



Summary of the proceedings
of the seminar

**New Models of
Knowledge Dissemination
and Open Access in Canada**

Érudit and the Canadian Research Knowledge Network (CRKN) invited publishers of scholarly journals and directors of Canadian university libraries to meet in Montréal on November 17, 2015 to discuss new open access-inspired paradigms for disseminating knowledge. Over 110 participants from all across Canada attended.

The New Models of Knowledge Dissemination and Open Access in Canada seminar was part of the partnership between Érudit and the CRKN in support of scholarly journals and open dissemination. This innovative, ambitious partnership involves 53 Canadian university libraries and 107 Canadian scholarly journals transitioning from a subscription to a partnership model.

We are pleased to present you with a summary of the presentations that were given on that day.

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Word of welcome

Loubna Ghaouti, Vice-President, Érudit,
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The New Models of Knowledge Dissemination and Open Access in Canada seminar has been organized jointly by Érudit and the Canadian Research Knowledge Network (CRKN) and flows from a discussion that the two organizations began two years ago, which has resulted in a lasting relationship between scholarly journals and libraries. The purpose of the seminar is to expand the discussion to all stakeholders in the world of scholarly publishing. The new open-access paradigm for disseminating knowledge raises major challenges for everyone at the seminar: transformation of approaches to dissemination, changes in economic models, new funding agency mandates and policies, skyrocketing costs of scholarly communication.

The new challenges disrupting the ecosystem of scholarly publishing are leading to deep changes in forms of funding; it is therefore essential for all involved in dissemination of knowledge to reflect together on solutions facilitating the transition to open access. By opening the dialogue, the seminar establishes the foundations of such reflection so that the CRKN-Érudit partnership can offer a joint vision of what we should and can do together, with both partners demonstrating solid commitment, sharing of knowledge and pooling of expertise and competencies.

Development of the harmonized open access policy of the three Québec funding agencies (Fonds de recherche du Québec – FRQ)

Louise Poissant, Research Director, Society and Culture, FRQ (Fonds de recherche du Québec, Société et Culture (FRQSC))

Louise Poissant described the FRQ's draft harmonized open access policy, which was still in the process of being written. She noted that the FRQ was in the consultation stage, and encouraged seminar participants to share their ideas and questions.

While the Health section of the FRQ (Fonds de recherche du Québec, Santé (FRQS)) had implemented a open access policy on January 1, 2009, the FRQ had the intention to develop a harmonized policy in order to also include the Society and Culture (FRQSC) and Nature and Technology (Fonds de recherche du Québec, Nature et Technologie (FRQNT)) sections. The goals of the policy are research promotion, support for researchers with respect to research dissemination, improved access to research findings funded by the FRQ and opening up of dissemination to audiences other than researchers alone.

1. Description of the future policy

A number of broad principles underpin the FRQ's policy on open access dissemination of research findings:

- academic freedom with respect to teaching and publishing: the FRQ does not want constraints set

by scholarly journals or publishers to compromise academic freedom;

- promotion of research and innovation through dissemination, transfer and also commercialization of findings, in accordance with conditions appropriate for each area of research;
- peer review in order to ensure publication excellence and quality;
- promotion of best practices and recognized research standards;
- compliance with ethical standards and protection of personal information, which involves anonymity, transparency and fairness regarding groups affected by research findings;
- harmonization with Canadian funding agencies and other organizations at the international level.

In Canada, the CIHR has had a policy in favour of open access since 2008, while the SSHRC and NSERC adopted such policy in 2015.

Open access dissemination can be achieved in various ways: through the website of a journal publisher or of a congress publishing the proceedings of a conference, through discipline-based repositories, through institutional repositories (belonging to universities, research centres, hospitals) or through the Érudit platform, which brings together a number of scholarly journals and other publications.

Those awarded funding will be required to make research findings they have published in articles in peer-reviewed journals public and freely accessible within 12 months of their publication. For this, the preferred means are to archive the final revised version of the peer-reviewed article in an online institutional or disciplinary repository or to publish it in an open-access journal. The possible cost of publication in an open-access journal (for which there may be a per-article fee) can be provided for in the funding received by the researcher.

The goal of the present policy is to put into practice the conclusions of the January 2014 report presented by the former Scientific Director of the FRQ, Normand Labrie. According to the report, the purpose of an open access policy is to make the findings of publicly funded research accessible to the greatest possible number of readers and not just to the research community. A number of stakeholders have crucial roles to play in dissemination and mobilization of knowledge: authors, whether they are students or researchers; readers; publishers (journals, publishing houses, associations), which will have to rethink their business plans; and finally new players associated with digital publishing (libraries, institutional repositories, dissemination platforms). All of these stakeholders will have to be mobilized.

2. The policy's impact on scholarly journals

Policy fostering open access dissemination has various forms of impact on scholarly journals. First, they will have to change their business plans because, on one hand, expenditures will change (publication, digitalization, dissemination, hosting and marketing costs) and, on the other hand, revenue will also change, whether it comes from authors, readers, subscriptions, dissemination platforms, advertising, or private or public funding. Next, it has to be noted that the impact of and stakes involved in open access are different depending on the field. For example, a scientific article in medicine or technology may not be very interesting 12 months after its initial publication, whereas in the human and social sciences, in most cases, readers consult articles that are more than a year old. Such field-dependent differences lead to different requirements for journals and disseminators.

To this is added a field-related difference at the level of funding programs for journals: in Québec, since last year, only the FRQSC has still been offering such funding. Another implication of open access dissemination for journals is the promotion of French as a language of research and publication when there is English-language hegemony at the international level. Moreover, from the point of view of funded authors, the policy may lead them to submit articles only to journals that will allow them to publish their articles in open access 12 months after the initial publication. Finally, for a journal, having a time limit of 12 months could result in fewer subscriptions, especially in the social sciences and humanities, where the newness of the publication is less important to the reader.

The FRQSC's program for funding scholarly journals consists in a biannual competition at the end of which 2-year funding is offered to emerging journals, and 4-year funding is offered to established journals. To be eligible, a journal has to publish more than 50% of its articles in French. Since October 2007, funded journals have to entrust their digital publication and dissemination to Érudit. The FRQSC has been encouraging free access since 2014, and plans to adopt a strict policy in 2016.

3. Avenues for reflection

In order to foster the ongoing reflection on the FRQ's open access dissemination policy, Poissant proposed the following list of questions:

1. What would be the consequences of an open access policy addressed mainly to authors without taking into account the ecosystem of scholarly publishing? This is relevant because, according to the present formulation, the burden of compliance with the FRQ's policy would be on authors' shoulders alone.
2. How could we assist authors in choosing journals to which they should submit their articles in accordance with open access dissemination after 12 months? What could be the consequences of this choice on the very findings of their research, according to the partners involved?
3. What open access policy should be adopted in order to take into account the various business models required to ensure the sustainability of scholarly journals? The objective is to maintain the greatest possible number of scholarly journals active. In order to be eligible for funding, the journal has to publish at least 12 articles a year, but is the funding offered sufficient?
4. What is the policy's scope regarding publications resulting from networks, groups, clusters and research centres? What impact will it have on the acceptability of publication fees in funding programs?
5. What resources will platforms like Érudit need?
6. What support in terms of expertise, training and financial contributions do we need to provide universities to ensure they have cutting edge institutional repositories?
7. What means should be offered to PhD students who opt to write a thesis in the form of scientific articles?

