Virginia Libraries

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COLUMNS

From the Editors

*W*hen Rebecca approached me about having the Virginia Chapter of the Association of College & Research Libraries (VLACRL) edit a peer-reviewed issue of Virginia Libraries with the theme "open," I thought she meant anything would go. I was intrigued when she explained instead of the theme being open to anything, she hoped librarians would look at the word "open" and find a professional connection. The word geek in me loved it.

My first connection was "open access" and many of the authors in this issue also explored this route. Their articles do a wonderful job examining different aspects of open access publication, and I hope you learn as much as I did from their pieces.

Libraries are a symbol of openness. All of our stuff— the books, the journals, the DVDs, the computers, the space—is meant to be shared. You give a library money, and it is going to use the funds in some way to benefit the greater community.

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> to be shared.**

As a professional community, librarianship feels incredibly open. It is easy to become involved in ALA, ACRL, or a myriad of other library organizations. And if the existing structures don't suit your needs, it's simple to create your own task force, working group, committee, etc. VLACRL exists because a bunch of librarians took the time to get together in Charlottesville and say, "We want more." Many librarians have given their time over the years to make VLACRL successful.

I believe the future of libraries is in openness. As a support service, a library's success depends on responding to and communicating with our learners. On academic campuses, we need to be part of the institution-wide conversations, and know what are the needs, wants, and desires of the faculty, staff, and students. We need to figure out how we can be part of their goals. We need to be open to new ideas. But equally important, we need to be open about our needs, wants, and desires—and our limitations, too. Personnel, time, and resources cannot be infinitely scalable. Through open and honest conversations with our learners, we can define and build relationships that are mutually beneficial.

My challenge to you as readers is to consider how else "open" plays into librarianship.

Candice Benjes Small, VLACRL Chair 2013–2014

*B*ringing this issue into the world has certainly challenged my assumptions and ideas about how "openness" interfaces with librarians, libraries, and librarianship. Although I knew that discussions about openness go much further than open access, I was unaware of the many directions that libraries are moving in and the many roles that libraries are claiming within the world of openness. The six articles that comprise this issue all focus on very different aspects of openness, but agree on the critical role that libraries play in educating others and leading community conversations about engaging in the world of information, copyright, and access.

The six articles accepted for this issue touch on four specific themes related to "openness": teaching and learning, collections, scholarly publishing, and policy. Interestingly, not one of these articles focuses solely on one of these themes; rather, the authors of the articles in this issue discuss the intersections of these topics. Molly Keener (Wake Forest University), for example, discusses both copyright policy and the way that she integrates it into information literacy workshops in her article on contextualizing copyright for the classroom. Along the same lines, Anita R. Walz (Virginia Tech) also discusses copyright policy, but in the context of identifying, using, and creating Open Educational Resources.

Similarly, each of the articles in this issue represents a practical viewpoint, offering readers specific ways to change or enhance their own professional practice. Craig Arthur (Radford University) offers perspectives on the changing landscape of open access (OA) publishing and how scholars can identify high quality OA publishers and publications. Offering readers specific collection management guidance, Adelia Grabowsky (Auburn University) writes about the impact of OA publications on collection management and the challenges of rethinking traditional collection management strategies in order to address new formats and processes.

Finally, the articles in this issue all look ahead, offering readers a window into the future of our profession. Gene Springs (The Ohio State University) and Ashley Faulkner (Texas A&M University) each write about the role of MOOCs, or massive open online courses, in the future of higher education and libraries. Springs offers

an in-depth evaluation of how "open" the materials used in MOOCs may or may not be, and Faulkner identifies the many different roles that libraries and librarians can and should embrace in the world of MOOCs.

While the four themes of teaching and learning, collections, scholarly publishing, and policy describe the content of this issue, the real goal of this issue is to engender new discussions about "openness" within our community of Virginia library and information professionals. Candice challenged you to consider other ways that "open" impacts librarianship; I challenge you to think about the role that you play in your organization and how you can bring "openness" to your specific context. As you read through this issue, look for at least one takeaway. How will the insight that these authors share change the way you interact with your colleagues and your community? Remember, the future is wide open!

Rebecca K. Miller, VLACRL Chair 2014–2015 **VL**

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Many thanks to each of these individuals and to everyone else who contributed time, energy, and effort to this issue. We appreciate you and your hard work! **VL**

New Directions for *Virginia Libraries*

After sixty years of publication as a quarterly print journal, *Virginia Libraries* is moving in a new direction. As noted in every issue, the journal was originally designed to: "develop, promote, and improve library and information services and the profession of librarianship in order to advance literacy and learning and to ensure access to information in the Commonwealth of Virginia. The journal, distributed to the membership, is used as a vehicle for members to exchange information, ideas, and solutions to mutual problems in professional articles on current topics in the library and information field."

The journal has had a remarkable run, and the archives will remain available online at: http://scholar.lib.vt.edu/ejournals/VALib/index.html.

We're excited about the first peer-reviewed issue of *Virginia Libraries*, which is this very issue! We are also taking this opportunity to reshape the journal into an annual single-issue, peer-reviewed print journal, which will continue to be kept in the online archive. At the same time, we see the Virginia Library Association website growing into a more robust platform for sharing timely news and information from our members.

With this in mind, we are forming a new Ad Hoc Website Content Committee to review the Association's website. This committee will work with the VLA Executive Committee and the VLA Executive Director to develop policies and procedures for maintenance of the website, including the creation of new content that best meets our members' needs. If you are interested in serving on this committee, please contact Lisa Varga (vla.lisav@cox.net) or Shari Henry (shenry@arlingtonva.us).

We look forward to continuing to work with you all to enhance our professional communication and develop innovative publishing practices that support and nurture our community of library and information professionals.

