

A Review of Emerging Models in Canadian Academic Publishing

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Introduction

The changes in scholarly communication have been well documented in numerous reports and articles over the last decade. Today most scholarly journals and a growing number of monographs are distributed in digital format over the Internet. In the near future, it will be common for scholarly publications to be “enhanced with embedded graphics, audio and video materials, all linked with datasets and applications needed to manipulate data, etc”¹. Moreover, user expectations in the digital world often involve easy, immediate, and free access to content. In addition, the rates of technological change are not expected to wane anytime soon, but rather accelerate.

This report presents the result of an environmental scan of the Canadian academic publishing landscape undertaken in January-February 2010 on behalf of the University of British Columbia Library. The purpose of the scan was to identify new models of peer-review scholarly publishing in Canada, with a particular focus on open access and library-publisher collaborations. The methodology involved a review of the literature and interviews with stakeholders in the Canadian academic publishing community.

In Canada, most scholarly publications are still produced by traditional publishers (scholarly societies, commercial publishers, and academic presses), and are made available via subscription or purchase. Many are in the social sciences and humanities. However, scholarly publishing in Canada, as elsewhere, is in a state of flux. Traditional roles are becoming blurred and new models are emerging. The review found three important factors that are contributing to the deployment of these new models:

1. **New technologies**, in particular the Internet and publishing management software, are having a huge impact on academic publishing and distribution in Canada. Open Journal Systems (OJS) developed by the Public Knowledge Project, for instance, is an open source software system for managing journal publishing processes. It is currently being used by approximately 5,000 journals around the world. OJS, and other similar platforms, manage the journal’s workflow from manuscript submission to publication making it significantly easier to publish and also reduce the costs associated with publishing. These new technologies are enabling libraries, scholars, and student groups to become more active players in scholarly publishing.
2. **Synergies Canada** is a collaborative initiative of twenty-one Canadian universities. Led by the Université de Montréal (with the Consortium Érudit), the project has four additional regional partners: Simon Fraser University, University of New Brunswick, University of

¹ Brown et al. pg. 14

Toronto, and University of Calgary. The purpose of the project is to bring Canadian humanities and social sciences journals online. It aims to develop a non-profit national infrastructure for Canadian scholarly publishing that will eventually expand beyond social sciences and humanities. 170 Canadian journals are currently participating in the project. The journals are mostly hosted by a university library, aggregated to the regional node, and made available through the national Synergies portal. The Synergies project has been led in large part by Érudit, a multi-institutional publishing consortium comprising the Université de Montréal, the Université Laval and the Université du Québec à Montréal, which has been instrumental in providing online access to Quebec, French-language journals. Synergies Canada was funded through a Canada Foundation for Innovation grant, provincial partners, and institutional operating funds.

3. **Open access** is a growing international movement that calls for the free availability of scholarly output over the Internet. Open access (OA) targets the peer-reviewed journal literature, for which authors receive no financial compensation, although in some cases OA is being adopted for scholarly monographs. Open access can be achieved in two ways: through open access publications or open access self-archiving, which involves depositing a copy of a subscription-based publication into an open access repository.

The concept of OA emerged in 2001 out of a meeting organized by the Open Society Institute in Budapest. Since then, its popularity has grown steadily. Authors who support open access do so because it broadens their readership, and governments support it because it makes research knowledge funded by taxpayers available to the public. Forthcoming funding agency and university mandates requiring authors to make their publications open access will likely further strengthen the prospects for open access.

Universities are the backdrop for most of the innovative approaches to scholarly publishing being adopted in Canada. Open access journals are steadily moving into the mainstream and open access monographs are starting to appear. E-books and print on demand services are being embraced by both university presses and libraries. A growing number of independent scholars, scholar collaboratives, and student groups are publishing their own peer-reviewed materials. And, Canadian libraries are becoming more active in publishing and dissemination, through the implementation of institutional repositories and journal hosting services.

A common theme running through many of the initiatives identified for this review is that they are the result of collaborations amongst different communities. Working together, libraries, publishers, and scholars are better able to find creative solutions to publishing in a rapidly evolving environment. In addition, collaborations can help to mitigate the risks inherent in change for all participants involved. It is reasonable to assume that strengthening these partnerships and

fostering new ones will assist Canadian organizations in adapting to changes in scholarly publishing.

Universities can play an important role in nurturing these kinds of relationships. Digital publishing activities on campus are often uncoordinated, and can sometimes be at odds. By better aligning the services of presses, libraries and other digital publishing projects, institutions can facilitate a shared vision and benefit from the combined expertise of representatives from various sectors. Universities have a lot to gain from becoming more engaged with digital publishing. As argued in a 2007 paper published by ITHAKA, “a renewed commitment to publishing in its broadest sense can enable universities to more fully realize the potential global impact of their academic programs, enhance the reputations of their institutions, maintain a strong voice in determining what constitutes important scholarship, and in some cases reduce costs.”² This review shows that Canadian universities are already deeply involved in a range of publishing activities. Universities should consider implementing a university-wide strategy, which would ensure that publishing activities are well supported and reflect the broader aims of the institution.

²ITHAKA is a not-for-profit organization dedicated to helping the academic community take full advantage of rapidly advancing information and networking technologies. See Brown, pg. 3

Case Studies

The remainder of this report describes specific trends in the scholarly publishing environment and presents a number of case studies that highlight these trends. The case studies should not be considered as a comprehensive record of initiatives in Canada, but rather an attempt to demonstrate the range of activities occurring here.

I. Open Access Journals

Open access journals have been moving into the mainstream over the last decade and currently represent a significant portion of the world's academic journals. As of March 2010, the Directory of Open Access Journals lists just fewer than 5,000 journals (4755)³. This represents approximately one-fifth to one-sixth of the estimated total number of journals being published currently⁴. In Canada, most of these open access journals are independent scholar-led journals not affiliated with large publishing houses. Many OA journals are hosted by libraries and are receiving support through the Synergies project.

Funding is a major challenge for Canadian journal publishers. Most Canadian-based journals are run on a shoestring budget, and rely heavily on volunteer contributions, graduate student work, and technical and hosting support from academic libraries. Open access journals must find funds other than via subscriptions to undertake copy-editing, layout, and XML markup of articles, marketing, etc. In addition, they must compete with the sophisticated platforms of the major publishers that are quite expensive to maintain. In Canada, as elsewhere, open access journal publishers are still looking for the right balance of funding sources in order to reliably cover the costs of publishing.

Current sources of revenue for open access journals include: grants, subsidies, sponsorships, institutional and individual memberships, advertisements, donations, and submission/article processing fees. Often, journals will derive funding from several of these sources. A recent survey of 998 journals using OJS software found that the “strongest source of revenue comes in the form of subsidies...from the institution, the state, or a donor, and a number of programs exist for the subsidization of scholarly publishing”⁵. The study found that submission or publication fees were a source of revenue for only 12 percent and existed principally for biomedical journals. Some journals, for instance many journals available through Érudit, provide open access only after a period of from 6 months to two-years. This allows them to retain some revenue from subscriptions for current issues, while providing free access to their archives.

³ From the Directory of Open Access Journals: <http://www.doaj.org/>

⁴ Corbyn, pg. 1

⁵ Edgar, et.al. pg. 11.