Changes in scholarly publishing in the digital era

Vincent Larivière, Associate Professor at the Université de Montréal's École de bibliothéconomie et des sciences de l'information and holder of the Canada Research Chair in the Transformation of Scholarly Communication

Larivière presented the findings from his work on changes in forms of knowledge dissemination produced by the transition to digital technology. One of the features of the passage into the digital era has been growth in the production of knowledge. Although the increase in the number of scholarly journals has been exponential since their creation in the seventeenth century, from the late 1970s, many people have been anticipating stabilization. The numbers show that, on the contrary, the exponential growth is continuing owing in particular to the creation of new discipline-based and national journals – and this has continued with a vengeance with the explosion of scientific research in China and India. The digital era, which began in the early 1990s and then became more widespread around the mid-1990s, is another major factor in the exponential growth. By facilitating the creation, updating, access to and dissemination of information, digital technology is leading to a major transformation in the way scholarly journals are produced and published.

1. Diversification of places of publication

The first effect of the transition to digital technology has been diversification of places of publication. Increasingly, the best articles are published outside of journals with high impact. Indeed, since the advent of the digital era, the relationship between journals' impact factors and the number of times articles are cited has been weakening. In other words, the most important articles are less and less often published in scholarly journals considered to be the most important. The reason for this is simple: researchers now find their secondary sources not in the small number of (paper) journals available in their environment, but in a much greater pool available online. If an important article has been published, it can be found, read and cited independently of the journal in which it was published. For example, at the beginning of the 1990s, a journal such as the Proceedings of the National Academy of Sciences (PNAS) published nearly 9% of the articles among the 1% most cited, which was proof of the major concentration of high quality research in the pages of that journal. In 2010, however, the PNAS published less than 3% of the articles of that 1%. This phenomenon can thus be seen at the macro, but also the micro level, from journals' specific points of view. Major multidisciplinary journals are declining while new journals, such as PLoS One, which are also multidisciplinary but published in open access, are growing, as are new specialized journals, which often have acceptance rates that are higher than the major general journals, such as Science and Nature.

2. Language of publication: Anglicization

The second effect of the transition to digital technology can be seen in the language of publication. Despite the discourse on internationalization of research and the need to subscribe to major sets of journals sold by the big commercial publishers, we need to begin by pointing out the importance of national journals, especially in the social sciences and humanities (SSH). In the case of Francophone

universities in Québec, the most downloads occur through the platforms for journals in French (Érudit, Cairn and Revues.org). In short, for teaching (because students do the most downloading), the sets of journals sold by the major publishers are much less interesting. Worse: 40% of them are never even consulted. In order to put this portrait of research in Québec into perspective, a few comparisons are required. In France, Germany and Québec, respectively, where is SSH research published? German and French researchers still publish most of their work in their own national journals, but not the Québécois. The reason for this is that Québec journals are less well indexed, and in consequence it is less attractive to researchers to publish in them. This phenomenon is concomitant with Anglicization – seen by some as a form of internationalization – of national scholarly publishing, which has been visible since the 1980s. For example, in Germany and France, publications in the national language and indexed in the Web of Science went from 80% to 20%, while in Québec, more than 90% of articles published in SSH are in English. This higher proportion in Québec can be explained largely by the proximity of English, both within Québec and surrounding it.

In the specific case of national journals, we find that Anglicization is even stronger: the proportion of articles in English in national journals is constantly growing. In their own national journals, it is becoming increasingly common for Germans to publish in English, as is the case with the Québécois, who are choosing more and more to publish in bilingual or English-Canadian journals. The French are still resisting this phenomenon. Given that national French-language journals are of crucial importance for Québec universities, the Anglicization of scholarly publication seems to be counterproductive.

3. Deceleration of obsolescence

The third effect of digital technology is slower obsolescence of scholarly literature. Typically, an article in the natural sciences or medicine is cited more quickly and becomes obsolete more rapidly than in SSH and letters. However, contrary to popular belief, with the transition to digital technology, the lifespan of scholarly documents has become longer – older and older material is being cited – and this is true across all disciplines. More specifically, the average age of documents cited has gone from 11 to 13 years. This leads us to think that a 12-month embargo on scholarly articles will not make them obsolete, especially in the SSH.

How can we explain this effect of digital technology on publication obsolescence? One hypothesis is that digital technology provides access to more recent knowledge, but also to older knowledge, thanks to digitalization and indexing of older issues. The issues can then be found on Google Scholar, where they are frequently consulted. Work in history and sociology of science also suggests that scientific revolutions are occurring more slowly and, consequently, that older documents remain scientifically relevant.

4. Concentration of publishing

The concentration of scholarly publishing in the hands of a few players who then increase their prices as they wish is probably the most vexing effect of the transition to digital technology. In 1995, the Financial Times predicted that Elsevier and the like would be the “first victims” of the

democratization of the Internet: “The web had been created to bring academics together; now it offered them a way of sharing their research online for free. What need would anyone have for fusty, expensive journals?”¹ A decade later, we have to recognize that not only do researchers still depend on Elsevier, but above all that this firm’s control – and that of a handful of others – has increased. Indeed, in 2013, five organizations were controlling more than half of published articles: Elsevier, Wiley-Blackwell, Springer, Taylor & Francis, the American Chemical Society (for science and medicine) and Sage Publications (for SSH). Small publishers, faced with the need to take the digital turn and not always equipped to do so, are gradually being bought by the wealthier.

However, the situation varies from discipline to discipline. While in chemistry, virtually all publishing is controlled by these publishers, in physics, the weight of national learned societies and dissemination of articles through discipline-based repositories, such as arXiv, make commercial publishers much less powerful. Nonetheless, for “international” journals in social sciences, the professions and psychology, the picture is rather catastrophic: nearly 70% of articles are controlled by five major commercial publishers. Given the importance placed on publications in researcher evaluation, those publishers control not only the modes of research production and dissemination, but also the mechanisms by which researchers are assessed, which has allowed them to increase their subscription fees by almost 400% over the last 25 years and to maintain profit margins of 30-40%. All of this is in a context, it should be noted, in which universities have seen their funding reduced and the publishers pay neither the reviewers nor the authors of the articles they publish.

5. Open access

Open access dissemination is one of the major innovations made possible by digital technology. Today, on the international scale, more than one out of two articles is published in open access. The most commonly used means is the “green route,” in other words, self-archiving of the final version, before it is laid out by the journal. A smaller proportion of articles take the “golden route,” in other words, publication in completely open access journals, and by the “hybrid” route, which is that of journals that have subscription fees, but publish some articles in open access if the authors pay for that service. In developing countries, there is even less funding for research than in Québec – where we are nonetheless experiencing a crisis that is leading us to limit our subscriptions to certain major sets of journals; research in those countries can be based only on open access publications. We thus have the responsibility to choose open access so that research findings can be accessed by all of our colleagues in developing countries. The other argument regularly used in favour of open access publishing is the advantage in terms of citation of articles. When all forms of open access are taken together, articles published in open access have on average 24% more impact, while a publication disseminated through the green route has, on average, 41% more impact.

