Open Access: The Global Scene

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ABSTRACT
Significant achievements have been scored regarding Open Access (OA) and its worldwide adoption. The increasing numbers in the availability of OA repositories and journals (refereed and otherwise); publishers that embraced OA in different forms; universities and colleges that adopted OA as a matter of policy; and funding agencies that require authors and researchers to deposit their work in openly accessible digital repositories are all clear indications of the widespread adoption of OA practices. However, the practices are not well coordinated, largely project-based, and dictated by institutional circumstances. For the sake of disseminating and preserving scholarly publications and other forms of research outputs well into the future, it is critical that a consistent and uniform policy and technical framework that addresses the needs and concerns of all relevant stakeholders involved be adopted. Members of this panel will review the global OA practices and suggest ideas for the implementation of an international infrastructure that supports and sustains the future of open scholarly communication.

Sponsors
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Keywords
Open access, repository systems, OA policy, OA practices, university libraries, funding agencies, SIG III, SIG IFP.

INTRODUCTION
With the advent of the Internet and subsequent use by the general public, scholarly communication has entered a new era, one marked by openness, sharing, and collaboration. The importance and potential benefits of open access in regard to the extended access and visibility of scholarly publications, the increased research impact, the diffusion of knowledge around the globe, a greater international collaboration of scientists, and an intercultural dialogue have been widely acknowledged (Borgman, 2007; Swan, 2012; Young, 2009). The authors of the Budapest Open Access Initiative (2002) point out the societal benefits and the role of open access in creating equitable opportunities for scholars worldwide. Two primary approaches to providing open access to scholarly publications have evolved: open access repositories that involve self-archiving (so called green route) and open access journals (gold route) (Laakso & Björk, 2012; Suber, 2010).

The exponential growth of OA journals and articles is very well documented in a study that investigated OA publishing development from 1993 to 2009 (Laakso, Wellin, Bukvova, Nyman, Björk, & Hedlund, 2011). This development is a clear indication that OA activities have progressed from a period of experimentation to that of maturation. In just the last decade, after the three major declarations and initiatives that are commonly referred to as the “BBB” (Budapest Open Access Initiative, 2002; Bethesda Statement on Open Access Publishing, 2003; Berlin Declaration on Open Access to Knowledge in the Sciences and Humanities, 2003; ) came into existence, open access gained momentum. We now have: (1) about 8940 OA journals listed by the directory of open access journals (DOAJ) and the global serials directory by ULIRICHs consists of 12,747 active academic and scholarly OA journals; (2) out of 1232 publishers registered in RoMEO (Rights Metadata for Open Archiving) database, 848 (69%) allow some kind of self-archiving by authors; (3) there are 2271 repositories hosted by 1,902 organizations globally (OpenDOAR); (4) according to the Coalition of Open Access Policy Institutions (COAPI), the number of universities (or select colleges within the universities) and research centers in North America that embrace open access policies stand at 56; (5) according to
SHERPA/JULIET, a database that tracks research funders’ archiving mandates, about half of the 123 funding agencies in its list (62 to be exact) have OA publishing policy; and finally (6) Creative Commons, since its founding in 2001, have become a global copyright license tool for authors to grant users barrier-free access to their scholarly output (Creative Commons).

Despite significant achievements and milestones, there are not consistent and/or structured practices at an international level. Some countries, like UK and Australia have adopted mandatory policies requiring scholars at the major research institutions to deposit their publications in open access repositories (Swan, 2012). There is a strong support for open access in Europe with the European Commission planning to make open access to scientific publications a general principle of Horizon 2020, the EU’s Research & Innovation funding program for 2014-2020. The developments in other countries, however, tend to lack the centralized approach and vary in the levels of open access. Initiatives in developing countries such as Scholarly Communication in Africa Program (SCAP - http://www.scaprogramme.org.za/), Bioline International (http://www.bioline.org.br/), the many works of Leslie Chan (2011) all follow a similar pattern in that they are either university-based projects or not-for-profit initiatives.