For journals in the social sciences and humanities (SSH), publishers are eligible for government grants from the federal government (e.g. SSHRC) as well as the Quebec government, although, these grants do not generally cover the full costs of publishing. The SSHRC subsidy program currently supports over 150 Canadian journals. A recent article describing the situation with Canadian SSH journals asserts, “Were subsidies not in place, few Canadian social science and humanities (SSH) journals would exist: the market is simply not big enough to support such publications. Without such journals, Canadian research would become far less visible.”⁶

Several university libraries in Canada⁷ have recently launched open access funds that enable their authors to publish in fee-based open access journals. The funds divert subscription monies towards open access publications and pay for article processing fees or institutional memberships.

The case studies detailed below demonstrate some of the new funding models being employed by open access journals/publishers in Canada.

Case Study: Canadian Journal of Sociology/Cahiers canadiens de sociologie

<http://ejournals.library.ualberta.ca/index.php/CJS/index>

The Canadian Journal of Sociology is an open access journal that publishes rigorously peer-reviewed research articles and innovative theoretical essays by social scientists from around the world, providing insight into the issues facing Canadian society as well as social and cultural systems in other countries.

In 2007, the journal transitioned from subscription model to open access. The editor made the decision to adopt an open access model principally in order to broaden the journal’s readership in Canada and abroad, ultimately improving the impact of the journal. In addition, the editor believed that the move was necessary in order to attract a younger generation of readers and authors.

As part of the transition, the journal left University of Toronto Press and moved to the University of Alberta site. The editor discontinued the print version of the journal and since 2008, they have published in electronic format only, using the OJS software. The costs of publishing declined significantly because most of their subscription revenues “went to cover the costs associated with producing a print volume, such as printing, subscription management and postage”⁸. The major costs for the journal are the salary of the editorial assistant and some funds to occasionally purchase new technology.

⁶ Lorimer et al. pg. 175

⁷ University of Calgary, University of Ottawa, and Simon Fraser University have all recently announced OA funds.

⁸ Haggerty, pg. 1

The journals single revenue source is a grant from the Social Sciences and Humanities Research Council of Canada. Hosting and technical support are provided for free through the University of Alberta Libraries and the Department of Sociology at the University of Alberta provides the journal with an office. In addition, the editor receives a competitive grant from the University of Alberta that releases him from teaching one course in order to work on the journal.

Case Study: Open Medicine

www.openmedicine.ca

Open Medicine is a peer-reviewed, independent, open-access general medical journal. The mission of Open Medicine is to facilitate the equitable global dissemination of high-quality health research; to promote international dialogue and collaboration on health issues; to improve clinical practice; and to expand and deepen the understanding of health and health care. The Journal examines issues relevant to health and clinical medicine both in Canada and internationally.

Open Medicine is a full open access journal and makes its content available through a Creative Commons Attribution Share Alike Licence. This means, users can copy, download, reprint, reuse, distribute, or display the Open Medicine content as long as the source is attributed. Authors retain copyright of their work when they publish in open medicine.

Open Medicine is an independent scholar-led journal with two co-editors and a number of deputy, associate and contributing editors. The journal relies heavily on volunteer time for much of its publishing activities. A recent article by Open Medicine editors says that it takes from about 25 to 31 hours to process each article- most of which is volunteer time.⁹

The journal uses the OJS system. It is part of Synergies Canada and thus receives free hosting and technical services by Simon Fraser University Library.

Until recently, the journal has received funding solely through donations and sponsorships.

The journal has a number of categories by which individuals and organizations can contribute:

- Supporters: provide a one-time, monthly or annual donations- a minimum donation of \$10 is accepted.
- Sponsors: Companies, individuals and other organizations are invited to support the development of Open Medicine by becoming a journal sponsor. Sponsorships provide funds that will help Open Medicine advance its service to authors and readers and fulfill its mission.
- Partners: Mainly libraries who support the mission of Open Medicine and provide funding

⁹ Murray et al., pg. e1

on an annual basis to the journal.

In January 2010, Open Medicine was accepted for indexing in PubMed. This is important because it is a stamp of approval of the quality of the journal and also raises the visibility of the articles published within. However, as a result of being indexed in PMC, the editors are anticipating an increase in article submissions, and a corresponding increase in the work required to review article submissions. In response, Open Medicine has introduced a publication charge for articles accepted by the journal. The fee is \$1200.00 Canadian for research and review articles and \$300 for commentary and analysis pieces. The fee will enable the editors to continue maintain the 3-4 month turn around times from acceptance to publication of articles.

Open Medicine also maintains a blog on the journal website that is authored by Dean Guistini a librarian at UBC Libraries.

Case Study: The Journal of Medical Internet Research

www.jmir.org

The "Journal of Medical Internet Research" (JMIR) was founded in 1999 and is a leading health informatics and health services/health policy journal. JMIR was the first open access journal covering health informatics, and the first international scientific peer-reviewed journal on all aspects of research, information and communication in the healthcare field using Internet and Intranet-related technologies; a broad field, which is nowadays called "eHealth"

The Journal of Medical Internet Research is an independent non-profit academic project, maintained by researchers without the involvement of any major publishers. It is hosted at the University Health Network, Centre for Global eHealth Innovation in Toronto, Canada. JMIR is a fully open access journal. The publishers believe that the Internet opens novel ways to publish scholarly work independently from any of the large publishing houses and they argue that research work should remain the property of the creator.

JMIR is financially supported by article processing fees (\$1500US) as well as through a network of individual and institutional memberships, forming a "Network of Excellence in eHealth Research". Membership options for JMIR are as follows:

- Individual Memberships are \$59.00 US dollars per year for a single user. Membership provides unlimited access to and downloading of all past and future PDF versions of JMIR articles and complete JMIR issues in PDF format; Discounts for conferences, events, products, and services from organizations we partner with and waivers of all article processing fees
- Institutional Memberships range from \$390US per year for an unlimited number of users (but does not include article processing fee waivers) up to \$25,000 for organizations that

want to be “Main Sponsors”.

- Article Submission fees of \$90 US are payable by all authors submitting articles for publication

Case study: Bioline International

www.bioline.org.br

Bioline International (BI) is a not-for-profit scholarly publishing cooperative that currently publishes over 70 open access journals. BI's goal of reducing the South to North knowledge gap is crucial to a global understanding of health (tropical medicine, infectious diseases, epidemiology, emerging new diseases), biodiversity, the environment, conservation and international development. By providing a platform for the distribution of peer-reviewed journals from developing countries, BI helps to reduce the global knowledge divide by making bioscience information generated in these countries available to the international research community worldwide.

Bioline is managed by scientists and librarians. It is a collaborative endeavor between Bioline Toronto (management office) and the Reference Center on Environmental Information in Brazil (host computer and software development). The project is supported by the University of Toronto Scarborough Department of Social Sciences (infrastructure) and sponsored by libraries and members.

Between 2000 and 2008, Bioline International was supported by in-kind contributions from the University of Toronto and the Reference Center on Environmental Information (CRIA) in Brazil, library acquisitions payments from University of Toronto Libraries, and the occasional grant from the Open Society Institute and others.

In 2008, Bioline implemented a new business plan involving membership and sponsorship contributions. The aim was to have revenues from these contributions support all aspects of Bioline International operations. Annual membership fees are \$500 US per year for Library or organizational membership and \$5000 US per year for Consortial Membership. Individual memberships and sponsorships are also available.

Bioline has also been seeking short term funding in the form of foundation sponsorships. These are negotiated individually, and are instrumental in helping Bioline to make the transition to a membership-supported model over a three-year period.