6. What roles are journals playing in the digital age?

This examination of the changes to scholarly publishing resulting from digital technology has to end by placing the roles traditionally ascribed to journals into perspective. Since the beginning of the digital era, dissemination of research findings, ensuring peer review, and archiving knowledge are no longer functions exclusive to scholarly journals. Peer review is increasingly open, and many are

1. Cookson, R. (2015). “Elsevier leads the business the internet could not kill,” Financial Times, November 15, 2015. <http://www.ft.com/intl/cms/s/0/93138f3e-87d6-11e5-90de-f44762bf9896.html>

questioning the present review system. For publication purposes, it would be possible to simply file articles on a web site without going through a journal. Finally, archiving can be done through institutional repositories or other web sites.

However, two journal functions remain essential. First, they are indispensable for federating intellectual communities: especially in SSH, journals make it possible to create veritable researcher ecosystems around local and national research topics, and to bring them together at specific conferences. Second, since research has become a creditocracy, scholarly journals are irreplaceable as vectors of symbolic capital. They are essential links in evaluation of researchers and researchers' work. Moreover, not all journals are equal in terms of symbolic capital. To begin with, English-language Canadian journals will have more value a priori and thus attract more submissions from foreign researchers than French-language Canadian journals, given that the English language is associated with greater "internationality." Next, highly specialized journals will have less symbolic capital simply because they concern topics on which fewer researchers are working. Moreover, journals published by major commercial publishers are automatically indexed in the large databases used in the various assessments, and therefore have greater symbolic value a priori – no matter what the quality of their editorial board. Finally, journals with longer histories and that are thus surrounded by a larger community, already have greater symbolic capital, which allows them to attract the highest quality contributions.

In conclusion, it is important to remember that, in order to be read and cited – and thus to maximize their symbolic value – journals have to be disseminated and accessible as broadly as possible. In this context, open access seems to be the path that should be taken by our national journals.

Study on an open access scholarly publishing cooperative

John Willinsky, founder and Director, Public Knowledge Project (PKP); Professor, Graduate School of Education, Stanford University.

Willinsky discussed the future of open access from the point of view of financial capital. The future of open access scholarly journals is a question of memory and heritage, but also of money, in terms of capital, of investment in scholarly publishing, which will neither necessarily make a profit in the near future nor generate a return comparable to the 30-40% profits made by major commercial publishers, though it has already begun producing benefits in terms of knowledge circulating in the public domain, not only on the local level, but also internationally.

1. Failures related to using a model of scholarly publishing inherited from biomedical sciences for the human and social sciences.

Scholarly publishing developed on the foundation of a very specific field, namely, that of biomedical science, which has very little in common with the human and social sciences, whether we are talking about the impact of a 12-month embargo, revision of articles or, first and foremost, the funding available. The economic future of scholarly publishing that we are in the process of building is dominated by the biomedical science model alone, and this produces inherent, integrated, innate,

a priori inequality that ensure that we will not have universal access to knowledge. In other words, speaking in economic terms, we will not have equitable distribution of the means of production. Instead, we need to begin by asserting the vital, indispensable nature of the human and social sciences, and take them as a point of departure in our reflection on the economic aspects of scholarly publishing.

The first problem with the green route for the human and social sciences is the loss of the value added by journals to articles. The green route, in other words, self-archiving of articles, designed for health sciences, leaves aside all the revision and re-writing that is the added value of scholarly publishing in the human sciences. For example, PLoS One does not revise articles that are submitted. It simply selects manuscripts, and that alone is the guarantee of their quality. Since no bibliographical standards are applied, that section of articles is very irregular.

2. The subscription system: problems and beliefs

Another problem with the green route is the 12-month embargo. Let us take an example from biomedical science itself. At Stanford University, to see whether research could be useful to an audience broader than that of researchers alone, we did an experiment on use of open access by doctors. We gave 350 doctors free access to the Stanford University library for 12 months. Two thirds of the participants did not use their access, but the third who did read on average one article per week. The articles those doctors consulted led them to change standards in their hospitals and create new policies, to verify and confirm that their practices were well-founded or, on the contrary, to question and then amend them. However, what we found most interesting was the age of the articles consulted. Half of the articles consulted had been published less than 12 months previously. This means that half of the articles could have been under the 12-month open access embargo. Thus, if we think that this two-track system is beneficial for the economics of knowledge because of the subscription income it brings in, we nonetheless have to realize that it is based on the (false) pretext that articles need to be exclusive and that it works by excluding certain readers.

Let us look at the issue of exclusiveness in another way. Is it important to the author, or for libraries and librarians? The University of British Columbia library considers itself to be a major provincial library: terminals are reserved for the general public so that everyone can use the collections. When they are arguing for funding for their institutions, it is not in librarians' interest for some scholarly articles to not be available to all of the audiences targeted by the library, in other words, researchers, doctors, lawyers, teachers and the general public. This is why it is not in our interest to continue with a subscription system. Even major publishers agree on this, which is what had led them to create a form of open access based on publication fees paid by authors.

This brings us to two forms of open access that would provide a way around the system of subscriptions to scholarly journals. Certainly, such subscriptions do provide a transfer of revenue, but both models of open access would provide perfectly equivalent transfers of revenue. The majority, if not the totality with only a few exceptions, of subscriptions are paid for by the libraries of educational institutions and not by individuals. The amount of money is enormous - \$10 billion. It is spent mainly on subscriptions to science, technology and medical journals, while journals in

the human sciences and letters have almost no impact on the total. In order to escape this system, this enormous amount of money could be invested in two forms of open access: (1) the author-pays model, based on an article processing charge (APC), or (2) the cooperation-based model.

3. Open access: the author-pays model

The author-pays model is the dominant one among commercial publishers. It is a common system for science, technology and medical journals, and its roots can be traced back to the page-fee publication system, which dates from the eighteenth century and lasted into the 1950s and 1960s for physics and astronomy journals. From the point of view of the human and social sciences, we can wonder how to distinguish it from the vanity press model. How can corruption be avoided in such a system? In any case, it is the dominant financial model at this point. For example, PloS One, which functions according to this principle, published 30,000 articles last year, at \$1350 per article, for total revenue of \$40 million. Of the authors, 10% came from developing countries and were exempted from paying the fees. This model works and is attractive to the five major commercial publishers, who could convert to it. By dividing their revenue by the number of libraries that pay fees, they have found that they could publish in open access with an APC of \$3000 per article. One of the advantages of the author-pays system is that it has established a degree of competition among scholarly journals by introducing a relationship between the price of an article and its quality, which is not the case under the subscription system. The APC model is a leading candidate for open access: it allows authors to retain ownership of copyright, it makes articles universally and immediately available, and it is simple. However, it has disadvantages: the fee exemption policy for authors from the developing world leads to some condescension; it results in financial penalties for the most productive authors, who will have to pay more APCs; and it will oblige the libraries of institutions to reserve funds for APCs so as to lighten professors' financial burden, which could penalize institutions where professors publish a lot. According to the logic of this system, the purpose would be to gradually transfer the money reserved for subscriptions into funding for APCs. However, the central problem remains the dependency on the monopoly of commercial publishers: we should anticipate annual augmentations of APCs similar to the increases that these publishers have imposed on libraries for subscriptions. Thus, the open access system based on APCs has advantages, but is in no way a sustainable solution.