With many thanks,
The 2014–2015 VLA Executive Committee:

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MOOCs and Libraries:
Many Hats, Many Questions

by Ashley E. Faulkner

I n light of their ubiquitous presence today, it is easy to forget: even if you date back to the first use of the term, MOOCs (massive open online courses) are only six years old. If you date to the popularization of the form, MOOCs' breakthrough moment didn't come until two Stanford professors offered one such course on artificial intelligence in 2012 and over one hundred and sixty *thousand* people around the world registered.[1] That same year saw the inception of popular MOOC platforms, including Coursera and Udacity, the former having since registered over four million users.[2] In light of this limited time frame and rapid rate of growth, it is perhaps not surprising that scholarly research regarding MOOCs is relatively sparse; while there has been some attention paid to the pedagogy and instructors of MOOCs, there is, as of yet, very little research into the role of libraries and librarians within this movement.[3]

The very definition of a "massive open online course" is still evolving. MOOCs are a part of the evolution of online education, but are distinguished from other online education offerings by their unprecedented size and open enrollment policies. Traditionally, the only requirement for registration for these "open" courses was access to a computer and an Internet connection, but many MOOC platforms have begun to add for-cost components, so this distinction is increasingly ambiguous. MOOCs are generally developed by well-known experts in various academic disciplines and associated with prestigious universities. Students are often grouped into cohorts so classes begin and end on set dates, allowing for active discussion, though work is completed asynchronously. Many MOOC platforms have also begun to include tools to encourage virtual or even in-person meet-ups in order to build a deeper sense of community among learners.[4] It is worth noting, though, that while the very first MOOCs were driven by connectivist pedagogy, emphasizing truly "crowd-sourced learning," most MOOCs

> **… MOOCs may one day all but entirely replace traditional, brick-and-mortar universities.**

today are strongly instructivist in the vein of the educational mainstream, meaning they tend towards a more traditional, strongly lecturer-led format.[5] Overall, while MOOCs may lack the interaction, mentoring and higher-level assessment available through in-person courses, they are generally considered a solid means of content delivery.[6]

The continuing evolution of characteristics, and in particular the recent shift in pedagogy, could potentially explain why speculation has exploded in the past year regarding the future of MOOCs and the role they will play in higher education in the coming decades. MOOCs may wear many potential hats, but one of the grandest and most pondered predictions is that MOOCs may one day all but entirely replace traditional, brick-and-mortar universities. A number of universities already allow students to earn college credit for MOOCs, which seems the logical first step in a progression to MOOC course tracks and eventually full degrees earned via MOOCs.[7]

Whether or not this is truly a feasible future remains to be seen. On one hand, the U.S. Department of Education summarized its review of relevant research literature by concluding that, "online learning appears to be as effective as conventional classroom instruction."[8] Last year, the American Council on Education reviewed five Coursera courses and recommended them all for

Ashley E. Faulkner is an Assistant Professor and business librarian at Texas A&M University's West Campus Library in College Station, Texas. She graduated with both her MLIS and MBA from Kent State University and her professional goals center around the meeting of these disciplines within the study, support and instruction of information and financial literacy. She is a member of the American Library Association, and therein the Association of College and Research Libraries, the Reference and User Services Association, and the Business Reference and Services Section, where she serves on the Education Committee.

college credit. Additionally, it is well documented that, when students are given the option of video lecture videos, student attendance at live lectures declines; this indicates that students seem to perceive in-person and virtual offerings as roughly equivalent.[9] On the other hand, MOOCs have notoriously high attrition rates, averaging around 90%, and a number of incidents have highlighted the question of whether those who complete courses have truly mastered the material.[10]

Breaking away from traditional classroom comparisons, MOOCs are also frequently hailed as a means to "democratize education," and are considered potential ongoing innovators in the field of continuing education for professionals. In some respects, MOOCs do allow for democratization due to their minimal cost and ubiquity; however, while they do have a global reach, MOOCs' impact across various demographics is questionable. Indeed, research suggests the majority of MOOC students have already completed higher-level academic study, are currently studying in the field, or have a professional affiliation to their subject area prior to registering.[11] If this is so, MOOCs may not be democratizing education, although their role as continuing education innovators seems assured. Others argue the recent decline in MOOC registration and interest after two years of growth is because of a shift in demographics, as academics and professionals have satisfied their initial curiosity related to MOOCs and are now considering the best means of utilizing these courses within their respective institutions. This may prompt either resurgence in continuing education or a demographic shift away from the professionals that were taking these courses to the students that academics teach or that professionals may want to hire.[12]

MOOCs also potentially have two large, non-pedagogical roles to play. The first is providing an unprecedented research and data mining opportunity. As well as providing a natural laboratory to "experiment with pedagogical methods on a vast scale," the rapidity of MOOC adoption and the clear-cut transition to distinct, new services provides researchers with a unique opportunity to conduct comparative studies.[13] In her paper "MOOCs: An Opportunity for Innovation and Research" Sarah M. Pritchard suggests that librarians, for example, could study "different bibliographic instruction approaches in the same exact class, one on campus and one via a MOOC; or one via existing small-group online delivery versus later in a MOOC."[14] The general expectation is that the abundant data collected by MOOC platforms will compliment these field studies, and indeed be the impetus for more and further studies into learner behavior.[15] Of course, we must remember the competitive and for-profit nature of these platforms, which may make them reluctant to share any data that could have a potential competitive purpose, including demographics and detailed learner analytics.