Case study: University of Toronto Journal of Undergraduate Life Sciences.

<http://juls.library.utoronto.ca/>

There is an increasing number of student-run journals in Canada. These peer-reviewed journals

provide the opportunity for students to “participate in the many facets of publishing and editing not directly offered through coursework”¹⁰. They enable students to gain experience in preparing and submitting manuscripts and sharpening their editorial skills. In addition, student-run journals are a vehicle for sharing research being conducted by students and are a “forum for students to showcase their talents in scientific research and social thought”. These journals are often hosted by libraries.

The University of Toronto Libraries is currently hosting 10 open access student-managed journals. One of these is the University of Toronto Journal of Undergraduate Life Sciences (JULS). JULS is dedicated to showcasing the research achievements of undergraduate life science students and to encourage intellectual exploration across the various life sciences disciplines. The Journal was established in the summer of 2006 and publishes once annually. All articles are edited by a two-stage peer-review process.

The journal project began with a small group of students who wanted to showcase various works of research by other students, and has quickly gained support from various departments and faculty members at the University of Toronto.

The Journal is an open access journal hosted by the University of Toronto Libraries using the OJS platform. It publishes in both print and electronic format. The journal receives free hosting services from the library, and is sponsored by 15 departments across the U of T campus.

II. Library Hosting and Publishing Services

Libraries are becoming increasingly involved in publishing activities on campus. In Canada, the Synergies project, has contributed to the relatively rapid deployment of these programs. Funding from Synergies is distributed to participating libraries, which in turn provide free hosting services and technical assistance for eligible journals.

Library services typically involve basic activities like hosting, technical assistance, and training in the use of the journal publishing software. In most cases, libraries are providing the services for free, although a few have or are planning to adopt a fee based model. OJS software is being widely used by Canadian libraries, and a number of libraries are also assessing whether they can expand publishing and hosting services to include monographs, when the Open Monograph Press software is released by the PKP project.

The majority of libraries approach their publishing services as part of broader, open access/scholarly communication initiatives on campus. These are strategic programs aimed at

¹⁰ Antonius et al. pg. 1

improving access to research results. As such, libraries often encourage, and sometimes require, that the journals they work with are open access. In most cases, library hosting and publishing services are distinct from those of the university press.

Publishing programs have helped libraries develop stronger relationships with departments, scholars and students who they are working with to publishing journals. However, there have also a number of challenges for libraries. Publishing services require significant staff time and expertise and there is not always an obvious fit for these programs within the tradition library organizational structure. In addition, it is not always easy to justify services that are not considered to be part of the core activities of the library, especially in lean times. Develop a sustainable service model that can meet the needs of very diverse clientele can also be problematic. Ultimately, because they are not known for providing publishing support, libraries need to actively market their services on campus.

Although library-hosted journals still represent a small minority of the academic journals published in Canada, the trend is likely to continue because there is a growing demand for these services from authors and editors.¹¹ A number of case studies of library services are described below. Summaries of other library programs can be found in Appendix 1.

Case Study: Software @ SFU Library

<http://software.lib.sfu.ca/>

The Simon Fraser University Library in Vancouver, British Columbia is a major partner in the Public Knowledge Project, an initiative directed toward improving the scholarly and public quality of academic research through the development of innovative online publishing and knowledge-sharing environments. SFU Library operates the entire support infrastructure for the project and is the home for the ongoing coordination and development of the PKP software suite, which includes the Open Journals System.

OJS and other PKP developed software are open source, can be downloaded for free, and users can make use of a free support forum. However, the SFU Library receives numerous requests for assistance by users of the software. In response, the library has established Software @ SFU Library, a fee based service which provides extra help to users.

Software @ SFU Library consists of a range of services related to the PKP software, with an additional level of publishing services available from the Canadian Centre for Studies in Publishing, which, through their CCSP Press. The services for e-journals are as follows:

- Annual Hosting and Support Package: installation, configuration, updating and hosting of

¹¹ A 2007 ARL survey that there is a significant demand for these services on campus. See Hahn, 2008.

OJS software.

- Custom Programming and Consulting Services: systems expertise at an hourly or daily rate.
- Training Services: in-person or remote, web-based training sessions at a daily date, plus travel if required.
- Layout Copy Editing and Publishing Services: layout work, copy editing and other general publishing services provided by SFU's Canadian Centre for Studies in Publishing.

To date, the SFU Library has worked with hundreds of publishers, and currently hosts over 230 journals from around the world, 25 of which are local journals participating in the Synergies Project. The services are available exclusively to journals using the OJS software, but they will work with both subscription-based and open access journals. The revenues are used to off set the staff costs associated with services and towards the library's contribution to open source software development projects.

According to library staff, library participation in PKP has been a successful and mutually beneficial partnership. The library's software development expertise and experience with managing and operating systems infrastructure have provided a solid foundation for the continued expansion and support of the PKP software suite. In turn, PKP has provided an opportunity for the library to be an active partner and to work with researchers, software developers, and scholarly journal publishers on an exciting initiative that has already made a significant contribution to the still-evolving environment of scholarly publishing.¹²

Case Study: York Digital Journals Project

www.fsc.yorku.ca/yul/drupal/ydj/

The York Digital Journals Project (YDJ) provides the technical infrastructure for hosting York University based academic journals. The services are offered and funded through the York University Libraries and include providing the storage, software, expertise and training required for journals. The Project is using OJS Software, which was chosen because of its large user community and its endorsement by the Synergies initiative.

The Project is currently hosting 18 journals. Most of these journals are either fully or partially open access. Some are SSHRC funded, others partially sustain themselves via subscription funding, and some are partially funded by departments/research centres. Most of them involve a lot of volunteer time and effort on the part of York faculty and graduate students.

The specific services offered to the York University community through the Project are as follows:

¹² Summarized from Owen et al.

- Provide the server space to host your journal.
- Create the journal using OJS software, and help you with some basic design.
- Train journal editors and staff to use of OJS software.
- Provide help with any questions or assistance needed.

York University Libraries is committed to the dissemination of Canadian scholarly information to a global audience. The library launched the York Digital Journals Project in order to promote the availability and accessibility of scholarly output produced by the York University community and its affiliates.

Funding for the Program come from the York University Library, with some limited supplementary funding through the Synergies project. The library funding supports the hosting environment, and staff time to create the journal web presence, training for journal editors, and other technical assistance. It was determined that a cost recovery model for services rendered would be prohibitive to their user community, however, the library will continue to periodically evaluate whether some of all these services should be fee-based.

Initially the hope was that journals would become self-sufficient and ultimately be able to publish without the help of the library, however, the library has come to realize this may not be possible given the high staff turnover at the journals that they are working with.

Case Study: McGill University Libraries

www.mcgill.ca/library

McGill University Library is currently acting as publisher for one McGill University journal: CuiZine, a new McGill e-journal that was launched in January 2009, and is in the process of moving the McGill Journal of Education to McGill, from its currently hosted site in the United States, with a view to publishing it as well. Both journals are open access and published in electronic format only. One is using the OJS software.

As publisher of these journals, the library is hosting the journal, providing technical assistance and training to editors, and distributing the journal via the McGill University website and the Érudit platform based at the Université de Montréal. In addition, as a publisher the library is providing endorsement for the journal content, as well as offering an extra level of support beyond the more common hosting services being offered by other libraries.