4. Open access: the cooperative model

According to Willinsky, the cooperative model is the best. Since the 2000s, the degree of cooperation between scholarly publishing and libraries has been constantly growing owing to various projects; the PKP is one of them. Founded in 1998 at the University of British Columbia, the PKP has been working in a cooperative manner, thanks to grants and donations, to develop open access software, including Open Journal Systems, to meet the needs of scholarly journals. Today, more than 8600 journals around the world use that software, and most publish in open access. We should note the major role of Canadian libraries, which are collaborating in the initiative by providing hosting and web services to 3000 of these open access journals. We could mention other open access initiatives based on cooperation; there are many.

Now we need to take this cooperative model even further. In Québec, a province with an impressive

number of cooperatives, this project is especially meaningful. In the notion of “cooperative,” the idea of shared management of resources needs to be highlighted. We need to think about knowledge not as a good to be disseminated, but rather as common heritage. All of the players involved in scholarly publishing could be considered as members of a cooperative, from authors to the students entering revisions, and including university presses, and all of the money we spend on subscriptions could be paid to the cooperative. This means that a major scholarly publishing cooperative would have \$10 billion to distribute equitably among disciplines – for while health sciences need more money than the human sciences to do research, when what is in question is writing an article and disseminating it, all disciplines should be equal. The scholarly publishing cooperative would be an autonomous, democratic organization dedicated to increasing the quality of published research. Since open access is now obvious, what is really at stake is the quality of the open access archive that we are creating, the quality of the investment we are making in knowledge.

Among other things, the cooperative would allow us to achieve a level of transparency and accountability that is presently impossible with either the subscription or the APC system. At present, we need the patient research and data analysis work done by Vincent Larivière and his research chair in order to discover the trends and schemas underlying scholarly publishing, whereas in the cooperative model, the data would be directly available.

In Canada, the CRKN is a pioneer as a cooperative of libraries that was formed in order to purchase research findings as a collective. The fact that today, thanks to the partnership with Érudit, Canadian scholarly journals can sit down with the CRKN and form an independent organization dedicated to funding, development and innovation in scholarly publishing, as well as support for the creation of new journals within the framework of a cooperative structure, is a perfect example of what has been described as the second economic model for open access – but which should be the first in terms of the choice to be made.

5. Conclusion

In conclusion, the APC-based model, which is in fact the open access model used in biomedical science, is attractive, but it was forged thanks to the most well-endowed funding system in the world: the United States National Institute of Health, which has no equivalent anywhere else in the world, or in any other discipline. In contrast, other countries and other disciplines, in particular in Canada and Québec, are working on a collaborative, cooperative model in which we now need to involve all of the links in the scholarly publishing chain. At this time in Québec, Érudit functions like a cooperative of scholarly journals, but we now need to involve libraries in the discussion. The PKP has thus agreed to work in collaboration with Érudit and the CRKN to consider the membership of 300-400 Canadian scholarly journals in both languages in such a cooperative system. The partnership implies not only that the money spent on subscriptions would now be reinvested in open access, but also that the various stakeholders, journals and libraries would have to rethink in a cooperative manner the funding of scholarly journals so as to improve quality and distribution, and thus to establish real leadership with respect to sharing of knowledge. In this way, Canada will not only be able to disseminate the knowledge it produces, but ensure it circulates throughout the whole world, in an open, transparent way, while increasing quality. The question that now needs to be asked is:

can we all make a commitment today to such a cooperative undertaking so that the collaborative spirit, which has united us, spreads to all players in Canadian scholarly publishing? Can we ensure that the subscription system will be relegated to the rank of an artifact of the culture of the printed page?

Perspectives and experiences of scholarly journals: four concise presentations

The floor was given to four Canadian scholarly journals, which presented their activities, the challenges they were facing and their ideas for achieving their mission of dissemination of scholarly knowledge:

- Élisabeth Nardout-Lafarge, Director, *Études françaises* (Québec)
- Réal Allard, Director, Linguistic Minorities and Society (New Brunswick)
- Sarah McCabe, Librarian and Project Manager, Ontario History Journal (Ontario)
- Andrée-Anne Boisvert, Coordinator, Mosaïc (Manitoba)

1- *Études françaises*, Elisabeth Nardout-Lafarge

Études françaises is a journal that is now 52 years old and publishes 3 issues annually, for a total of around 25 articles per year. The journal focuses on criticism and the history of literature in the French language, from the Middle Ages to today. It is peer reviewed.

The journal is in the midst of a transition, with the lowering of the embargo from 2 years to 1. The editorial team is thinking about new policies to facilitate the journal's transition to digital form. This said, the journal is first published on paper at the Presses de l'Université de Montréal (PUM), and the editorial team would like to keep this format while remaining open to other forms of publication. Thus, authors are authorized to disseminate their articles through institutional repositories – although for the moment, the journal does not have a policy for verifying self-archiving practices. *Études françaises* has 341 subscriptions (of which 7 are individual): 164 paper subscriptions and 177 *Érudit* subscriptions.

Études françaises is in a difficult financial situation today: for the first time in its history, the FRQSC has not renewed its funding; only the SSHRC grant has been obtained, for \$30,000. The journal's funding has thus been cut in half. In order to deal with this, the editorial team has been able to count on support from the PUM, exceptional temporary support from the Université de Montréal's Faculty of Arts and Sciences, and temporary support from the Centre de recherche interuniversitaire sur la littérature et la culture québécoises. Despite everything, radical measures have been required:

- Drastic cuts, some of which have been salutary. Changes to operations with the PUM have been agreed upon to save \$5000;
- Increases in paper and *Érudit* subscription prices – although this is only temporary since the journal should become open access in the medium term;
- Establishment of an author fee when the article results from a funded project. This contribution to producing the issue is used to pay the rights for the illustration on the cover, translation of abstracts – even articles. However, this practice cannot be applied across the board without running the

risk of depriving the journal of contributions by young researchers, who do not yet receive much funding, and by researchers from abroad (since most foreign researchers are not funded as in Canada). The board of Études françaises has thus agreed that the financial contribution will not be a condition on publication.

At present, we are lacking \$10,000-\$15,000 for the journal to operate in a normal, serene manner. It cannot do without a managing editor at the PhD level (required to work on the texts published by Études françaises). Ideally, construction and updating of the journal's Internet site, as well as monitoring of developments in the field, should be done by a second research assistant. Finally, the funding has to cover releasing the Director of the journal from other duties, so that he or she has the time to ensure the journal functions smoothly.

