OpenCon2014 in Washington DC, November 2014. Early Career Researchers and Open Access Advocacy

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At Rutgers University, a new open-access policy will go into effect as of September 2015. As part of the rollout, Rutgers University Libraries are investigating ways to use this opportunity to educate students, faculty and staff about the many facets of open access. Further, new services are being considered to help faculty deposit their scholarship in our community repository (RUcore). This was the primary reason that involved me attending OpenCon 2014.

Patrick Brown opened the conference with a brief history of how he ultimately co-founded the Public Library of Science (PLoS). His speech was largely motivational in nature to provide the attendees with first-hand experience from a successful open-access campaign, one that has become transformational in the open-access community. It was a good start to the conference, even though he glossed over the more nuanced developmental points of the robust service they now offer. He strongly advised tenacity and cohesion in the face of traditional publishing models. He concluded by inferring that the state of current open-access foundations is thoroughly developed enough now so that the upcoming generation of scholars can and should demand more of publishing models and information accessibility.

This was followed by a panel about the current state of open access in the USA, the European Union and in transitional and developing countries, of open research data and of open educational resources. Each presenter was well-selected and imparted a good bit of context to topics that would be continually built upon throughout the conference. Each topic is quite distinct, although they share similar utilitarian goals. It seems likely that the interplay between these branches will be important in ongoing initiatives across the open-access movement. As education on these topics is still somewhat nascent, clarifying the differences between each aspect of openness as well as emphasizing their similarities was an important takeaway from this introductory panel.

Victoria Stodden, Associate Professor in the Graduate School of Library and Information Sciences at the University of Illinois at Urbana-Champaign, then expanded on the importance of open access and open data in creating reproducibility in research. She emphasized the problem of scholarly accountability/reproducibility, given the current state of traditional publishing models and the peer-review system. She argued for a more robust model of sharing, that includes the details of data sets, script writing and other pertinent academic contributions so that scholars can fact-check each other and become more efficient as a community. One student, a materials science graduate, offered a relevant example of having to retrace the steps of ceramics research from the mid-twentieth century due to the lack of information available to him to reproduce their results. While it was apparent that many of the attending graduate students in the sciences were well-versed in such problems and the technologies available to them that enabled the sharing they desired, I took away that the majority of librarians in attendance were somewhat behind on such technologies.

This was followed by a workshop on text and data mining that was completely over my head from a technical standpoint. Apparently, the United Kingdom recently passed a law that states that is within the right of the public to harvest (or mine) data, although the lines between legal and illegal still seem somewhat blurry. Two scholars were demonstrating a community-sourced method of aggregated searching (contentmine.org), which is currently in beta. In my best attempt to summarize, the team currently working on this project is contacting similarly minded researchers to create tailored scripts that aggregate search terms most relevant to the specific scholarly community's research interests they represent. From there, the search aggregator developed by contentmine.org will mine the content of large swaths of openly accessible research data that they have deemed worthy of incorporating within their systems' search algorithm. As researchers become more familiar with their service and the way in which to write these scripts, they hope to reach a critical mass of sorts. Compounded by their belief that openly accessible data sets will see exponential increases in the near future, they are of the opinion that this could be a transformative research tool moving forward.

The next panel focused on innovative publishing models. I think the big takeaway from this panel was the exponential increase in open-access platforms since 2003 and the respective evolution of academic publishing. Many were in agreement that privately owned publishers still have much to offer the academic community. However, the publishers present agreed that the unsustainable fees of current traditional publishing models are unnecessary to provide the types of tools

and services to make things more efficient and easier. PeerJ, for instance, offers an entirely new business model based around individuals and is a very forward-thinking attempt at publishing, albeit nascent. There is an optional built-in peer-review system that creates "reputation" points within your disciplines for articles reviewed. It also offers a pre-print server to make scholars works openly accessible (via the Creative Commons CC-BY license) if the authors or their institutions don't have the means to do so. Their basic plan is $99/one publication a year *for life*, $199/two publications a year *for life* or $299 for unlimited publications a year *for life*. These fees are very nominal for the service they are providing, especially considering their one-time nature. Open Library of Humanities (OLH) is in the midst of something very different, albeit equally as cost-efficient. They are currently in the process of attempting to collectively fund a megajournal for the humanities. In his presentation, the co-founder speculated that if the number of annual commitments from libraries themselves reached in the hundreds and spent less than $1,000 each, the OLH platform could see cost savings of up to $12/article. These were just a few examples presented, along with other interesting metrics that the publishing houses are seeking to measure impact, etc.

The following panel focused on the impact of open from various perspectives. I thought that Daniel DeMarte, Vice President for Academic Affairs at Tidewater Community College, was the most thought-provoking. They are currently running a pilot degree program that solely uses open educational resources. Entering its third semester, the college is pulling some interesting statistics across the program. One is that students are just as satisfied or more satisfied taking coursework using solely open educational resources. He extrapolated that this may be due to more tailored coursework that feels less inhibited to strictly follow or heavily use textbooks due to their high purchase cost. Further, they pulled sales figures from their college bookstore and compared them against the amount of sales being purchased with credit. They found that a shocking 60 per cent of their approximately $12 million annual sales were being bought with long-term credit instruments like student loans. These offsets offer real cost savings opportunities for low-income individuals and families pursuing degrees in higher education. Interestingly, programs are cropping up at a state-wide level, like Washington (state), that are funding the creation of open educational resources for elementary, secondary and introductory collegiate coursework. As many educators are funded by state and local governments, it would make sense to see the continual development of open educational resources rather than the bulk textbook spending being done at public schools and colleges nationwide, especially if student debt can be reduced in the process.