The publishing services are considered a pilot project and the library is in the initial stages of putting together a formal program that will offer these types of services to the broader McGill community. The services are offered free of charge to the journals, but the library may introduce fees if the program is expands.

E-journal publishing is considered part of the library's efforts to promote wider access to academic scholarship. Therefore, future services will likely be available only to journals that are open access.

III. Other Journal Hosting and Publishing Services

Libraries are not the only entities providing a range of journal hosting and publishing programs in the digital environment. A growing number of organizations, both for profit and non-profit, are offering these types services, often for a fee. The services tend to be more comprehensive than those offered by libraries. Several examples of Canadian service providers are included below:

Case Study: Érudit

www.Érudit.org

Érudit is a multi-institutional publishing consortium comprising the Université de Montréal, the Université Laval and the Université du Québec à Montréal. It is a non-profit society that offers an innovative model for the promotion and dissemination of research outputs. Érudit forms the “Quebec node” of the Synergies project and is both a publisher and an aggregator. It serves as a publishing centre for journals supported by the Fonds québécois de recherche sur la société et la culture. Retrospective digitization is done for more than half of the 67 journals. Érudit has been instrumental in providing online access to Quebec, French-language journals.

The Érudit platform aggregates and provides access to several types of documents: academic journals, e-books, proceedings, theses and dissertations, and other documents and data. A specific editorial process is applied to each type, and a search tool allows all types of documents in the entire collection to be queried, while also presenting results in the various categories. The Érudit platform currently provides access to over 140 journals covering a wide range of disciplines, most of which are Canadian French language publications. Érudit requires that all journals provide open access to their publications within two-years of publication. 10 of the journals in the collection are full open access. The other journals are available through subscription for up to two years, after which they are available free of charge. Over 80% of the content is open access while still allowing journals to obtain the revenue they need to ensure the continuation of their publishing projects.

The Érudit platform also includes an e-Books and Conference Proceedings zone, with the primary concern of publishing within short deadlines. The Digital Publishing Service for Proceedings permits dissemination in PDF format, as well as offering search services. At the same time Érudit provides an access page structure for the digital publishing of theses from various universities. The publishing process adheres to the most consistent standards applicable to digital book

processing with respect to both eBook and Web texts. Apart from the digital processing of books, this area also serves as an experimental zone for publishers and academics studying uses and new services for readerships.

Érudit also hosts and disseminates other types of non-peer review content such as reports and research notes, lectures, communications and other content that authors and researchers want to make available online (in text, audio or multimedia formats). It is both freely accessible and independent of the journals Érudit publishes.

Case Study: Canadian Centre for Studies in Publishing Press

www.ccsppress.com

The Canadian Centre for Studies in Publishing (CCSP) Press publishes works that examine publishing (excluding newspapers), report the results of research into publishing, and inform students of the practicalities of publishing. CCSP Press publishes for the scholarly, educational and trade markets, and is an innovative lab where new models and technologies of publishing will be developed and investigated with the intent of advancing industry practice.

CCSP Press addresses the needs of a wide range of journal publishers, delivering support on all levels of the journal publishing process. In support of their participation in the Synergies project and their partnership with the SFU Library and the Public Knowledge Project, CCSP Press has made available various publishing fee-based services including journal founding, transition of print to online journal publishing, editing, layout, proof-reading, marketing, and subscriptions management to assist journal in their publishing activities.

Case Study: Multimed Inc.

www.multi-med.com

Multimed Inc. is a Canadian-based international medical publishing and marketing corporation that was established in 1980. It publishes medical textbooks, reference books, periodicals, and peer-reviewed journals and offers a complete selection of publishing services and products.

Recently, Multimed Inc. launched a fee-based publishing service for open access journals. Multimedia will publish an open access journal using the OJS software. Multimed Inc. open access journals provide free access to the full text of articles and permit self-archiving by authors. They do not charge authors or authors' institutions for article submission, processing, or publication from the authors or authors' institution. The services offered, which can be tailored to suit the needs of individual journals, are as follows:

- Journal website creation and management
- Online manuscript submission and peer-review systems
- Advertisement management

- Installation and management of Open Journal Systems on Simon Fraser University's servers
- Training and support to editors, reviewers and authors
- Deposit data to databases such as Pubmed and CrossRef
- Access to our expert copyeditors, typesetters and proofreaders who specialize in the medical field
- Design, printing and distribution of print journals
- Secretariat functions for the society

Case Study: Resilience Alliance

www.resalliance.org

The Resilience Alliance is a research organization comprised of scientists and practitioners from many disciplines who collaborate to explore the dynamics of social-ecological systems. The body of knowledge developed by the RA, encompasses key concepts of resilience, adaptability and transformability and provides a foundation for sustainable development policy and practice. Resilience Alliance currently publishes 2 open access journals in the field of ecology.

The organization has recently launched journal development and journal management and maintenance services for academic societies, government agencies and other interested parties wanting to launch an open access journal or revitalize an existing journal. Using the OJS software, Resilience Alliance will help to establish a new peer-review journal or transform an existing journal to an online open access format. Each service agreement is unique, but service offerings include:

- Journal user interface design
- Guidance in the development of editorial processes and policies
- Hardware and software configuration and training
- Arranging journal abstracting and registration with libraries
- Hardware and software maintenance
- Managing peer review workflow
- Managing copy editing and publication
- Conversion of published HTML articles to print style PDF format

IV. University Presses

A university press is an academic, non-profit publishing house usually affiliated with a research university. Like all publishers, university presses are feeling the effects of changes to scholarly communication. A recent report published by the Scholarly Publishing and Academic Resources Coalition (SPARC) talks about the pressures exerted on university presses in the digital environment. "As they have struggled in a difficult market, university presses have been

criticized for failing to exploit the benefits of online publishing models. Yet such criticism often ignores the constraints under which the presses operate, including a financial model that typically requires them to recover almost 90% of their costs, and—more significantly—the expectations of their host institutions, indeed of the entire academy, that they continue to fulfill their traditional roles as publishers of original scholarly monographs.”¹³ In addition, “university presses have become less integrated with the core activities and missions of their home campuses over the years — a drift that threatens to widen as information technology transforms the landscape of scholarly publishing.”¹⁴ Without strong institutional support, it has been difficult for presses to adapt to changing circumstances.

Despite these challenges, a recent survey by the Association of American University Presses found that many of their members are moving towards e-book publishing and marketing their content through digital content vendors and aggregators. The survey also found that some presses are also experimenting with open access by making some of their digital monographs available free of charge. Below are a number of case studies describing new approaches being undertaken Canadian university presses in order to adapt to the changing publishing environment:

Case Study: Athabasca University Press

www.aupress.ca

Athabasca University Press (AU Press) is the centre of scholarly publishing expertise at Athabasca University. It was launched in 2006 and is the first scholarly press to be established by a Canadian university in the twenty-first century. It publishes from 10-20 monographs per year and also 7 academic journals. The Press has an active, interdisciplinary editorial board that ensures that it publishes only high quality manuscripts and its books won 4 awards in its first year of production.

Athabasca University is dedicated to the removal of all barriers to knowledge. As such, the AU Press is committed to the dissemination of knowledge and research through open access and the digital environment. The Press is completely open access. All of its digital publications are available for free over the Internet and, wherever possible, its publications are licensed with Creative Commons licences.