Most of the initiatives and developments surrounding OA are scattered, largely operating with project funded dollars. With several stakeholders having a vested interest in the scholarly communication supply-chain system, the distribution of roles between and among the actors involved is not clear. For example, the role of university libraries which, in the first place, signaled the alarm that came to be known as ‘serials crisis’ due to sky-rocketing subscription prices, an out of control 5-15% per year, is not straightforward as it may appear, especially when it comes to collection development activities. Not all publishers have equally embraced OA policy. Although several studies have shown that OA journals increase visibility, use, and citation advantage (Eysenbach, 2006; Hajjem, Harnad, & Gingras, 2005), the perception of faculty and researchers is not yet upbeat due to concerns about the prestige of OA journals and tenure and promotion decisions (Xia, 2010). To the contrary, objective measures such as eigenfactor (EF) scores and article influence (AI) scores, methods that rank journals and article influence, highly rank PLOS Biology – EF (0.149589) and AI (7.8352) (University of Washington, 2012).

Advocates of OA vigorously argue that open access allows rapid and wide dissemination of scientific knowledge thereby resulting in increased use and impact (Gargouri et al., 2010). On the other end, there are also few studies that suggest the absence of any connection between use/impact and open access to scientific knowledge. Using bibliometrics and citation analysis methods, the critics try to show the lack of citation advantage to OA often termed as “citation impact differentials” (Craig, Plume, McVeigh, Pringle, & Amin, 2007; Moed, 2010). According to Swan (2010), a study that reviewed 31 studies on OA citation advantage, the verdict seems to be obvious in that only four studies found no OA citation advantage (or OA citation disadvantage).

Although there are different classifications of approaches to OA publishing (Bernius, Hanauke, König, & Dugall, 2009), it appears all concerned stakeholders are looking for a scholarly communication supply-chain system that works for everyone involved – authors/researchers, publishers (including university presses), libraries (primarily academic), learned societies, and funding agencies. Because of divergent needs and goals between these actors, so far there is not one single policy and technical framework to follow for the sake of creating a structured and consistent model that will be embraced by all at an international level. Existing practices and policies based on individual institutional context and enabling environment may pose sustainability issues in the long run. For example, Johns Hopkins University, through its OA promotion fund, reimburses authors a maximum of $3000 per article if they publish in OA journals that assess article-processing charges (APCs) (Sheridan Libraries, 2013). It is not clear if this is a common practice across academic institutions, even when OA is adopted as a matter of policy. However, academic libraries increasingly play active role to provide services to support the creation, organization, management, use, and reuse of digital scholarship.

Leading public and private universities such as Harvard, MIT, Georgia Tech, and Stanford, and major funding agencies such as NIH and Wellcome Trust have all embraced open access. As a matter of policy, these universities (and/or individual colleges therein) have either mandatory or voluntary or both options for faculty and researchers to deposit their scholarly output in their respective institutional repositories. Equally, funding agencies require and/or encourage researchers to deposit their work in open repository systems (such as PubMed Central by NIH; and Europe PubMed Central by Wellcome Trust) if the publication results from funds received by respective funding agencies. Of course such self-archiving processes are not always automatic. Authors and institutions have to comply with publishers’ post-publication embargo before the full-text of the work is made publicly available, a length of period that spans from 6 to 12 months generally, as documented in SHERPA/RoMEO (University of Nottingham, 2013).

According to Scopus at-a-glance (November 2012), there are 19,500 peer-reviewed journals (including 1,900 Open Access journals). In addition, search results from the comprehensive global serials directory, ULRICHSWEB, using search criteria - Status:("Active") Serial Type:("Journal") Content Type:("Academic / Scholarly") results in the list compiled in Table 1 (Serials Solutions, 2013). According to the data in Table 1, the peer-reviewed/refereed and OA journals account for about
12.8% of the total peer-reviewed journals globally. This is one indication that despite a certain level of maturity, OA is still a work in progress.

Open access is not yet embraced for its own merit as a model to scholarly communication. Institutional mandates to OA as the preferred route to scholarly communication have opt-in or opt-out options. So far, the practice is influenced by two parties that stand at two opposite ends—one that has public good motives and believes access to knowledge is key to creativity and innovation—and the other party driven largely by commercial interest.