The day concluded with a keynote by John Wilbanks, Chief Commons Officer at Sage BioNetworks. He spoke to the notion of open access as if addressing a neo-conservative economist or politician. Simply, reusable content is more valuable to the end-user than non-reusable content, where open versions creates more value than closed ones. Publishers and scholars need to change their practices if we are to think in terms of value creation and end-user satisfaction. This spoke back to Victoria Stodden's presentation on reusability and recreation, in which code sharing and community is a prerequisite of such value creation in economic terms. Not only does the publishing and scholarly community need to adapt to such a mentality, but systems/platforms need to be constructed that enable such activity and prioritize the user. Above all this, the relevant parties need to do a better job at explaining the necessity for these constructs with respect to the preexisting social, moral, scientific and economic terminologies.

Audrey Watters opened the second morning of OpenCon 2014. She also played the role of a motivational speaker, but I found her message to be a bit underwhelming. Basically, she discussed the variety of meanings that the term open can be used for, within the open-access community. It was a bit too semantic for me personally, but I certainly agreed with her main theme; that is:

- that the proponents for all those separate meanings of "open(ness)" must do a better job at creating a unified front and not let slight differences in distinct disciplinary communities divide us;
- that the factors against the open movement are well-funded, institutionalized and imposing; and
- that we will all need to rely on each other to make the strides necessary to create a more equitable environment for researchers, educators, students, etc.

Erin McKiernan spoke next about being committed to the open movement as an early career researcher, largely by avoiding publishing in fee-based journals. Her presentation was very well-rounded and is a good resource. She justified her own publishing history based on impact factors within her own discipline, as well as how she selected open-access journals based on their respective relevancy rankings. This will obviously vary on the discipline, but the methodology of her approach would likely be of interest to graduates and early career researchers. She also made the case for a greater likelihood of interaction among peers, even though it was largely based on personal experience rather than hard evidence. There were remarks from the audience and much discussion about the general difficulty of being in the compromised position of tenure-track faculty at large research institutions, where many of the high-impact journals they are required to publish in remain closed and fee-based.

The following panel focused on successful student-led open-access initiatives in the Nigeria, Kenya and Tibet. We, as a community, should perhaps look further into the idea that some institutional repositories are already

equipped to serve less-privileged institutions as a repository, by creating a separate portal and partitioning the storage accordingly. I'm unclear what the technical implications would be, but as less privileged institutions build their own infrastructure, well-funded institutions could offer a free repository service whose content would ultimately be transferred to the originating institution when their infrastructure was prepared to handle it.

Phil Bourne, Data Director of the National Institutes of Health (NIH), then spoke about the importance of open science to human health and the ongoing support of the NIH to make all grant-funded research mandatorily openly accessible. At the most basic level, it seems very utilitarian, even though we have large technical and infrastructural issues to overcome. However, of most interest to me (and which I specifically asked him about), is how we reconcile the exponential rise of open access alongside the seemingly counterintuitive strengthening of intellectual property laws that allow inordinate amounts of wealth to concentrate developed countries. It is troubling to think about how for-profit companies will exploit the vast amount of open data and patent their findings. In doing so, they will not be obligated to make those findings available to the general public, offer their discoveries at a cost that is reasonable given their development cost or take into full consideration the human/environmental health that the NIH is seeking to promote.

There was a bit of mystery surrounding what our advocacy training day would entail. In hindsight, it might have been better to equip us with this information earlier, as many of us felt scrambled as we went about our itineraries. Regardless, we all met at the Hart Senate Building and each attendee was given a personalized packet, where we met with senate representatives, diplomats and administrators of funding agencies throughout the course of the day. Then, Amy Rosenbaum, a member of Obama's executive office, spoke to us about general advocacy approaches and common faux pas to avoid.

From there, we all parted and went our separate ways, where I went to speak with a representative of Pennsylvania Senator Pat Toomey's office as part of a group of four. We mainly discussed publicly funded research grants being made accessible to the public and the win-win opportunity to commission publicly paid educators to create open educational resources so that schools and students could avoid textbook fees and reduce student debt.

Then, I met with Robert Horton, the Associate Deputy Director of Library Services at the Institute of Museum and Library Services (IMLS), as part of a larger group of approximately 15. The majority of the attendees of this session were librarians and we had a terrific conversation with Horton about what the IMLS should be focusing on as far as supporting open access and early career librarians through grant funding and educational programming. It was a lively discussion and Horton was very receptive. The main takeaways were that the librarians in the room felt undertrained as far as their ability to remain current with their technologically savvy graduate students. There was also considerable attention spent on leadership training, as a large portion of the early career librarians present felt constrained in their attempts at effecting change within their own libraries and institutions.

ABOUT THE AUTHOR

Matt received his MLIS from Long Island University in 2011 and has worked as a Library Associate at Rutgers University Libraries. In 2014, he received his MA in history from Rutgers as well. As an early career librarian and recent graduate, Matt actively follows ongoing developments and initiatives concerning open access and the digital humanities, seeing them as exciting areas for growth in the future of academic libraries.

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