AU Press receives funding from Athabasca University, government grants, and it actively pursues co-publishing agreements with other universities. It also receives revenue from the licensing of e-books to content aggregators, as well as sales of print editions. Although difficult to assess, staff do not believe that free online access to the monographs have had a negative impacted print sales

¹³ Crow, pg.1

¹⁴ Brown, pg. 4

of the book, but rather have increased sales in some cases.

The Press is primarily focused on producing digital publications. However, it has a cooperative agreement with the UBC Press to undertake the printing of monographs for larger print runs, and contracts out with a company for more modest print runs. They are currently assessing the feasibility of incorporating a print on demand option.

Each book published by the AU Press has its own web presence. The web pages include a PDF copy of the entire book, as well as PDF copies of each of the chapters individually. The web site also contains supplementary material, which may include an introductory video produced by the Press, book reviews, and other related material pasted by the author. A print copy of the book can also be ordered through the book's web presence.

AU Press will also publish websites under its imprint that have scholarly parameters and standards (e.g. primary sources in labour studies, Métis and gender studies, the environment, etc.). Each website published by AU Press will be research content-based and subjected to an initial editorial peer-review assessment and periodic reviews. They have currently published two of these: The Canadian Theatre Encyclopedia and Aurora: Interview with Leading Thinkers and Writers.

The AU Press is investigating the use of new technologies that can enhance book publishing. They are working with the Public Knowledge Project to develop the new Open Monograph Press (OMP) electronic publishing platform. Like Open Journal System, OMP will provide an online workspace for publishing monographs, edited volumes and scholarly editions. Proposed features include an incubation site where authors can blog ideas; online composition tools to create text and related resources; and an interactive publication site that will support reader comment and other input.

Case Study: University of Calgary Press

www.ucalgary.ca/UP/

The University of Calgary is actively involved in reviewing traditional publishing, digital publishing, scholarly communication and open access issues. The University of Calgary Press currently publishes 15-25 books a year and provides their imprint to 10 scholarly journals.

It is uniquely positioned under the umbrella of the University Libraries & Cultural Resources division (LCR). In early February, a major reorganization of the Libraries & Cultural Resources Division resulted in the Press now forming part of a new Centre for Scholarly Communication within the LRC. The Press has been actively involved in this restructuring and is very pleased with the potential it offers.

Funding for the Press comes from block and project grants through Canadian Heritage and the Alberta Government. The Press actively seeks additional support from foundations and faculties. They also receive revenue from sales of the books and support through the parent organization, Libraries & Cultural Resources. Modest revenues to cover management fees come from the journals.

With a new vision of ‘Making a difference. Making you think’, the Press is undergoing a transformation from a traditional print-only operation to a multi-option publishing house that will include e-Books, e-journals, print-on-demand and open access materials.

The close relationship between the Press and the library has supported and driven these changes. The library has helped with understanding user expectations, as well as how to be more visible to their clients.

The transformation of the Press is expected to take from 2 to 3 years. As part of this transition, the Press will focus their book publishing activities on six or eight areas of specialty rather than publishing in many subject areas. They will be actively fundraising, seeking outside and unconventional funding for these areas.

The Press is developing electronic databases of scholars in North America who publish or have an interest in these subject areas and market directly to them for sales and course adoptions. In addition, they are undertaking the following initiatives:

- In-depth review of all operations from peer-review and acquisitions to distribution, fulfilment and marketing. They have been doing some initial testing with the Open Journal Software to assess whether this online journal production software can help to lower production costs and streamline pre-production processes.
- Print on demand: The Press will continue to print books, but will move towards a print-on-demand model with shipment directly to the client. The quality of print-on-demand is increasing and they see it as a solution for meeting the needs of the readers, while also cutting down on storage and distribution costs.
- Open access: The Press will be contacting its current and backlist authors to obtain permission for converting their files to open access. Going forward, authors will be asked to sign a Creative Commons agreement and to give permission for open access to their books.
- E-books: The Press will provide free access to pdf versions of monographs on their website, but intends to sell the e-Book versions with some value-added components. The e-Books will be released at the same time as the print version and will be sold for the same price as the print version (softcover only – the Press doesn’t normally print hardcovers).

- E-journals: University of Calgary is a partner in the Synergies project and the Press is encouraging relevant journals to participate. The Press is currently advising its journals to convert to online formats by the end of the current contract year (three years). They are using the Open Journal Software for publishing their journals and are looking at how to adapt this to their monograph publishing, possibly using the Open Monograph Press software now being beta tested by Athabasca University Press.
- Author agreements: The Press received a Flying Squad publishing consultation grant from Canada Council to review their author agreements with the above arrangements in mind. They are revising their author contract and are happy to share it with interested publishing colleagues.

Case Study: University of Toronto Press

www.utppublishing.com

The University of Toronto Press was founded in 1901 and is Canada's oldest and largest scholarly press and is one of the largest university presses in North America. They publish approximately 150 new scholarly, reference, and general-interest books and maintain a backlist of over 1800 titles in print; as well as publish over 30 scholarly journals. In 2008 they acquired the Social Science & History lists from Broadview Press and have established a new division which focuses on publishing textbooks.

The Press is a global publisher drawing authors from both Canada and the International academic communities. The market for their monographs reaches well beyond Canada, with about 45% of sales going to the US market. Books are sold into libraries, the trade market and for use on course with sales fairly evenly split between the three major sectors.

In 2008, UTP digitized over 1300 of their backlist titles for release through library e-book aggregators, such as the Canadian Electronic Library. Books in this initial collection were published prior to 2006. UTP continues to add to their collection and has included the majority of titles published up until 2009. While the uptake in Canada through the CRKN process was significant, sales into the broader market have been modest. The bulk of revenue continues to come from print sales. A recent survey they conducted across North America confirmed that monographs are in the midst of a transition period where the demand is still high for print books but interest in growing for electronic books.

Late in 2009, the Press made their first foray into digitizing some of their backlist in order to make selected titles available in e-book format (xml) for sale to consumers through the ebook retailers (e.g. Sony, KOBO, Amazon, Apple (later this year)). As with the previous digitization/conversion project, the work was contracted out to an offshore vendor. The

experience dealing with the epub/xml files was significantly different and far more challenging when compared to the conversion to web-enabled pdf files. The quality control/proofing process was unexpected and very labour intensive. Several rounds of checking were required before the files were finalized. The complex nature of the Press's publications (i.e. references, footnotes, tables and other types of figures, etc) make the process of conversion to xml quite difficult. The UTP Press is in the process of developing and transitioning to a xml editorial workflow which will reduce the impact of the conversion.

The Press has been using two vendors to do short run digital printing which ensures that books no longer need to go "out of print". They are considering alternative POD vendors, such as Lightning Source, particularly for off-shore markets.

The UTPress' books are available through a number of discovery services, such as Amazon and Google Book Search. PDF files of all new releases are sent to Amazon and Google Books on a monthly basis to enable online browsing through the 'Search inside the Book' programs. These services have significantly raised the visibility of their monographs. For example, figures for the last week of February 2010 show that the UT Press books have received 30,844 visits of 1853 unique titles, with 404,000 pages viewed. 454 books received 'Buy the Book' clicks sending the user to a online retailer (although these do not always translate into a sale – stats indicate approximately 1.5% of the 454 "clicks" to an online retailer actually purchased a book).