For librarians, the biggest non-pedagogical role of MOOCs is their ideal position to promote open access resources. MOOCs present a bevy of copyright and licensing challenges unlike those in traditional classroom settings. The applicability of the fair use rationale is questionable, given the for-profit nature of many MOOC platforms, their international scope, and their unprecedented scale.[16] Consequently, faculty who create MOOCs often run into difficulty with copyright restrictions on materials they wish to carry over from in-person courses. This provides librarians with potential "teaching moments" wherein open access alternatives to traditional publishing can be discussed, addressing one of the greatest challenges librarians have thus far faced in the open access transition: convincing faculty to publish in open access outlets themselves.[17] It is possible that once they realize they cannot even use their own work in a MOOC context without haggling, faculty may be more receptive to a conversation about the importance of open access journals and repositories.

> … they cannot even use their own work in a MOOC context without haggling.…

Librarians involved in MOOCs also should remember: MOOCs not only disperse content, they also create it. As students are encouraged to discuss and remix provided information, they are co-creators of content that could also be open access.[18] Librarians should ensure that licenses with MOOC platforms providers are non-exclusive and that their open access policy applies to the content created both for and by MOOCs.[19]

While librarians have not had a strong formative role in the MOOC movement to date, this does not preclude such a role moving forward, and already librarians are playing strong supporting roles in MOOC creation and implementation. Currently, librarians participating in MOOCs are cast in the role of consultants, mainly leading discussions in copyright considerations, licensing negotiation, and traditional library instruction. MOOCs continue to highlight the issue of whether current copyright law is adequate and appropriate in our increasingly digital and open world. For now, though, we all work within the existing legal framework, and for librarians working with MOOCs, this has meant copyright-clearing works and helping faculty find and locate alternative resources when this

is not possible or when we have an open access teaching moment. Unfortunately, this is a time-consuming role; Coursera, for example, estimates an average of 380 staff hours in order to copyright-clear the materials for each individual MOOC. This situation highlights one of the looming questions librarians will need to answer moving forward: How do we balance our commitment to serving our traditional patrons, with this additional, and potentially vast, new patron body?[20]

The bigger question, though, may be: do traditional library services need to evolve in order to even consider serving hundreds of thousands of new users? We must walk a careful line in considering that even "at reduced traditional service levels, MOOC students could quickly overwhelm a library," but if we do not participate in MOOCs moving forward we may "reinforce the idea some students have that libraries are no longer a necessary part of education."[21] Currently, suggestions for a balanced approach include supplying modified online resources, such as resource guides, FAQ pages, self-paced tutorials, and contact information, such as an email address more than one librarian will be responsible for monitoring, as opposed to personal contact information, as one librarian alone could be quickly consumed by requests for assistance.[22]

There are likely some MOOCs that do not require much librarian support, such as those focused on very specific skill sets, but for the most part library instruction, particularly information literacy instruction, is even more important in the online-only MOOC environment.[23] As students are left on their own to find, analyze, and use online materials, information literacy skills become absolutely crucial, as they will be for the rest of students' lives. While traditional instruction methods are likely impractical, librarians should lobby for the inclusion of general online library tutorials or information literacy skills self-assessment tools to be included in MOOCs. Additional difficulties may still arise, however, due to the global reach of MOOCs; learners' background knowledge and existing information literacy skills may be irreconcilably different and they may require assistance twenty-four hours a day as time zones come into play.[24] Yet, an information literacy component appears essential in the MOOC environment as plagiarism concerns, in particular, have plagued the movement.[25]

Of course, some argue information literacy skills will become moot in this environment as an a la carte system develops between publishers and MOOC platforms or MOOC professors. Already some MOOC platforms,

The casual dismissal of information literacy in this context is chilling....

such as Coursera, are in talks with publishers to make selected materials available to MOOC students for the duration of the course, with the expectation from the publisher that these students might buy the materials at the conclusion of the course.[26] While most publishers have not embraced this potential avenue for advertising, Elsevier donated page images of a complete textbook to a computer science HarvardX MOOC, with a closely associated link to the Amazon purchasing page, and saw sales of the book increase 2,000 percent over the MOOC dates.[27] While such innovations in licensing may be welcome in some regards, the larger impact on information literacy skills could be disastrous if students are prompted and expected to use only these provided resources.

In addition to offering a la carte licensing, some MOOCs deal with the issue of providing information resources by neither providing nor requiring any. While either providing all course resources or requiring no resources are both approaches that arguably obscure the role of libraries, the more pressing concern is the implicit disregard for information literacy skills; if students are not expected or required to use any resources beyond the MOOC, then they, indeed, have no need to gain or enhance information literacy skills within this environment. Unfortunately, they will still need these skills beyond the MOOC environment. Information literacy skills are not academic skills; they are life skills. The casual dismissal of information literacy in this context is chilling and an indication that librarians need to continue outreach and education regarding information literacy, especially in our increasingly open environment.