While the measures that the funding bodies have taken to favour open access are perfectly justified – and have won the support of the board of Études françaises –, the work of publishing journals has to receive more support from universities, which depend on journals' work to acquire value. At present, that work is invisible to universities, and is considered a volunteer activity done on the side by professor-researchers.

In this context, the loss of the FRQSC funding has been a terrible blow because it has come at a time when the journal is having to negotiate its transition to digital media, change its mode of operations, and innovate, with all the tasks that involves (rehabilitating older issues, etc.). The board thus has to do much more with half as much money.

2. Linguistic Minorities and Society, Réal Allard

Linguistic Minorities and Society is a young journal that results from a partnership between institutes at the Université de Moncton and public bodies (the Canadian Institute for Research on Linguistic Minorities, the Canadian Institute for Research on Public Policy and Public Administration, the Consortium national de formation en santé, etc.). The journal publishes 2 issues per year, each of which contains 8-9 articles.

Publication is uniquely open access because the cost of paper publication is too high. Indeed, open access is an advantage in the context of linguistic minorities (French minorities outside Québec and English minorities in Québec). The rate of consultation on Érudit is encouraging for such a young journal. Open access also makes it possible for published articles to be consulted not only by the university community (students and professors), but also by bodies that make decisions concerning linguistic minorities and are interested in governance, health care services, language quality and language usage issues.

Linguistic Minorities and Society is experiencing the same problems as other journals with respect to funding: the journal has no subscription income, and its funding comes from partners, of which some have withdrawn (in particular, Canadian Heritage and the Office of the Commissioner of Official Languages). The board is therefore thinking about strategies to continue operating or even to survive, while having the feeling it is sharing a difficult, very uncertain environment, even though the

problems and possible solutions are interesting.

3. Ontario History Journal, Sarah McCabe

The Ontario Historical Society is a non-profit organization founded in Toronto in 1888. It is based on the voluntary participation of more than 400 historical societies, but counts on no government agency or university. The Ontario History Journal was founded in 1899, and has been publishing 2 issues a year for over a century. The articles are peer reviewed.

The journal has received funding from the Trillium Foundation to shift towards a digital model. Discussions are underway with Érudit and other platforms. The journal has special ties with some of its members. One of the challenges that it has to face if it adopts a digital model is copyright: how should the (several thousand) earlier issues be digitalized, what is in the public domain? The membership-based subscription system will also probably have to be revised.

A major concern of the journal's board is related to funding: the future is rather uncertain. While the journal has received grants from the SSHRC in the past, that source of funding is not sufficiently certain to be included in strategies for developing the journal.

4. Mosaic, Andrée-Anne Boisvert

Mosaic is a bilingual journal that has been published at the University of Manitoba since 1967. It receives funding from the Faculty of Arts, the Winnipeg Foundation and the SSHRC. The journal publishes 4 issues per year, with 10-12 peer-reviewed articles per issue.

Without the revenue generated by the aggregators (ProQuest, Project Muse), the journal could not exist. The paper version is disseminated in over 300 institutions and 23 countries – at a rate of 500 copies per issue, but the number of individual subscriptions is constantly dropping.

Mosaic's editorial board is especially opposed to open access, which is considered with great suspicion. The journal's copyright policies are quite strict – the contract prohibits publishing texts through institutional repositories and on personal sites. In conclusion, Mosaic is not yet ready to adopt a digital model.

Perspectives and experiences of university libraries

The floor was given to three Canadian university librarians, who described their institutions' activities and discussed the challenges raised by open access and digital publication:

Maureen Clapperton – Library of the École des hautes études commerciales (HEC) in Montréal

Martha Whitehead – Queen's University Library, Kingston

Leslie Weir – Libraries of the University of Ottawa

1. Library of HEC Montréal by Maureen Clapperton, Director

The library of HEC Montréal is medium-sized, with 28 employees and a budget of \$5.5 million,

including \$2.3 for acquisitions. Over the last 10 years, the HEC has maintained its acquisition budget (for both paper and digital documents) despite the budget reduction caused by the rise in the US dollar – which means that in reality there has been an increase in the acquisitions budget. Today, nearly 80% of the budget is spent on digital collections – whereas 10 years ago, there was not even a single digital document in the library’s collections.

With respect to open access, we can say that HEC Montréal “got off to a slow start,” but it has taken swift action since. It has created an institutional repository, taking into account the policies of funding bodies, which now require researchers to publish the findings of publicly funded research in open access. HEC Montréal had been studying the creation of such a repository since 2005, and a budget was almost allocated for the project in 2010, but finally did not become concrete until 2015. Given the vision of the school, which wants to continue distinguishing itself on the institutional scale as a major institution for research and knowledge transfer in all areas of management, HEC Montréal is favourable to open access, but not at the expense of excellence, prestige or the impact factor. Thus, the HEC’s 2015-2020 strategic plan for research and knowledge transfer does not mention the term open access – even though measures have been taken to create an institutional repository.

In order to meet the requirements of funding bodies and enable the library to position itself strategically in relation to open access, a number of projects have been set up. The library is working in collaboration with the Desjardins International Institute for Cooperatives on a virtual library project. A call for tenders has been made to find software for setting up an institutional repository beginning in March 2016. A partnership with the HEC Montréal Research Office has also been established. A new librarian specializing in metadata has been hired, while a librarian specializing in digital initiatives will soon join the team. Finally, the library will adopt a communications strategy to insist on the co-existence of two models, namely, open access collections and classical collections. In conclusion, yes, HEC Montréal is favourable to open access, but not at any price.

2. Queen’s University Library by Martha Whitehead, Vice-rector and University Librarian

Queen’s University is medium-sized, but has, in particular, a PhD program in medicine. As is the case in universities everywhere in Canada and Québec, the libraries at Queen’s have suffered especially severe budget cuts. Not only has its acquisitions budget been reduced, but its operating budget also. Above all, the library has endured a 30% cut in its team of librarians. This era of massive cuts to their budgets has led libraries to review their commitment to the print paradigm and to turn towards the new forms of digital publication.

During this same period of cuts, the share of the acquisitions budget reserved for subscriptions to the journals of the five major commercial publishers has had to be doubled in order to keep up with the increase in rates that they have imposed. This has required cutting the budget for monograph acquisitions in half. The constraints imposed by the five major publishers thus directly affect the libraries’ abilities to develop their collections, and thus to fulfil their mandates with respect to research and teaching. The situation is such that the libraries are forced to acquire items they do not really want at the expense of items that they would like to purchase. Given rising inflation and the drop in the value of the Canadian dollar, libraries have begun the fiscal year with

major deficits, which has forced them to adopt strategies to manage the shortfalls. They now have to be very prudent in their choice of subscriptions to scholarly journals. They also question the relevance of bibliographic databases when what really interests them is access to plain text. Finally, preference is now given to purchasing documents in electronic form rather than on paper owing to accessibility, acquisition costs, operations and space concerns: maintaining printed documents is now a problem. The new monograph acquisition plan stipulates that paper monographs are now purchased uniquely upon request from graduate students and professors. The objective is to reduce the deficit within four years.