In terms of journals, the Press publishes 32 scholarly journals mainly in the social sciences and humanities. 19 these journals are available in digital format (in addition to the print editions). The online journals are available through MetaPress, an e-content management system for scholarly publishing. Each journal is indexed at the article level and can be searched through a single access point. They also distribute their journals through a number of article aggregator services including MUSE, JSTOR and EBSCO.

All UT Press journals are available through subscriptions, though subscription prices are lower than many other scholarly journals. Some of the journals are receiving SSHRC grants, but these grants do not cover the full costs of publishing. In the last several years, the Press has seen subscriptions for journals decrease, but this has been offset by an increase in royalties from aggregators. This represents a preference by users (mainly libraries) towards accessing content via the electronic aggregators.

The Press is also involved with the University of Toronto Library and scholars in a project called "Lexicons of Early Modern English" which is described in more detail in the Digital Humanities section of this report. Lexicons of Early Modern English (LEME) is a historical database of monolingual, bilingual, and polyglot dictionaries, lexical encyclopedias, hard-word glossaries, spelling lists, and lexically-valuable treatises surviving in print or manuscript. The database

enables scholars to undertake original research into the entire lexical content of Early Modern English. The Project is run by scholars, and co-published by the University of Toronto Press Inc. and the University of Toronto Library. The University of Toronto Libraries provides technical support for the project and hosts both the public and licensed database. The University of Toronto Press provides the sales, marketing and access control for the licensed product.

One of the challenges for the Press has is keeping up with the rapidly changing technologies for both journals and book production. Choosing and implementing the appropriate technical platforms for publishing and providing access to content involves significant investments in both staff time and money. Yet, these choices are hard to make because technologies are changing so rapidly, the market for print products continues to dominate and it is difficult to predict their future direction. That being said, UTP is well underway in changing to meet the new digital reality.

V. Digitization and Print on Demand Services

Both libraries and publishers are looking at print on demand (PoD) services for monographs and other types of material. PoD enables books to be printed one at a time. “The book, including the cover, is set up as a digital file. When an order comes through, the right file is selected by the computer, which then gives the instruction to the print on demand machine to produce it.”¹⁵

Publishers view print on demand as a cost-effective way of keeping their backlist going. For books ‘in print’, PoD saves money on storage and warehousing costs and no funds get tied up in stock, “allowing books to be published with very much less initial investment and ongoing cost”¹⁶. For libraries, print on demand usually means offering out-of-copyright books from its digitized collection to a wider readership- sometimes for a fee.

Case Study: McMaster University Libraries Digitization Program

<http://digitalcommons.mcmaster.ca/mcmastercollection/>

The McMaster University Library owns a Kirtas robotic book scanner and has begun a program to digitize out-of-copyright books in the collection. Collectively dubbed “The McMaster Collection,” the library has more than 90,000 books available for scanning through its digitize on demand site, described below. As books are digitized, records for the electronic version will be added to the library catalogue, integrating them with the full collection of print and electronic resources available through the library.

The library has established relationships to support re-publication of their digitized collection.

¹⁵ Definition taken from the website, Writers Services, http://www.writersservices.com/res/ri_POD.htm

¹⁶ Definition taken from the website, Writers Services, http://www.writersservices.com/res/ri_POD.htm

Working with Kirtas Technologies, they have established a Digitize on Demand (DOD) site through Kirtas Books that displays more than 90,000 potential digitization targets from the McMaster University Library. Fully indexed in Google and searchable from the site itself, the DOD catalogue allows the library to sell downloadable e-book and print reproductions in both hard and softcover. Kirtas provides the e-commerce, shipping, and order tracking components, and the Library contributes its rich collections. This has proven to be a fruitful arrangement, with 20-30 orders per month being placed through this single site. Their agreement with Kirtas also provides for their content to be distributed to major retailers including Amazon, Barnes & Noble, Lulu.com, and the Sony eBook Store. Their digitized books will begin to appear in Amazon shortly, with the other sites to follow.

The library's digitization services are also complemented by a print on demand service being offered by the campus bookstore. The bookstore owns an Espresso Book Machine, which prints digital books quickly and inexpensively from a digital file. So far, the library has collaborated with the bookstore to produce several themed publications—reproductions of a first-edition copy of A Christmas Carol in December, books of poetry for Valentine's Day, and several works by Charles Darwin in conjunction with a conference held at McMaster on Darwin's birthday—and expect this partnership to expand as more finished digital files become available available.

Case Study: University of Toronto Libraries' Digitization Services

<http://discover.library.utoronto.ca/resources-research/special-collections/local-digital-special-collections>

The University of Toronto Libraries' Digitization Services fall into three broad areas:

- 1) The digitization of local special collections has focused on unique, special materials that are of interest to the scholarly community. Typical collections are: "Anatomia 1522-1867: Anatomical Plates from the Thomas Fisher Rare Book Library", "The Barren Lands: J.B. Tyrrell's Expeditions for the Geological Survey of Canada, 1892-1894", and "Discovery and Early Development of Insulin, 1920-1925". Work on these collections is often grant funded and involves the development of a web site specific to the collection that help "tell a story" about the collection or that provide a navigational dimension that extends beyond the raw metadata helps to bring the collection to life.
- 2) The digitization of resources and/or the development of information delivery tools in conjunction with faculty research projects. Typical initiatives are: "Jackson Bibliography of Romantic Poetry", "Lexicons of Early Modern English", "University of Toronto English Library", and "REED (Records of Early English Drama) Patrons and Performances" which is operated in conjunction with the University of Toronto Press. Typically, these research project based initiatives are focused on the humanities. This project is described in more detail in the "New forms of digital scholarship" section.

- 3) The mass digitization of out-of-copyright materials in conjunction with the Internet Archive digitization facility, which is collocated with the Libraries' Information Technology Services Department. The IA facility operates 19 Scribe scanning stations that are operated two shifts per day, five days per week. To date the facility had digitized nearly 250,000 volumes from the collections of the University of Toronto Libraries and from other institutions. These digital resources are accessible via the Internet Archive and via the Scholars Portal e-book platform.

VI. Open Repositories

Open repositories make their contents freely available over the Internet. They are not publishers, but rather are an infrastructure for providing access to content. Open repositories collect copies of journal articles published elsewhere (often in subscription-based journals) and make them freely available over the Internet. Open repositories are possible because the majority of journals (about 70%¹⁷) permit authors to archive copies of their articles in a repository, including journals published by many of the major commercial publishers.

Open repositories may be institution-based or discipline-based. Disciplinary repositories focus on collecting publications within a specific subject area, while institutional repositories tend to have broader collection policies and collect publications in a wide variety of disciplines. In addition, most discipline-based repositories are international in scope, while Institutional repositories are maintained by libraries are usually mandated to collect the output created at a single institution.

According to the Canadian Association of Research Libraries, over 80% of their academic members have an institutional repository, and that number is expected to continue growing.¹⁸ Right now, Canadian institutional repositories collect mostly electronic theses and dissertations, followed by e-prints of published articles.

Case Study: QSpace Repository

<https://qspace.library.queensu.ca>

The QSpace digital repository at Queens University collects, preserves, and distributes digital content produced by members of the Queen's community. QSpace content consists of collections produced by Queen's communities. The collections are managed, preserved and made accessible by Queen's Library and IT Services through QSpace. Content and access to collections are determined by Queen's University department or community responsible for the

¹⁷ According to the UK-based SHERPA-ROMEO service, a service that monitors publishers so called 'self-archiving' policies, about 70% of publishers allow authors to make their articles available through an institutional or disciplinary repository.