In determining how libraries and librarians should position themselves in the MOOC movement moving forward, the first question may be to determine whether MOOCs are a fad or a trend. A fad fizzles out, whereas a trend is enduring and leaves a lasting impact. However, libraries, similar to the institutions they serve, find themselves in the situation where they cannot afford to be left out of the movement now, regardless of the future. For higher education institutes, "MOOCs are like movie trailers for universities," and the intense media attention focused on MOOCs, hype or not, is such that universities may miss out on valuable media exposure if they're not offering MOOCs or participating in the conversation.[28] Likewise, libraries may wish to be more involved in MOOCs as a matter of increasing their overall exposure and perceived relevance to their campus community. Furthermore, if MOOCs *are* here to stay, many issues will be more efficiently navigated
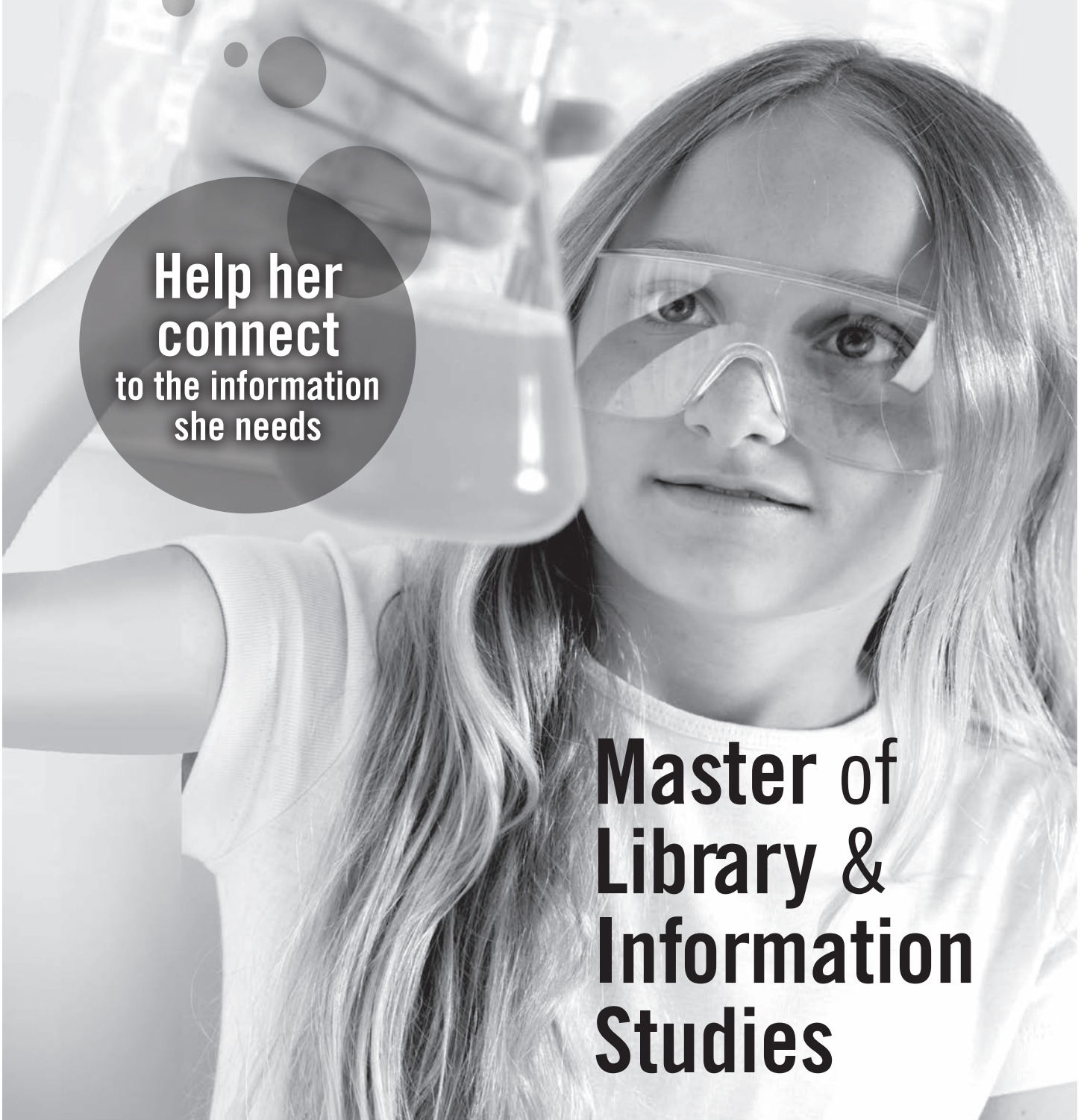
if libraries can begin to influence the conversation, and eventually university policies, at this point in time.

Most of this article, and most of the discussion of libraries' roles in the MOOC movement, has focused on academic libraries, but public libraries should bear in mind that one potential future for MOOCs is a growing emphasis on continuing education. If MOOCs become less academic and more vocational, students may be looking towards their local public libraries for resources and guidance.[29] Again, it is better to consider these possibilities and plan for them than to panic at a point-of-need moment.

So what are some practical steps librarians can take right now to address this concern? The first and simplest is to sign up for a MOOC! Experiencing MOOCs from the learner perspective will give librarians a better personal idea of what MOOCs are and where libraries may play a role. Next, dive into the conversation. Talk with your peers, with educators, and with the communities you serve. This conversation would be enhanced by more scholarly research into MOOCs, and more research into the role of libraries and librarians in MOOC development and delivery. Lastly, if your institution is already involved in MOOCs, or is considering getting involved, strive to be included in the development phase so expectations of future library support are realistic. While it is considered a best practice to include librarians in MOOC project teams, we must actually implement this suggested practice. We are an irreplaceable voice in this conversation, and if nothing else, that's the hat we can wear right now.

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Just How Open? Evaluating the "Openness" of Course Materials in Massive Open Online Courses

by Gene R. Springs

Introduction

Massive Open Online Courses (MOOCs) are poised to alter dramatically the current and future higher education landscapes. Through various providers, ranging from university-sponsored consortia such as edX, through for-profit partnerships like Coursera, to independent ventures such as Udacity, college-level education has been made available to any person in the world, provided they have Internet access.[1] This differs quite drastically from the tuition-based enrollment model of the past and present, which is not only predictable but is also the standard on which higher education financial management is based. Though MOOCs have existed in some form since 2008,[2] their proliferation into mainstream media occurred in 2012, as Laura Pappano declared by titling her *The New York Times* feature article "The Year of the MOOC." At the time of Pappano's article, over two million students worldwide were registered for courses offered by edX, Coursera, and Udacity.[3]

The participation of universities in MOOCs continues to grow at a rapid pace. In July 2013, Coursera had 68 university and museum partners, and in June 2014, 99 university, museum, and institute partners, making it, by far, the largest MOOC platform.[4] Similarly, the edX consortium, initially a partnership between the Massachusetts Institute of Technology and Harvard University, has added the University of California, Berkeley and the University of Texas system as members since its founding. While there may be a variety of reasons for universities to join a MOOC system, including reaching potential future students from all corners of the globe, or educational altruism, the adoption rate of MOOCs by the world's leading universities is high and may continue to increase.