In other words, the financial picture painted here is worrisome, but it is not exceptional. It is similar to what is happening in other university libraries in Canada. However, in addition to being a librarian at Queen's, Clapperton sits on the board of McGill-Queen's University Press, and she is pleased that the Press will be able to survive thanks to sales to the libraries of Queen's University and those in the CRKN: such sales provide the largest share of the Press' income. A balance is thus being maintained, despite everything.

Even before these budget cuts and financial difficulties, Queen's University libraries were acknowledging the advantages of digital publication and in particular open access through an overall strategy for documentary resources. Notably, the strategy involves open educational resources, the issue of complying with copyright for course collections, the hiring of a librarian for open government, the fact of considering research data as complementary to publications, and support for publications in their transition towards open access.

In 2014, a position intentionally entitled "scholarly publishing librarian," rather than "scholarly communications librarian," was created. The purpose has been to point out that the libraries are functioning within an ecosystem of scholarly publishing in transition from printed to digital documents, and from commercial publications to open access, an ecosystem that libraries have to both understand and influence.

This influence is deployed in accordance with three inter-related aspects:

- First, the libraries have to create an attractive infrastructure by hosting open access scholarly journals with the solutions developed by the Public Knowledge Project and Scholars Portal, through dissemination of research done at Queen's University thanks to filing in the institutional repository, by integrating the repository into professors' institutional CVs and into the system of annual reports in order to increase the number of documents filed, and by constantly reminding researchers that using the repository increases their visibility and improves access to their work.

- Second, the libraries have to communicate with one another in order to change an institutional culture turned against open access, and in which, for example, the belief persists that open access publishing is poor quality, and that it is too costly in terms of time and investment that should be devoted to research. In order to deal with this cultural challenge, a working group on scholarly publishing has been created, bringing together people from the university's research office as well as graduate students in order to answer the questions raised by open access and share relevant

practical information. The results of these actions are beginning to make themselves felt since we have seen an increase in the number of open access publications in accordance with the green route (self-archiving).

- Finally, although Queen's has not yet adopted an open access policy, it is the third sphere of influence targeted by the libraries. For this, it is maintaining constant dialogue around the advantages of open access to increase the impact factor. This dialogue is beginning to have an effect on researchers, and it will, the university hopes, also influence the discussion surrounding the hiring and promotion of professors, as well as book culture.

In conclusion, Queen's University's libraries are facing a difficult, long-term financial challenge, which places strong pressure on purchasing monographs and subscriptions to traditional journals, but they also have plans to invest more in open access publishing and dissemination. However, they are wondering about the relevance of funding an open access system that simply reproduces the traditional system of scholarly publishing: a more radical change is required. At the very moment when we are expressing this dream, it has been shown that the traditional publishing system is no longer viable and has to be abandoned. Scholarly publishing is thus ready to embark upon a transition towards another system that will take into account the real cost of publishing – and not the cost that has been artificially inflated by the five major publishers. We are thus impatient to work in collaboration within a partnership between librarians and publishers.

3. Libraries of the University of Ottawa by Leslie Weir, Head Librarian

The University of Ottawa is bilingual and has 43,000 students. Like Queen's, we have programs in medicine and law. In early December 2009, the university launched a major program for open access. The program was supported by Mona Nemer, Vice-Rector, Research, as well as a member of the Faculty of Law, Michael Geist; a member of the Faculty of Medicine, Claire Kendall; and finally Leslie Weir, Head Librarian. The program initially led to the creation of an institutional repository, a \$100,000 authors' fund (to pay article publication fees), and a position for a scholarly publications librarian. At the same time, open access publication of digital versions of monographs was set up jointly with the University of Ottawa Press. The program also instituted compulsory electronic filing of PhD theses. Regarding scholarly journals, an open access publication service was established with Open Journal Systems and Scholars Portal. Finally, 60,000 monographs in French in the public domain (published before 1923) were digitalized in collaboration with Internet Archive and the University of Toronto.

In 2011, the open-access monograph program entered into a partnership with the University of Ottawa Press. It makes it possible to publish an open access version of three monographs in the new acquisitions catalogue each year. The libraries contribute \$10,000 per monograph to this, for a total of \$30,000. After the end of the first 3-year phase of the project, the program was renewed and increased to cover a total of 4 monographs a year – with \$40,000 in financial participation from the libraries. The idea behind the program was to study what happens when a new monograph is published in open access at the same time as a for-purchase paper version in order to assess the

sustainability of such a program. Once the study has been completed, the findings will be published. However, the data that have already been gathered show that monographs available in open access have the benefits of greater visibility and distribution of a greater number of copies, even in terms of paper copies. These findings thus show that the program is a real success.

However, things did not go as well with the authors' fund created in 2009. Given an initial annual budget of \$100,000 in 2014, the fund required more than \$350,000. In September 2014, the fund had to be suspended because it had already been emptied, even though only 4 months had gone by since May 2014, the beginning of the fiscal year. It was decided that such a fund for supporting the open access model based on article publication fees was not financially sustainable: instead of reducing the costs arising from commercial content, it increased them.

The abandoned authors' fund was replaced by strategic membership in various open access initiatives, such as Plos One, BioMed Central, PeerJ, Knowledge Unlatched, the Érudit-CRKN partnership and Open Book Publishers. The libraries of the University of Ottawa are impatient to work in collaboration in accordance with a multiparty cooperation system because the present model for open access, based on article publication fees, does not work. Finally, there is no need for a reminder that the subscription-based model is no longer sustainable. The University of Toronto Library has just paid its bill to the publisher Elsevier: \$3.9 million. The traditional model of scholarly publishing is broken. It needs to be replaced.

Socio-economic study on Canadian scholarly journals: preliminary findings

Sibyl Frei and Louise Fleming, consultants

1 - Description of the project

Sibyl Frei and Louise Fleming, independent consultants, presented the preliminary findings from their study on the financial situation of Canadian scholarly journals, coordinated by Érudit in partnership with the Canadian Association of Learned Journals (CALJ) and the Canadian Federation for the Humanities and Social Sciences, and with financial support from the SSHRC. The consultants were undertaking a series of surveys and interviews with scholarly journals. The data began to be gathered in summer 2015, and involved a sample of 75 journals. So far, 29 interviews had been conducted, and others remained to be done. The final report of the study would be issued in early 2016. The findings presented at the seminar were thus partial and provisional.

The study was based on a corpus of 36 “French-language” and 39 “English-language” journals: the distinction was established in function of the language in which the journal completed the survey and not the language in which it publishes. Thus, it was to be noted that some of the journals are bilingual. In terms of disciplines, 62 social and human sciences, 8 science and technology, and 4 interdisciplinary journals (combining pure science, medicine and the social and human sciences) were being studied. The study focussed on both open access in accordance with the golden route (completely open access journals) and the green route (self-archiving of articles), but the findings for the green route would be available later.