<table>
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<tr>
<th>Africa</th>
<th>714</th>
<th>237</th>
<th>114</th>
<th>488</th>
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<tr>
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<td>1,478</td>
<td>8,472</td>
<td>20,517</td>
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<td>2,717</td>
<td>16,087</td>
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<tr>
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<td>2,231</td>
</tr>
<tr>
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<td>2,800</td>
<td>2,065</td>
<td>11,961</td>
<td>28,864</td>
</tr>
<tr>
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<td>1,272</td>
<td>2,253</td>
<td>804</td>
<td>1,831</td>
<td>4,260</td>
</tr>
</tbody>
</table>

Table 1. Global Active academic and scholarly journals – refereed and open access

ISSUES TO BE DISCUSSED

Much work remains to be done to embrace OA on its own merit. Building a scholarly research communication model that serves well into the future, in the manner the print journal did for over 300 years, is the challenge we face today. What did not work for the print journal is known and that is one of two things – speed of research dissemination and cost. While online availability of OA peer-reviewed journals overcomes the challenge of speed of access, it may not overcome the cost issue unless all stakeholders find a working formula. Now, the research community finds itself at a crossroads. On the one hand, a belief driven by public good motive to allow barrier-free access to knowledge so as to accelerate creativity and innovation—and on the other hand, a principle driven largely by commercial interest.

In view of the discussions above, panel members will focus their presentations on three interrelated areas: (1) policy framework needed to support a new scholarly communication model at a global level; (b) the interplay between funding agencies, university libraries and researchers; and (3) the technological infrastructure needed to support a global interoperable distributed repository system. By focusing around these three core areas, panelists present discussion points and invite the audience to further explore the following specific questions:

- How can we foster an enabling environment for OA on a global scale?
- What factors and players can contribute to the promotion of OA and the development of the policy framework on the international level?
- Can publishers be restricted to publishing, distribution, and selling, or can they play additional roles?
- What is the role of the academic library vis-à-vis long-term preservation and stewardship of scholarly outputs?
- What is the interplay between open access and subscriptions licenses for university libraries?
- Can academic libraries divert a portion of their collection development budgets to creating and maintaining repository systems on regular basis?
- What kind of technological infrastructure is required to support and sustain a global interoperable OA system?
- How can university libraries, funding agencies, and researchers work closely to achieve structured scholarly communication system?

PANELISTS

Dr. Sam Hastings (Moderator)

Dr. Sam Hastings is Director and Professor of the School of Library and Information Science at the University of South Carolina. Dr. Sam served as president of ASIS&T and is currently editor of ASIS&T monograph series.

Dr. Shimelis Assefa is Assistant Professor in the Library and Information Science program at the University of Denver. His research interests include scholarly communication and measurement of knowledge production; value creation and organization-wide information systems, learning technologies, and health informatics. He will discuss the technological infrastructure needed to support and sustain a global, interoperable repository system.

Dr. Abebe Rorissa is Associate Professor in the Department of Information Studies at the University at Albany, State University of New York (SUNY). His research focuses on multimedia information organization and retrieval, measurement and scaling of users’ information needs and their perceptions of multimedia information sources and services, and use/acceptance/adoptions and impact of information and communication technologies (ICTs). He will discuss the policy framework that addresses the needs and concerns of relevant stakeholders so as to create a scholarly communication model that works for all.

Dr. Krystyna Matusiak is Assistant Professor at the School of Library and Information Science, University of Denver. Her research interests include the development and evaluation of digital libraries, scholarly information practices, and international librarianship. She will address
international approaches to open access and the policy framework.

Dr. Daniel Gelaw Alemneh is the Digital Curation coordinator for Digital Libraries at the University of North Texas Libraries. Recognizing the fact that OA is an ongoing activity, the University of North Texas, an advocate for OA, has created a symposium series intended as a catalyst to move academic institutions forward in consideration of institutional open access policies (http://openaccess.unt.edu/content/symposia). Dr. Daniel will examine a number of issues which are important to the development and adoption of open access, including public access, permanent availability, and intellectual property rights. This has particularly important implications for researchers in the developing world, where access to digital content is further challenged due to a lack of technological infrastructure.

Kris Helge is the Scholarly Communications Librarian at the University of North Texas. He earned a J.D from the South Texas College of Law, a M.S in Library Science from the University of North Texas, a B.A from Baylor University, and is a Ph.D. student studying Information Science at the University of North Texas. He will discuss the new 4.0 Creative Commons licenses, their benefits, how to create them; and various legal pitfalls.

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