> **Some of these challenges have begun to be addressed within academic libraries.**

As more universities enter this still burgeoning field, the libraries that support these institutions are challenged with myriad issues, ranging from copyright and fair use through potential reference support of MOOC students, to the more minute details of liaison work with faculty partners. Some of these challenges have begun to be addressed within academic libraries. In October 2012, the Association of Research Libraries (ARL) published an Issue Brief by author Brandon Butler that focused on five legal and policy-related issues regarding MOOCs and research libraries: use of copyrighted works in instructional materials, the assignment of copyrighted works for outside reading, copyright status of materials created by faculty for their MOOC courses, if notice-and-takedown provisions of the Digital Millennium Copyright Act apply to MOOCs, and disability and accessibility.[5] OCLC Research and the University of Pennsylvania hosted a two-day conference in March 2013, "MOOCs and Libraries: Massive Opportunity or Overwhelming Challenge," which brought together leading authorities on copyright, open access, e-learning, information literacy, and learning technologies to discuss the wide range of issues that MOOCs raise for libraries, including those addressed in the ARL Issue Brief.[6] In March 2014, Carmen Kazakoff-Lane published a white paper with the Association of College & Research Libraries (ACRL) that undertakes an environmental scan of MOOCs, Open Educational Resources (OERs) and the potential impact for libraries in the open education movement.[7]

Gene R. Springs joined The Ohio State University Libraries in January 2014 as the Business Librarian. His current research interests include: open access, collections analysis, and succession planning.

MOOCs are not the first "open" movement in higher education. For over a decade OERs have been explored as a potential solution to the ever-rising costs of textbooks.[8] University libraries are also stakeholders in this discussion as students turn to the library for current editions of their course textbooks either on reserve or in their circulating collections. In 2011, the University of Massachusetts Amherst (U Mass Amherst) Libraries partnered with the Office of the Provost at their institution to develop the Open Education Initiative (OEI) to form a "grant-incentive program to change or augment the traditional textbook model with resources that are openly available or available to students at no additional charge."[9] Faculty members from a variety of departments participated in a combined 26 courses; using course enrollment figures, Billings et al estimate that over 1,600 students could be impacted by the OEI at U Mass Amherst each time one of these courses are taught in the future. This example of OERs in use for traditionally enrolled students at a university serves as a potential model for MOOCs where other options, including course reserves, are not an option.

This article will examine the "openness" of the reading materials listed in MOOCs offered by Coursera and edX, the two major university-sponsored MOOC platforms. Since the major draw for MOOCs is their free enrollment for anyone, anywhere, are the reading materials included by professors freely available as well? If so, what kinds of freely available reading materials are being included? Are OER textbooks and other forms open access content listed by course professors?

Literature Review

Though MOOCs are a new factor in library and information science, as the dearth of peer-reviewed, scholarly articles in the field suggests, education researchers have been examining MOOCs for several years. This literature review will examine a selected number of relevant articles that address pertinent issues in MOOCs that relate to this study, and will not be exhaustive. Liyanagunawardena, Adams, & Williams provide a comprehensive review of the scholarly literature about MOOCs, categorizing the literature alongside quantitative analysis and identifying gaps in the literature; this is a recommended resource for a background on MOOC literature, particularly the educational theory behind MOOCs.[10]

Fini focuses on the technological aspects of MOOCs, in particular an examination of user data supplied from

> … are the reading materials included by professors freely available as well?

a survey at the completion of the MOOC Connectivism and Connective Knowledge (CCK08), and discovered that most of the participants in CCK08 were adult, informal learners, who were not concerned about course completion.[11] Similarly, deWaard et al, found that out of the 556 people who participated at some point during a course titled "MobiMOOC," only 74 were active members, and of those, 32 were "memorably" active.[12] Attrition in MOOCs is a running theme both in the scholarly literature and in popular resources. Hu notes that attrition rates should be more closely examined in her article for the trade publication *Diverse Issues in Higher Education*.[13]

Morgan and Carey examine the opportunities inherent in MOOCs, arguing that MOOCs can reach those in geographic and/or economic isolation, and can aid in improving academic literacy in English. This article, written before the rapid MOOC expansion of 2012, proposes that traditional universities can offer benefits to the institution and the open education movement by offering open courses with an online delivery as seen by the work of the OpenCourseWare Consortium, and concludes that open course models might be particularly beneficial in disciplines that have a global perspective for a global audience.[14] Pence takes a different approach, examining whether or not MOOCs can provide a stable and successful business model for partner institutions, noting that universities may want to use MOOCs to collect data and learning analytics to better understand why students succeed or fail, and could implement the technological capabilities available in MOOC platforms in course management software, to track time in class, among other factors.[15]

Methodology

This study entailed a close analysis of the course page and syllabus listed for each Coursera and edX course that began between January 1 and March 31, 2013. To gain access to these materials, the author registered for each class offered by Coursera and edX during this time period. The author took screen shots of each course page and syllabus, examining each for any mention of the words "text," "textbook," or "readings." Whenever one of these words appeared on the course page or syllabus, the screen shot was marked to highlight these words. The author then categorized the resources as either "textbooks" or "readings." The principle distinction here was how the professor introduced the material, and what the item actually was. For instance, when

an introductory textbook appeared under "Course Readings," it was categorized as a textbook. Readings, primarily, were articles from a variety of sources, including web publications, web sites, online newspapers, blog posts, and a few scholarly articles, among others.

