Open Science: Models to Expand Open Access Beyond Scholarly Journals

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In February 2016, Robin Champieux, Scholarly Communication Librarian at Oregon Health & Science University (OHSU) and Heather Coates, Digital Scholarship & Data Management Librarian at Indiana University Purdue University-Indianapolis (IUPUI) co-presented a webinar for Electronic Resources & Libraries on Open Science. The webinar was supported by SAGE Publications.

Open science initiatives are developed to make the products of academic research readily accessible and reusable to everyone. These practices expand beyond just open publication of content to include open peer-review and the open notebook approach, in which the entire research process is made readily available in advance of a project’s completion. Given the complexity of the scholarly ecosystem, the open presentation of a project from its onset to its completion helps to bring transparency to a very complicated process at most institutions of higher learning.

Heather Coates began her presentation by depicting different lifecycles and rubrics that represent how open science practices can be incorporated into the research process. She spoke about recent research on the research (meta-research) process, which has given us greater insights into the research practices and attitudes towards the drivers and incentives for changing such practices. Heather pointed out that open science is a means to an end, not an end in itself. The open science movement ultimately aims to insure the integrity of the scholarly record while enabling translation and application of research to address global challenges. Given any project, there are levels of openness that can be achieved and these levels are often discipline specific.

Openness can be achieved through the immediate sharing of experiment and research notebooks, through shared scientific workflows and data provenance, through the use of open source tools, the use of standards for ready data sharing in a machine readable way, by providing reproducibility guidelines & meta-research on irreproducibility, through the use of open peer-review and the utilization of open research evaluation data and guidelines. These forms of openness result in the expansion of the scholarly record to include funding proposals, data management plans, study registrations, conference material from presentations, panels, posters, and into blog posts, social media conversations and through the use of unique identifiers. A few examples of this work were given such as Open Source Malaria (OSM) [http://opensourcemalaria.org/] where a readily available lab notebook is presented along with a project wiki and 3-D molecule database. Another example given was the NIH’s Alzheimer’s drug discovery Big Data portal [http://www.nih.gov/news-events/news-releases/nih-led-effort-launches-big-data-portal-alzheimers-drug-discovery] to develop new treatments and therapies.

Robin Champieux focused on initiatives underway at Oregon Health & Science University including the building of communities, adding value and advocating for openness through research data management services and tools, and incentivizing openness to help change the narrative and system of scholarly contribution. The OHSU Library developed a collaboration with students to host a yearlong series of open science and data science talks and workshops, and sent two OHSU students to OpenCon. The project is funded by NLM/NIH and is student driven.

continued on page 2
Open Science — from page 1

The library has benefited by learning about researcher motivations and where specific pain points occur during the research process, and from this collaboration, new champions of library services have been created. With their work around research data, OHSU librarians have facilitated the development of skills and tools that influence more open data practices, meet funder mandates, and help fill service and educational gaps in the organization at large. The OHSU library is focused on building the infrastructure needed so the students and researchers can focus on the research process. Through the creation of an OHSU publications dashboard, and the Library’s participation in the Resource Identification Initiative and scholarly contribution projects, OHSU librarians and staff are helping to highlight published research, increase transparency, and recognize more diverse kinds of research contributions.

Both Heather and Robin outlined new roles for librarians and libraries to play with helping to advance local research and expand the reach of local research beyond their immediate environments. Through the analysis of the research lifecycle and process, librarians are finding ways to better serve their local communities and finding meaningful ways to have relevant conversations with students, faculty, and researchers within their processes. By indicating areas where these processes can be opened up and brought to a larger audience, science and research moves beyond ivy-covered walls and into the world in exciting and novel ways.

Mark Your Calendars


Check It Out

The 18th Fiesole Retreat was held April 6-8, 2016, in beautiful Fiesole, Italy. Attendees and speakers representing Australia, Austria, Germany, France, Japan, The Netherlands, Qatar, Sweden, Switzerland, the U.S. and the UK, as well as host country Italy, enjoyed perfect spring weather and a series of stimulating talks and discussions as well as the extraordinary hospitality of local hosts Casalini Libri and the European University Institute (EUI).

Four sessions tackled “The E-Book Elephant” in Scholarly Publishing with an emphasis on new models and new strategies, “How Can We Find What We Need” through the use of discovery tools and application of standards, “Managing and Measuring Reputation” for scholars in particular who are increasingly dependent on social media and other measures, and finally, “Building Blocks for New Business Models,” which focused on topics including the Freemium model in use for scholars in particular who are increasingly dependent on social media and other measures, and finally, “Building Blocks for New Business Models,” which focused on topics including the Freemium model in use at OECD, Alexander Street Press and elsewhere.

Roland “Roly” Keating, CEO of the British Library served as Opening Keynote speaker, offering an impressive overview of the BL’s efforts to both preserve information and to reach new audiences. David Worlock, Digital Information Services Strategist and Co-Chair of Outsell’s Leadership Councils, closed the meeting with a series of challenges, asking all those at the Retreat to create “new words” for what we do.