2 - Description of statistics on journals' positions, in particular their financial situations

Some key findings:

- Non-profit organizations, universities and university presses publish 80% of Canadian scholarly journals, while 10% are commercialized for profit;
- the number of articles published on paper is dropping;
- the number of articles published in French is increasing;
- 25% of journals publish in immediate open access, and slightly more English-language than French-language journals do this;
- 25% of articles published in the last 3 years are not available in open access;
- when journals use embargo time limits, they are most often for 24 months, but 25% of journals in this group say they want to begin making their articles more accessible this year, a sign that the transition is already well underway;
- the Open Journal Systems is the platform used by 37 English-language journals;
- Érudit is the platform used by 54% of French-language journals;
- Aggregators for English-language open access journals provide greater financial support than do those for French-language open access journals: 11% of their revenue vs. 0%.;
- open access journals are more than 50% funded by government grants;
- English-language journals earmark an especially large part of their budgets for the salaries of the editorial teams (ND: translation costs are not included in the study). Logically, the higher the funding, the more it is redistributed in terms of salaries;
- all English-language journals are running deficits, while French-language journals are making small profits. Open access journals (no matter which language) are making slight profits. (NB: this preliminary finding was strongly disputed by the journal representatives in the room, who regretted that volunteer work was not encompassed in the study.)

3 - Presentation of the findings from the interviews with the journals

A request made during an interview was a perfect reflection of what journals are seeking: "Here is what we need: a stable economic model, more regular, predictable funding, user-friendly software, political support." Overall, the journals understand the government's decision to favour open access, but they fear that government and funding bodies will abandon them, tempted to leave the transition to open access up to the journals alone. Indeed, it is important to note that the journals would not exist without volunteer work: the study estimates that each journal counts on nearly \$30,000/year in volunteer work. However, this number is only an estimate – and these costs would not be considered in the findings presented in the study. Moreover, the journal representatives regret that funding bodies do not take the volunteer work done by members of the editorial team into account. They point out the major discrepancy between the criteria used by funding agencies to estimate the worth of their work (the same criteria seem to have been used in the study) and the functioning of and real costs shouldered by the journals.

The findings from the study show that English- and French-language journals have similar total revenue. Institutions provide little funding for the journals, which count mainly on grants (although each journal is a special case). Yet, institutional support is absolutely indispensable (if only for

contributions in kind).

The audience asked about the study's distinction between English- and French-language journals. The consultants answered that the choice had been made according to differences in terms of support from universities and the FRQSC, and whether the journal worked with Érudit or other platforms. Nonetheless, in response to publishers' requests, the findings would also be grouped according to discipline. Moreover, the publishers feared that the French-English divide would be superimposed, wrongly, on geographical considerations (Québec/Canada).

The interviews with the editorial teams revealed real concern about journals' dependency on government grants. The survival of unfunded journals is now very complex. The concern was also related to the policies of funding agencies, which are pushing journals towards open access. So far, more English-language journals have made the transition to open access, but more French-language journals are in the process of doing so. The publishers pointed out that open access does not mean "free access," and that funding bodies should be more aware of this.

The final report is expected at the beginning of 2016.

Érudit-CRKN (RCDR) partnership in support of scholarly journals and free access

Clare Appavoo, Executive Director, Canadian Research Knowledge Network (CRKN) and Tanja Niemann, Executive Director, Érudit.

Niemann and Appavoo presented an overview of the work completed and remaining in the framework of the CRKN-Érudit partnership. Whereas open access is constantly growing in importance, there is not yet consensus on the model or models to be developed, so Érudit and the CRKN have been wondering whether a collective, collaborative solution could be found to meet the needs of both university libraries and the publishers of scholarly journals. Indeed, in order to find means to fund open access publishing and dissemination in a sustainable manner, we need to move away from the commercial relationship characteristic of the subscription system to a partnership system based on voluntary contributions in which each stakeholder works to achieve shared objectives.

The change has involved the following process. Érudit provided detailed information on the current economic model and set an annual objective. The CRKN then established a voluntary minimum contribution, with a lower threshold for smaller institutions. The idea is that the contributions by institutions that have been paying for subscriptions until now should be for the amount of their subscriptions, while some wealthier institutions would be asked to contribute more. The planned transition phase is from September 2014 to December 2016. Finally, another major component is the reduction of the embargo on accessing articles and searching data from 24 to 12 months.

The partnership is also intended to support the Canadian and Québec research communities.

According to data obtained by Vincent Larivière, Canadian scholarly journals are used first and foremost to publish and nurture research done in Canada on local and national issues. Thus, what is in question is how to support this specific national ecosystem. When the first 2008-2014 licence agreement was signed between Érudit and the CRKN, the platform was considered in more or less the same way as major commercial publishers, and this overlooked the fact that there were constraints flowing from its specific vocation as an organization supporting small independent journals: limited commercialization potential, uncertain funding, dependency on subscription income. When the agreement was renewed, it was time to change the terms, and go from a commercial relationship to a partnership.

In order to make the partnership concrete, we first had to bring together the stakeholders in the scholarly industry in order to raise their awareness of the need to collaborate within a new model. We also had to strengthen the dialogue with funding agencies (the FRQSC, SSHRC, Canada Foundation for Innovation) and other partners (the CALJ, Canadian Association of Research Libraries, Canadian Federation for the Humanities and Social Sciences). Studies had to be conducted to gain a better understanding of the present context; we saw to studies on the financial situations of Canadian journals, article downloading and the effects of the embargo, researchers' use of collections, and the feasibility of cooperative scholarly publishing by PKP. The data deliver indicators that are indispensable for providing funding agencies with arguments in favour of the project. Finally, we also had to develop new technological tools to reduce Érudit's digital journal publication costs. In parallel, Érudit is in the process of revamping its governance structure so that the cooperative consortium can open to other Canadian universities. In order to bring its technological development projects to fruition, it is still working on a number of funding applications and on various strategic partnerships.

Many challenges arise out of the creation of a cooperative multiparty organization. First, transforming a commercial relationship into a partnership will lead librarians and publishers to reconcile their respective long-term strategic visions. Next, although Canada is a bilingual country, the majority of the universities that are members of the CRKN are purely English-speaking, which leads them to subscribe only to English-language journals. We will thus have to manage this imbalance when we transform subscription income into voluntary contributions. Finally, since Érudit and the CRKN are exploring a new form of agreement, success depends on the commitment and trust of each partner in the others. This partnership has already attracted the interest of a number of American learned societies owing to its innovative, collaborative nature; the Canadian experiment and the expertise we will acquire could thus, over time, inspire those involved in research and scholarly publishing elsewhere in the world.

In conclusion, the development of the partnership depends on maintaining open channels of communication among CRKN libraries, scholarly journals and Érudit. It also requires defining a new model that will come into play following the transition phase, which ends in 2016. We also have to continue including more Canadian research communities and content on the platform. Indeed, major institutional mobilization is underway because it is crucial to obtain the support of university faculties and administrations for the partnership – not just the support of libraries – in order to

have greater negotiating power when facing commercial publishers. Finally, the present agreements will be expanded to include other consortiums and partners outside Canada. The present CRKN-Érudit partnership, which Niemann and Appavoo presented at the seminar is thus the first stage of a far-reaching long-term project that will transform the face of research and scholarly publishing in Canada.