Each occurrence of a course material, be it a textbook or reading, was then judged against a matrix of "openness." For a textbook, a work was considered open access if it was linked to freely, via an OER platform or as a PDF with a Creative Commons license. Textbooks that were not linked to freely, but were linked to through their publisher site or another online retailer, such as Amazon or Google Books, were categorized as "pay texts." The matrix for course readings was the same. Course readings could be deemed "freely available" or "pay." While these are broad categories, they generally captured the content, from examples such as National Institutes of Health articles (free) to lists of citations to scholarly articles (pay). One unaccounted for factor not included in this study is the prevalence of readings that are currently freely available, but will likely be behind a pay wall should the course site be archived and be accessible in perpetuity. Included in this category of readings would be online newspaper or magazine articles, which now are freely available but, depending on the publisher and their archiving policies, may be behind a pay wall at some point in the future. For this study, readings that were freely available at the time of the course are included in the "freely available" category.

There is a risk for error in this data collection and categorization as the author served as the sole arbiter of what was considered a textbook or readings based on the definitions above. Additionally, the matrix devised to judge the levels of open access was also solely the work of the author, and therefore may contain bias in categorization.

Findings

From January 1 through March 31, 2013, the author registered for a combined 95 courses offered through Coursera (80) and edX (15). These courses spanned a wide range of disciplines, from earth sciences to economics, and nutrition to Ancient Greek heroes. In all, there were 61 classes in the sciences, 23 in the social sciences, and 11 in the humanities. The largest sub-discipline was computer science, which itself had sub-categories available through Coursera; there were 21 computer science courses offered during the period of analysis. This finding is unsurprising, given

> ... the author registered for a combined 95 courses offered through Coursera (80) and edX (15).

that several of the early MOOCs were often computer science-related.[16]

Textbooks

In total, 49 courses listed a textbook on the course page or syllabus, referring to it as a textbook, or listing it among other readings. Of these 49 courses, 20 were freely available, or open access; 29 were considered pay texts, with either a link to a publisher site, Amazon or Google Books, or just a citation listed with no link. Coursera courses comprised 13 of the courses that included an open access textbook, which accounts for 16 percent of their total offerings, while 7 edX courses had a freely available textbook, which is 46 percent of edX's total offerings. It should be noted that the edX platform, which is fairly consistent in the categories and link locations from course to course, allowed for these freely available textbooks to be embedded within the course site. This made accessing the texts very easy, and did not require the students to leave the course site. Conversely, the freely available textbooks in Coursera were listed in different places from course to course, and depending on the platform of delivery for the open access textbook, widely varied.

If Coursera's user experience in accessing the freely available textbooks was less than optimal, the variety of providers for the textbooks was noteworthy. Several different OER providers were included in Coursera courses, including Connexions, Bookboon, WikiBooks, and the Open Learning Initiative. Additionally, one course had an independent OER: a textbook, *Mooculus*, written and developed exclusively for the MOOC course "Calculus One," offered by The Ohio State University. In 4 of the courses, links were included to PDFs of a textbook or chapters from a textbook. One course had 3 chapters available in a PDF file, with no noticeable Creative Commons license; permission to include these chapters, which were written by the course instructor, may have been obtained from the publisher, Cambridge University Press. Another course textbook, also authored by course instructors, was available for free download as a PDF, or available for sale via iTunes, the publisher, or Amazon. In edX, express permission was granted for use of some of the textbooks embedded in the course site, but was not indicated for all 7 courses with freely available textbooks.

The "pay textbooks" include texts that were available via links to publisher sites, book retailers, or through no link at all, simply listed as a citation; these encompassed nearly 60 percent of the courses that

listed a textbook. Out of the 29 total courses that included pay textbooks, 25 of them were from Coursera, and 4 were from edX (with one course taught twice during the time period of analysis). A total of 9 courses included links to Amazon, 7 to the publisher site, 2 to Aleks.com, 1 to CourseSmart, 1 to Google Books, and 1 to a personal web site. Of the 9 courses that included links to Amazon, 4 additional options to iTunes, nook, or Kindle editions. The remaining 8 courses listed a citation for the textbook, but provided no link to purchase the book from a retailer. The inclusion of these "pay textbooks" provides a barrier for the students in MOOCs. Even though a number of the course pages and syllabi included language such as "this course is self-contained," and "refer to the textbook for a deeper understanding of the course content," students may feel they are not getting a fulsome experience without these textbooks, and may end up unnecessarily purchasing them.

Course Readings
In total, 44 combined courses contained readings or links to readings that were not textbooks; 38 from Coursera and 6 from edX. Of the total, 29 of the courses had readings available from a link or page header with the word "Readings" appearing somewhere (variations include Suggested Readings, Recommended Readings, and Reading Assignments). The remaining 15 courses used a variety of names for where the course readings could be found, with 8 naming them Resources. There were 31 courses with course readings that had links to or embedded only freely available resources. These freely available resources include news and magazine articles, published items from United States federal agencies, web sites, blog posts, and other textual sources, and could be linked to as web resources or available as PDFs for download. Not included in the 31 courses with only freely available resources are the 6 courses that contained both freely available and "pay" readings (in the form of citations with no link or directions on how to access them). These courses listed a variety of readings side-by-side, or in one instance, listed in separate sections.