Slides from the meeting are now available at the official Fiesole Retreat Repository. Log on to read more at http://libraries.casalini.it/retreat/retreat_2016.html.
When Rebecca Lenzini asked me to write this article about my experience at the ER&L Conference (Austin, 3-6 April 2016) we were sitting at a restaurant table in Fiesole, dipping Tuscan almond biscuits in a glass of Vin Santo, just minutes after the end of the last session of the 18th Fiesole Retreat (http://libraries.casalini.it/retreat/retreat_2016.html), which I was able to attend since I got back from Austin just in time to see the last day of presentations, and indeed they were extremely interesting and thought provoking ones. So, while so many “impressions” from the Austin conference were still resonating in my mind, new ones had just been added to the picture. I used that word deliberately, because that’s what I’m going to talk about in this article. My piece is not going to be a “grocery list” of presentations, market data, statistics, panel discussions. I’d rather concentrate on trying to depict “my ER&L” more by evoking subjective impressions than by recreating an objective reality. And though I had plenty of them, I’m going to just speak about 5, well described by keywords:

#collaboration; #empathy; #evolution; #quality; #discoverability.

I should start by saying that I attended the ER&L conference as a vendor (we had our table at the Exhibit room, alongside with many other publishers/vendors from many different countries) and also as a person interested in learning something new about the world where I live and work. My experience as a Sales Representative at Casalini Libri puts me in a very privileged position: Casalini has always been at the forefront of library services’ innovation and has also been involved in all aspects of the publishing industry for the past 60 years, from cataloguing to collection development services, from journals subscriptions to e-resources.

**Collaboration** — One of my strongest impressions was about the need of a higher degree of collaboration between all the stakeholders, publishers, aggregators, vendors, librarians. Many presentations were about collaboration, on the metadata dissemination, on the automated e-book and e-journal holdings management and on all the tools and technologies that can help streamline and simplify the workflows in libraries and therefore help to improve the user experience and the research. I found the true spirit of the conference was about finding solutions together, in a constructive and not ideological way, made possible by the right mix of all the players involved, with attendees from 22 countries and 6 continents. My kudos to Bonnie and Sandy Tijerina and all the ER&L staff for making this event possible, every year.

**Empathy** — Another very compelling topic was about the User Experience (UX) and the ways content providers can help improving it. I found the presentation by Diana Peterson, continued on page 4
TCR Reports from the Field — from page 3

Director of PM, Ebooks, ProQuest a very interesting example of how a vendor can drastically improve the user experience by conducting serious usability studies and redesigning their platform accordingly. If it’s true that we all (well, most of us) can recognize bad design, it’s also true that it’s not always so clear what’s required to get it right. As summarized by Hasso Plattner, Institute of Design at Stanford, “empathy for the people you are designing for and feedback from these users is fundamental to good design.” The final outcome of the usability study conducted by ProQuest was a redesign of their e-book platform in a way that we could summarize with just three words “less-is-more.” Users want clean, simple, uncluttered design, with no inessential elements that can distract their attention from the critical connection they have with their research.

Evolution — The e-book era begun many years ago, continues to evolve and largely lacks standardized business and use models. There’s been a proliferation of business, pricing and licensing models, and so far we’re at a point where publishers, libraries and users alike are still struggling to find a satisfactory way of handling these increasingly essential materials. Evolution is by definition an endless process but I think the initiatives aiming to set some “minimum requirements” about licensing, scholarly communication, positive user experience, standards for product packages and sustainable and fair business models could be a good (re-)starting point. Just to name two of those mentioned at the ER&L Conference I would cite the E-Book Value Statement by UCLA (http://www.library.ucla.edu/about/collections/collection-development-initiatives/e-book-value-statement) or the Principles for Permanent Acquisition of eBooks for Academic Libraries, by UNC Charlotte (https://www.dropbox.com/sh/0zumwxcjijc7k3jm/AADCLqwtSPk_Fmew9mUFgxzPta/S05%20-%20Charlotte%20Initiative.pptx?dl=0).

Quality and Discoverability — Last but not least, a great deal of attention was paid to metadata and their quality, the ways libraries can manage, quality control and use them. Quality and consistency of the metadata is also central to our (Casalini’s) objectives. As an aggregator of e-resources published in Romance Languages and (mostly) in the Humanities and Social Sciences, we invest a lot of time and resources to ensure our metadata meet the highest quality standards and have the widest visibility possible, globally. MARC records for all titles included in the Casalini e-content Collections are automatically sent to a variety of discovery services and link resolvers. What a good quality metadata production and dissemination is all about is “discoverability”: as a matter of fact, the harder the information is to find, the less relevant it becomes, and for “minor” languages such as Italian, Spanish and Portuguese that’s a risk we can’t afford. Making our content highly discoverable is truly crucial, especially in these times when the Humanities and Social Sciences are seeing diminished funding in many Universities worldwide thus resulting in a possible (and dangerous) marginalization.

For those who need a full and detailed coverage of the ER&L conference, thanks to the impeccable organization by Bonnie and Sandy Tijerina, most of the presentations are already available for download (https://www.electroniclibrarian.org/2016presentation-files/).

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