¹⁸ From private communications with the Canadian Association of Research Libraries and its members

collection. Contributors are encouraged to deposit materials into the repository themselves. However, assistance with the deposit process is available upon request.

The QSpace repository currently contains over 4000 full text documents. The document types included in the repository are electronic theses and dissertations, preprints, working papers, technical reports, conference papers and data sets in various digital formats. Content grows daily as new communities and collections are added to QSpace.

Case Study: Archimède

<http://archimede.bibl.ulaval.ca>

Archimède is a digital repository hosted at l'Université Laval Library. The repository collects and makes available the entire collection of theses and dissertations produced at the University since 2006. The repository is a collaborative project between the Graduate Studies Department and the University Library. Archimède currently contains over 3000 dissertations and theses.

The Archimède repository software was developed by the l'Université Laval Library. It is free, open source software that can be downloaded and used by anyone interested. The software was developed with a multilingual perspective, with. Using the open source standard (i18n), the text (or content) of the interface is independent and not embedded in the code. It is then relatively easy to develop an interface in a specific language without having to work on the code itself. English, French and Spanish interfaces are already offered in Archimède. That software also allows the user to switch easily from language to language anywhere and anytime during his search and retrieval process.

Case Study: PMC Canada

<http://pubmedcentralcanada.ca>

PubMed Central Canada (PMC Canada) is a full-text, free digital archive of peer-reviewed health and life sciences research publications. It builds on PubMed Central in the US, which is managed by the U.S. National Institutes of Health (NIH). PubMed Central Canada receives its entire journal content, over 1 million articles, directly from the US PMC archive. But, PMC Canada provides a bilingual search interface and deposit mechanism for Canadian users.

PMC receives the majority of its content through publisher deposit, but it also supports deposit from authors whose research is funded by the National Institutes of Health and several health funding agencies in the UK. PMC Canada was developed to enable researchers funded by Canada Institutes for Health Research (CIHR) to deposit their publications directly into the repository, supporting the implementation of the CIHR Policy on Access to Research Outputs.

VII. Aggregators and Harvesters

Aggregators and harvesters improve the accessibility and visibility of digital publications. Harvesters aggregate the metadata from digital collections, so that they are searchable from a single location. Digital aggregators bundle content from different publishers together. They partner with multiple publishers to supply content (e-books, audio books, other media) and provide a platform for libraries and end users to search, order, access, and download the content on the Web. Libraries favor using aggregators and harvesters because they provide access to content from groups of publishers or repositories, instead having to deal individually with each organization.

Canadian Electronic Library Publishers Collection

http://www.canadianelectroniclibrary.ca/Cdn_publishers_collection.html

The Canadian Electronic Library Publishers Collection is a collection of over 25,000 Canadian monographs (of which over 10,000 are current in-copyright titles) from 65 Canadian publishers, making the service Canada's largest collection of online books for libraries. Among these are all the major Canadian University Presses. Many of the titles in the collection are from Canada's leading scholarly publishers, most being offered for the first time in online e-book form. Over 80% of the titles in the Canadian Publishers Collection have never been available in digital form and most of the titles in the collection are available electronically only through the Canadian Electronic Library.

Any item in the collection is available to all users simultaneously, and sophisticated search tools allow for quick location of items of interest. Users may move easily between material on all media (text, audio, video) and local collections may be integrated with published sources.

The Canadian Publishers Collection is produced by Gibson Library Connections a Canadian company that aggregates and licenses products to libraries and library consortia across Canada. The Collection is widely available in Canada because has been purchased by the Canadian Research Knowledge Network a licensing consortium representing over 70 Canadian universities.

Case Study: Canadian Association of Research Libraries Metadata Harvester

<http://carl-abrc-oai.lib.sfu.ca/>

The CARL Harvester is the search service that aggregates the metadata records from participating Canadian repositories, allowing users to seamlessly search all of the repositories at once, using one common point of access. The harvester is hosted at Simon Fraser University Library, was in March 2004 to enhance the visibility of Canadian repository content. The harvester currently aggregates metadata from 23 Canadian repositories representing over 140,000 full text documents housed in the repository.

The content is updated daily. Once a day, the harvester makes a request to each of the participating repositories using the Open Archives Initiative Protocol for Metadata Harvesting (OAI-PMH), returns all new or updated records, and incorporates them into its database. The updating is fully automated and the new records are available immediately for searching after they are retrieved.

VIII. New Forms of Digital Scholarship

New forms of peer-reviewed scholarship are being developed because of new technologies. These types of projects represent the next stage in scholarly publishing, that enable “scholars to work in deeply integrated electronic research and publishing environments that will enable real-time dissemination, collaboration, dynamically-updated content, and usage of new media.”¹⁹

There are a wide variety of projects spanning almost all disciplines that fall into this category and it is difficult to generalize about them because they are so diverse. However one common characteristic is that they are often collaborative in nature and are usually developed and maintained by a community of scholars, with assistance from a university library or technical services. Below are two case studies which highlight this burgeoning area of scholarly publication.

Case Study: Lexicon of Early Modern English

<http://leme.library.utoronto.ca/>

Lexicon of Early Modern English (LEME) is a database of 123 glossaries, bilingual lexicons, and monolingual dictionaries from the Early Modern English period, 1480-1702. Its alpha version contains 430,000 word-entries. The database enables scholars to undertake original research into the entire lexical content of Early Modern English.

The development and maintenance of LEME was supported through grants from the Social Sciences and Humanities Research Council of Canada (SSHRC) and from McMaster University's TAPoR Project (Text Analysis Portal for Research), which received a research infrastructure grant of the Canada Foundation for Innovation (CFI) and the Ontario Innovation Trust (OIT).

There are two versions of LEME, a public one and a licensed one. The public version of LEME allows anyone, anywhere, to do simple searches on the multilingual lexical database but lacks advanced retrieval options. The licensed version of LEME is designed as a full-featured scholarly resource for original research into the entire lexical content of Early Modern English.

The Project is run by scholars, and co-published by the University of Toronto Press Inc. and the

¹⁹ Brown, pg. 4

University of Toronto Library. The University of Toronto Libraries provides technical support for the project and hosts both the public and licensed database. The University of Toronto Press provides the sales, marketing and access control for the licensed product.

Case Study: Barcode of Life Data Systems

<http://www.boldsystems.org>

The Barcode of Life Data Systems is a global library of DNA barcodes, which are short genetic sequences that distinguish species from each other. Barcode of Life Data Systems supports the organization and analysis of barcode data. The data in this free and public database are being used by thousands of researchers and practitioners around the world.

The Barcode of Life Data Systems was developed and is maintained by scholars at the University of Guelph. All these barcoding projects share the goal of building an open-access database of reference barcodes that will improve our understanding of biodiversity and will allow non-taxonomists to identify species. As of August 2009, researchers had deposited over 670,000 barcode records from 61,000 species into the international Barcode of Life Database.

Direct funding for the Network currently exceeds \$24M. Major sources of support include Funding from the Canada Foundation for Innovation, Genome Canada through the Ontario Genomics Institute, Ontario Innovation Trust, NSERC and the Gordon and Betty Moore Foundation. Additional contributions (\$1M) were secured from various federal agencies and private sector organizations as part of our co--funding strategy.