A finding of note was the use of scholarly articles made available through an institutional repository. In the course "Women and the Civil Rights Movement" offered by the University of Maryland College Park, the course professor included a variety of resources under the heading "Readings." While the readings did include "pay" readings in the form of citations with no link under the "Supplemental" section, several scholarly articles authored by the course instructor were linked to the University of Maryland institutional

repository, DRUM (Digital Repository at the University of Maryland). This use of scholarly content via an institutional repository was the only instance noted by the author in this study. As Paul notes in his study on benefits and incentives and the institutional repository, faculty members are still reluctant to deposit materials in their institution's repository.[17] A possible strategy from this solitary example of using deposited scholarly content would be for liaison librarians to speak to their faculty about depositing their work in the institutional repository to make their work available for the masses. There is no mandate for faculty authors to deposit scholarly works in DRUM, yet the course instructor did so and was able to leverage her scholarly output for educational purposes in her MOOC. This could be particularly useful if faculty authors have a noted piece of scholarship they would like to make available for colleagues anywhere to link to without worry of copyright infringement.

Of the remaining courses, 7 of them contained only "pay" readings in a list of citations, or links to commercial sites such as Amazon, to purchase a copy of a resource. These appeared in 3 occurrences under the headings "Suggested Readings," or "Additional Readings." As previously noted, these headings also appear above lists of freely available resources, which may cause confusion for the student, in addition to an expectation to seek out the content or purchase it.

Textbooks and Course Readings
In total, there were 8 courses that included both a textbook and course readings; 6 of these were Coursera courses, 2 were from edX. While 6 of the total 8 courses had textbooks that were "pay texts," 2 courses had freely available textbooks. There were 3 courses that had a "pay text," and all freely available course readings and 3 courses that had a "pay text" and "pay" readings. The 2 remaining courses had both a freely available textbook and freely available course readings; these were both edX courses.

No Textbooks or Readings
There were 10 total courses that contained neither a textbook nor course readings. All of these were Coursera courses, and included 6 in the sciences, and 2 each in both humanities and the social sciences. These courses were truly self-contained, as they relied on no content but the video lectures, assignments, and discussion boards.

> **In many ways, MOOCs are the Wild West of higher education.**

Conclusion

In many ways, MOOCs are the Wild West of higher education. Though their adoption has been rapid, with nearly all of the most prominent research universities in the United States, and over dozens more from around the world participating in either Coursera or edX, much remains to be studied and learned about these courses. As stated in the literature review, there are not yet any scholarly studies in the field of library and information science that have become part of the literature. There are, however, editorials, thought pieces, and literature reviews that have been published in the last two years.[18] In her editorial column, Pritchard notes that it is rare to have such an impactful transition occurring so rapidly in higher education, and encourages librarian and information professionals to view it as an opportunity for research and should "…start now to design studies that will give us solid findings demonstrating the successes or failures of contrasting approaches to providing curricular support and research instruction [in MOOCs]."[19]

This study is one such examination. By analyzing what course materials are being included in the still early days of MOOCs, librarians can learn where best to start conversations with their faculty who currently teach or may teach a MOOC in the future. For MOOC instructors, the findings of this study may aid in course planning and the selection of course materials. The inclusion by professors of OERs and freely available course readings point to an embrace of the "open" potential for MOOCs. How might this impact standard in person or online classes? If liaison librarians also embrace this spirit in their conversations with their faculty constituents, perhaps open access materials will be the majority of course materials in a follow-up or future study, particularly if faculty members continue to deposit their scholarly work in their institutional repositories.

There are many opportunities for future research on this topic. A comparative study over time would be of interest to see if the adoption of open content increases as libraries become more invested or involved in the hosting of institutional repository content, or in the creation of OERs. Additionally, how do changes with content publishers may or may not make available impact what professors include in their courses?[20] And, taking the long view, how might student interaction with open content in MOOCs drive their expectations for course materials in for-credit, face-to-face or virtual classes? As MOOCs continue to be developed and adapt to their evolving environment, these questions and myriad others will lay poised to be examined in greater detail.

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The Impact of Open Access on Collection Management

by Adelia Grabowsky

Open access (OA) is a relatively new concept in the long history of published scholarly communication. Although there were already some open access journals in 2002, many point to the Budapest Open Access Initiative (BOAI) held in that year as the beginning point of the "open access movement." The BOAI called for freely available literature which permits "users to read, download, copy, distribute, print, search, or link to the full texts of these articles, crawl them for indexing, pass them as data to software, or use them for any other lawful purpose, without financial, legal, or technical barriers other than those inseparable from gaining access to the internet itself."[1] Since the BOAI, the open access movement has continued to grow and change, and in 2013 David Lewis predicted that over the next ten years, OA would "become the dominant mode for scholarly journal publishing" and recommended that academic libraries "continue to support open access initiatives: institutional deposit mandates; support for open access journals; or funding of open access author fees."[2] Collection management was also expanding in the 2000s with the addition of access management: the need to facilitate effective and efficient access to electronic materials while still managing physical collections.[3] In 2011 Emilie Delquie asked if the philosophy of collection management was evolving from just collecting information to "'hooking' users up with information?"[4] This article examines if and how the integration of OA materials has changed collection and/or access management activities within academic libraries.

Traditional Collection Management Responsibilities Related to Open Access

Many of the traditional aspects of selection are the same for both open access and purchased or leased materials. Both fee and free potential resources must

> … the emergence of predatory publishers makes the evaluation of OA journals especially important.

first be identified; however, this may be more difficult for OA resources because they lack "the whole marketing machine…that is part of the traditional publishing world."[5] Some of the same sources used to discover materials for lease or purchase, including reviews, list serves, publisher/society emails, patron suggestions, can also be used to find individual OA resources, although there are other tools specific to open access including the Directory of Open Access Journals (DOAJ) and HighWire Press.[6] Cheryl Collins and William Walters list four ways in which vendors may provide access to OA content: through lists compiled by third parties such as the PubMed Central, lists provided by publishers such as PLoS, lists developed by the vendors themselves, or lists of databases such as Academic Search Complete which include OA content.[7] Rather than selecting title-by-title, libraries may also choose to provide access to OA collections such as Project Gutenberg, HathiTrust, the National Academies Press (NAP) and the OAPEN library and/or to additional types of OA formats such as streaming video.[8]

