and in-kind contributions can significantly lower income requirements.
- University printing offices might provide a short-run print edition.

The Molecular Diversity Preservation International (MDPI) is a non-profit organization based in Switzerland that promotes the deposit and exchange of molecular and biomolecular samples. The MDPI was founded by Dr. Shu-Kun Lin in collaboration with the University of Basel. In addition to sponsoring e-conference programs, MDPI publishes four Open Access journals: *Entropy*, *International Journal of Molecular Sciences*, *Sensors* and *Molecules*.⁵⁶

As with the *Journal of Machine Learning Research*, discussed above, the MDPI journals represent an extremely low-cost operation. MDPI combines donated technical and editorial labor, in-kind support, and inexpensive document formatting to keep operating expenses at a minimum. The University of Basel furnishes free network access, hosting (for www.mdpi.net), and server technical support as an in-kind contribution. Article formatting, where required, is outsourced, frequently to China or Russia, where formatting fees are lower. Francis Muguet, a research scientist in France, provides technical support for the journals' web sites. Muguet, aided by student assistants and other volunteers, undertakes projects to improve the journals' online presentation. All system and journal improvements are implemented with donated help and open source software. Planned enhancements include the presentation of three-dimensional graphics and a feature allowing readers to comment on articles online. This latter feature is seen as a way to overcome some of the biases inherent in peer review (for example, intellectual cliques) which sometime delay publication.

To provide institutional archive copies, a CD-ROM archive edition is available. MDPI publishes a print edition of each journal—published annually to lower costs—and intends to distribute a short print run of each journal to interested institutional libraries.

⁵⁶ Initially published as subscription-based by Springer-Verlag beginning in 1995, *Molecules* was converted to open access in 1997.

Ecole Nationale Supérieure de Techniques Avancées (ENSTA), Muguet's host institution, provides this in-kind printing support for the journals. A fee-based on-demand reprint service is also available for authors.

MDPI assesses article-processing charges of \$500 per article, although these are frequently waived to accommodate authors unable to pay. These fees, which represent almost two-thirds of the journals' income stream (65%), with the remaining 35% funded by the MDPI Foundation's samples exchange program. Together, these two income sources offset any expenses incurred to format the documents for web dissemination.

III-H. Authors, Acknowledgements, and Feedback

Consultants Raym Crow and Howard Goldstein were engaged by OSI to develop a guide to business planning and an inventory of business/funding models for Open Access journals, distinguishing between those to be newly launched and those to be converted or transformed to Open Access from an existing paid subscription basis. Messrs. Crow and Goldstein are affiliated with the SPARC Consulting Group (SCG) of the Scholarly Publishing and Academic Resources Coalition (SPARC), which has been an early and ardent supporter of the BOAI.

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Raym Crow is a Senior Consultant at SPARC Consulting Group and Managing Partner of the Chain Bridge Group. He has almost 20 years' experience in academic publishing and information services, specializing in strategic business planning, product management, and market development.

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Feedback:

Your feedback would be welcomed. Anyone having comments, suggestions or inquiries regarding this Guide and its subject matter are invited to contact:

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