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Appendix 1: More examples of journal publishing services at Canadian libraries

University of Alberta Libraries

<http://ejournals.library.ualberta.ca/>

University of Alberta Libraries currently manages a journal hosting service using the OJS software. They host both student and faculty journals, both open access and subscription-based. This popular service has spread throughout our scholarly environment largely via word-of-mouth and includes journals of both longstanding reputation and brand-new publications, as well as student-run, faculty-supervised journals which serve to enhance undergraduate/graduate research competencies for dissemination competencies.

The services provided by the library are as follows: Hosting, preservation via the COPPUL LOCKSS Alliance, upgrades, provide start-up support (usually 3-4 meetings), troubleshooting routine issues that pertain to the local hosting environment, and they will on occasion liaise with the Public Knowledge Project on behalf of hosted journals. They do not provide design support and promote self-directed learning, the use of Public Knowledge Project forums and documentation, the retention of the services of technical editors, and a sustainable plan for ongoing knowledge transfer so that the journals are responsible for “passing the torch” for system knowledge.

The journal hosting services fall within the ‘Information and Financial Services’ portfolio, which holds responsibility for collections strategy and development. They offer free services for open access journals and charge a nominal fee for subscription journals. Their business model has involved fully articulating all elements of support (staff and basic infrastructure) for this service. We did this so that we may plan for sustainability of the service.

University of British Columbia

<http://ojs.library.ubc.ca/>

The UBC Library runs a journal hosting service for open access journals. The service provides access to server space and to the open source OJS software for UBC faculty members who are editing or supporting Open Access electronic journals as well as recognized UBC student journals. UBC Library currently hosts 5 open access journals through this program and are interested in expanding to other journals.

UBC Library is hosting the journals without charge, for now. Faculty interested in having ejournals hosted by UBC Library sign an agreement outlining the responsibilities and liabilities for the Library and participating ejournals. The agreement indicates that the Library will offer server space and the OJS software to store and disseminate the contents of the ejournals. Each of

the journal publishers will be provided with administrative control to allow them to set up their own online area for their respective journals.

In addition, the UBC Library/UBC Press are in the early stages of collaborating on some projects. To date this includes digitizing UBC Press publication 'Atlas of British Columbia' and hosting ancillary or supplementary materials of UBC press publications in cIRcle, UBC's Information repository.

University of Guelph Library

<http://journal.lib.uoguelph.ca/>

The University of Guelph Library currently hosts 8 journals, with 2 more in development, using the open journal system. The hosting services are part of the broader Scholarly Communication Program at the library. All journals hosted by the library are open access. The library services are currently provided to journals for free. The specific services offered by the library are as follows:

- Provide the server and software, namely Open Journal Systems (OJS)
- Provide initial OJS software training to one or more journal representatives
- Provide consultation on journal policies and metadata
- Provide troubleshooting support to resolve questions and problems that arise
- Customize the software to meet the particular requirements of the journal
- Install software upgrades as they become available
- Ensure perpetual access to the journal
- Include the journal in high-profile discovery systems including the National Synergies platform
- Promote the journal as part of their communications strategy
- Provide usage statistics

McMaster University Libraries

http://digitalcommons.mcmaster.ca/peer_review_list.html

McMaster University Libraries offers a number of services for online peer-review journals using the DigitalCommons platform. The services are part of the Scholarly Communication Program at the library. They are provided free of charge and include hosting, training, and technical support. In addition, the Digital Strategies Librarian works closely with editors upon initial start-up of the journal to create a look and feel unique, giving each of them a distinct character.

The library currently hosts 10 journals, 4 of which are student-managed publications. The

services are available to the McMaster University community and support both subscription-based and open access journals. However, the library encourages journals to consider open access as an option, where possible. The library is considering requiring editors to sign a memorandum of understanding with the library to ensure that participants are serious and committed to their journal projects.

University of New Brunswick Electronic Text Centre

www.lib.unb.ca/Texts/

The Electronic Text Centre at University of New Brunswick Libraries offers a variety of services in the area of electronic publishing, digital imaging, and humanities computing. The Centre partners with people and institutions across Canada to promote advanced technologies in scholarly communication. The Centre is considered a vital part of the Library's commitment to enriching scholarly communication through advanced technologies and to preserving our digital heritage. The collaborative projects are based on a shared commitment to open standards for engaging with content and technologies.

The Text Centre is involved in a diverse number of projects. However, in terms of peer-reviewed publications, the Centre works with both electronic journals and e-books. It is the regional node for Synergies and hosts journals participating in the project originating in the Atlantic provinces. The Centre creates and distributes 16 university journals employing a variety of business models. They also occasionally publish monographs.

Queens University Library

<http://library.queensu.ca/ojs/index.php/index/index>

Queen's University Library (QUL) has installed the Open Journals System software for use by Queen's faculty and staff wishing to publish an online open-access or subscription-based journal. The library currently hosts 7 journals employing a variety of business models (open access and subscription based). The major journal in the field of surveillance studies (Surveillance & Society) has just moved to the QUL site from Germany and will be available soon.

The library services are offered free of charge. Through the program, the library will provide the server space to host the journal; create the journal using OJS software and help with basic design; train editors in the use of OJS software; provide ongoing advice and support. The goal of the program is that eventually journal editors will be self-sufficient and will be able to publish future issues independently.

University of Toronto Libraries

<http://jps.library.utoronto.ca/>

University of Toronto Libraries runs two publishing programs: Open Journal System and Open Conference system. The journal program currently hosts 24 titles, 10 of which are student led. The University of Toronto is the regional lead for the Synergies project and a number of the journals hosted by the University of Toronto have received support through Synergies to go online.

The program focuses on hosting and providing advice to publishers. The library makes sure that the Canadian Social Science journals are added to Scholars Portal. They are also working on OJS software development. For example, they are trying to improve the ability of OJS to host multiple journals.

For the student-run journals, the hosting is free of charge. For the other journals, the library charges a hosting fee of \$750.00 per year. For publishers that cannot pay this fee, the library will consider waiving the fee. In addition the library will waive the fee in cases where it will help journals shift to an open access model or make the transition from print etc. Most of the journals and conference proceedings hosted by the library are open access. For the journals that are not, the library requests a free institutional subscription in exchange for free hosting services.

University of Victoria Library

<http://journals.uvic.ca>

The University of Victoria offers a Journal Publishing Service using the Open Journal Systems software. The services are located on the central university server in order for them to be perceived as university wide services- although the staffing support comes from the library. The services include hosting, as well as assistance with clients to get the journal up and running. In the case where editors have little technical experience, library staff will train them to use the software.

In some instances, hosting is provided for free, in others, where funds are available, a hosting fee is charged to the journal. All publishing activities, such as copyediting and distribution, must be funded by the publishers themselves.

The library currently hosts 6 journals. Most of the journals are open access and the library encourages the editors of the journals it works with to consider the open access option. Because University of Victoria does not have a university press, the library is considering publishing monographs once the PKPs open monograph software is available.

University of Western Ontario Libraries

http://ir.lib.uwo.ca/peer_review_list.html

At the University of Western Ontario, the library has partnered with different campus units to create two peer review open access journals. It also provides a site at which a Canadian scholarly society offers delayed open access to its peer review journal. Several research centres on campus have adopted the library's publishing services to enable free public access to their academic publications and conference materials. The library uses the Digital Commons platform to host and manage the aforementioned scholarly content.