International initiatives: the Open Access Network project

Lisa Norberg, K|N Consultants

Lisa Norberg is a university librarian by trade. She works with the Open Access Network (OAN) initiative. In 2014, she and colleague Rebecca Kennison published a white paper proposing a scalable, sustainable economic model for open access in the social sciences and humanities. Gaining awareness of OAN initiative makes it possible to put discussions and ongoing projects on open access in Canada into perspective, and to see that we are not the only ones taking this path. Two major business models were described by John Willinsky a little earlier in the day. The model suggested by the OAN will soon also be studied by Willinsky's research group.

In light of the presentations at the seminar, it is clear that we need a sustainable business model that acknowledges the real costs involved in publishing, dissemination and archiving of scholarly writing. At present, archiving is an issue that is never discussed in the open access movement. For example, which library archives PloS One? No one. The business model we need has to serve the interests of all stakeholders in scholarly publishing, including researchers, publishers, university presses, the various reading audiences and the societies in which those stakeholders live. Finally, it has to be sustainable and able to evolve so has to be sensitive both to traditional formats and to the constant changes in forms of scholarly publishing.

OAN is a non-profit organization that leads a collective, inclusive, global effort to develop a sustainable, scalable solution for open access scholarly publishing in the humanities and social sciences. The rationale is that, for now, the system based on author fees may function for biomedical science, but this is far from the case in the human and social sciences. Norberg and her colleagues at OAN published a white paper to suggest an alternative solution, from the points of view of both publishers and librarians. Since the paper was published, their model has evolved, but not their working hypotheses, which are the following:

- We know that researchers publish in the most appropriate locations in accordance with their discipline and university requirements in terms of hiring and promotion. Although we hope that these requirements change, it has not yet happened. It is therefore important to meet researchers' present needs;

- Dissemination and archiving of scholarly publications are responsibilities incumbent first on universities and their libraries;

- The current open access model involving publication fees paid by authors is not applicable on a major scale because it is based on unit-cost (per article), and it is not sustainable over the long term. Moreover, while articles and books are units, this is not the case of multimodal projects in the humanities and social sciences, and other new forms of work that are difficult to quantify or are of

an evolving nature;

-Research is global, but support for research is local because each country, each institution, each community of researchers is specific.

All of these working hypotheses have been taken into account in the design of a business model for scholarly publishing.

The solution proposed by OAN is similar to the Érudit-CRKN partnership. First, an annual financial contribution would be requested from universities and university libraries. We know that the \$10 billion paid annually to the five major publishers² is available, but made inaccessible in the current circumstances. Just as the tenure and promotion requirements for professors and researchers will not change overnight, neither will library budgets. In major universities, however, there is some leeway, and librarians should immediately begin transforming the funds into investments in open access. In smaller universities, this will be more difficult. This is why, second, we have to encourage partnerships among the various stakeholders: learned societies, university presses, but also all the organizations that have related mandates, such as organizations that archive digital heritage. Finally, united in these partnerships, we will have to create an infrastructure and design best practices in order to develop and support an open, dynamic ecosystem of scholarly publishing.

The annual financial contribution per institution will be calculated with a view to solidarity and based on a sliding scale. However, since librarians and other key players are alarmed that the great number of requests for financial support are going to overwhelm them, funds already committed for other open access projects (such as Knowledge Unlatched, Open Library of Humanities, Érudit) will be subtracted from the contribution to OAN. The funding will be distributed via a platform that allows each institution to choose the publications and projects that it supports in line with its priorities, established according to various criteria: region, discipline, language of publication, type of format (open educational resource, monograph, article, publication platform, etc.). While the OAN requires full financial transparency between publishing partners, the amount of money required to fund individual publications and projects will not be made public. The choice of this level of partial transparency is required in order to respect disparities among publications, some of which pay all of the members of their editorial board while others depend on volunteer work. The situation in each discipline is also very different. Some journals earmark some of their funding to a learned society to support the holding of an annual conference. In short, there are reasons for the disparities, and would be up to the decision-makers from each member institution in the partnership to assess them in order to gradually bring all publications to more efficient management using realistic plans consistent with their mandates and specific situations.

In a way, OAN is suggesting a participatory funding model. In addition to regular financial support from institutions, the system will be open to additional sources of income. Independent researchers will be able to make a contribution in exchange for access to publications of their choice and a tax rebate for the donation. Other organizations, foundations and corporations will also be able to make contributions. Finally, publishers will be able to offer other services: on-demand printing, innovative digital services (for example, a greater variety of formats, such as is done on revues.org with its

2. There are five “major commercial publishers” with a monopoly over scholarly publishing: Elsevier, Wiley-Blackwell, Springer, Taylor & Francis and Thomson Reuters.

Freemium service).

The value proposition of this business model is undeniable for all stakeholders. From the points of view of the university libraries and institutions united in the consortium, it is a key component of their exclusive mission: the model will allow them to participate in the advancement of research and knowledge, reduce education costs and support lifelong learning by not cutting students off from access once they have finished their studies. For learned societies, university presses and other publishers, participation will ensure a stable source of income in order to maintain the quality of their publishing activities and support innovation. Finally, for other contributors (individuals, foundations, corporations), participation will deliver access to research and knowledge, nurture the economy, help to solve both local and international problems thanks to acquired knowledge and support education.

A major issue that has to be dealt with concerns free riders: stakeholders who do not want to make a financial contribution but who nonetheless benefit from open access. The idea is to establish the right incentives. With respect to faculties, the value of the contribution to open access needs to be acknowledged, for example, by assessing researchers in terms of their open access publications. Regarding libraries, much work remains to be done. When university libraries are ranked, account should be taken not only of the budget earmarked for collections, as is the case now, but also the budget earmarked for open access. From the point of view of university bodies in general, contributing to an economy based on sharing and the common good will allow them to demonstrate that their actions are aligned with their mission. Finally, funding agencies have to create incentives in terms of funding applications (as three Canadian agencies now do), and sanctions for failing to fulfill commitments.

In summary, OAN is proposing an incremental economic model, in other words, a model that takes the present situations and constraints of the various stakeholders as a point of departure, and gradually leads those stakeholders towards open access. OAN is a non-profit organization committed to a long-term, large-scale vision. The goal of the plan is to fund the entire infrastructure of scholarly publishing (including documents other than journals and monographs), production and archiving in order to ensure not only dissemination and inter-operability of scholarly knowledge, but also its permanence. Finally, it should be noted that the model proposed by OAN is designed to be complementary to other open access initiatives, and not to be in competition with them: it provides an economic model that will make it possible to fund the various existing publishing and dissemination projects. We are in constant discussion with the organizations that support these projects (including Public Knowledge Project, Knowledge Unlatched, Érudit) in order to pool our efforts and expertise. A new pilot version of the OAN funding platform is planned for the beginning of 2016. It will provide an opportunity to test the model and to make the adjustments necessary in order to have a functional platform later in 2016 that will provide stakeholders, in particular Érudit and the CRKN, with an additional source of sustainable funding.