Once identified, all potential materials, paid for or not, should be evaluated for quality; the emergence of predatory publishers makes the evaluation of OA journals especially important.[9] The intent of these predatory journals is to "trick authors into thinking they are

Adelia Grabowsky is Health Sciences Librarian at Auburn University Libraries where she serves as subject specialist for the Schools of Nursing and Pharmacy and the Department of Communication Disorders. She is also a member of Auburn Libraries' three-person Collection Management Team which oversees all aspects of collection management including budget, exploration of new collection opportunities, implementation/evaluation of trials, cultivating a culture of assessment, and serving as a bridge between subject selectors and other library departments.

legitimate scholarly publishing outlets" while offering bogus or no peer review and accepting articles from anyone willing to pay.[10] Krista Schmidt and Nancy Newsome provide a list of selection criteria to use when deciding to add OA journals, either title-by-title or as collections.[11]

All types of materials should also undergo assessment to determine if they fit into the existing collection, align with the mission of the library and also if they meet research and/or curricular needs of institutional users.[12] With flat or decreasing budgets, most libraries cannot afford to add resources which are not used, even when those resources are open access.[13] Although OA materials are free to acquire, there is cost associated with them in time spent on cataloging, processing and maintenance.[14] Schmidt and Newsome suggest that maintenance could be more time-consuming for OA journals because they may be more prone to change and furthermore that those changes may be harder to discover since there is no payment and no contact with a publisher.[15]

Access points to new resources must be determined since patrons cannot use resources that they are unable to find.[16] Studies have found that, typically, OA journals are treated like other online journals and depending on the library, they may be placed in or on one or more of the following: OPAC, A-Z lists, journal locators, subject guides or pathfinders.[17] One point to consider when deciding to include an OA journal in a collection is whether the journal is indexed in any of the library's databases, since some authors suggest that even with a variety of access points, patrons will be unable to find and use OA journals which are not included in traditional indexing services.[18] Records for open access journals may sometimes be coded so they can be pulled out as a group (e.g., through the Directory of Open Access Journals) if needed.[19]

Jill Emery and Graham Stone's comment that "content and services in most libraries are not purchased in a vacuum but often can be retained in one" highlights the necessity of ongoing resource evaluation. Collection librarians are familiar with evaluating print resources for weeding, particularly when space is an issue, and with evaluating leased resources when budgets are squeezed or when curricular or research needs change.[20] Open access resources should also be subject to periodic evaluation to ensure they are continuing to meet user needs. OA resources may also offer assistance when making evaluations about print materials. Checking open access book collections such as Google Books or Project Gutenberg for digital copies can assist

> … "content and services in most libraries are not purchased in a vacuum but often can be retained in one"….

decisions about replacing damaged copies, removing duplicate copies or deciding which print books to move to off-site storage.[21]

Collections are for use, so promotion of resources is also a part of collection management. A 2007 survey found that 75% of ARL libraries promote OA resources just as they do other resources; examples of promotion activities for OA resources include adding to a library catalog, including in subject guides or pathfinders, discussing in instruction sessions or reference interviews, and highlighting in newsletter articles or on web pages.[22]

New Collection Management Responsibilities Related to Open Access

In 2002, the BOAI suggested two strategies to increase open access to scholarly literature; these strategies are now commonly referred to as Green Open Access and Gold Open Access.[23] Green Open Access involves self-archiving, which refers to authors depositing refereed articles from traditional journals in open electronic archives such as institutional or subject specific repositories.[24] Journal publishers have varying policies on which version(s) of an article, including pre-refereed, post-refereed, or the publisher's PDF, can be self-archived. In contrast, Gold Open Access consists of publishing in open access journals which do not charge subscription or access fees to users.[25] To replace lost subscription and access fees, the BOAI offered several suggestions for funding Gold OA journals, including sponsorship by universities, governments or foundations that fund research, endowments, profits from add-ons, or through charging authors a publishing fee for each accepted article.[26] Both Green and Gold OA have had an impact on collection management, through the introduction of new responsibilities, issues, and opportunities.

Green OA involves self-archiving articles in electronic archives, and academic libraries are typically involved in the establishment and management of institutional repositories (IRs).[27] Administering IRs requires collection librarians to decide how much support will be provided to those depositing research outputs. Jihyun Kim found that faculty, and in particular those less technically savvy, are more likely to self-archive if offered technical and logistical assistance, and some libraries report a "we do it for you" approach to faculty self-archiving.[28] However, having librarians do all the work of depositing may be difficult to maintain in

times of budget strain.[29] Other libraries require faculty to deposit research output themselves and focus the library's efforts on "content recruitment, cultivating faculty buy-in, and identifying needs on campus that the IR may be able to fill" as well as educating users.[30] Education aims include not only how to self-archive, but also the need for and benefits of OA in general and information about intellectual property rights. Several studies have found that many faculty/researchers do not understand issues surrounding copyright, self-archiving rights, deposit versions, and negotiating with publishers and that users benefit from instruction in scholarly publishing literacy.[31] Websites such as SHERPA/RoMEO, which lists self-archiving information by individual journal title, and SPARC (Scholarly Publishing and Academic Resources Coalition), which provides an addendum to attach to standard publishing agreements, are helpful additions to educational information intended for potential depositors.[32] Today, many IRs have moved beyond the inclusion of only peer-reviewed research articles to "fill a critical need for preservation and access to [other types of] research output" including electronic theses and dissertations, technical reports, working papers, research instruments, protocols, software, and multimedia content" and even blog posts and video footage.[33] With the mandates of funding agencies such as the National Institutes of Health and the National Science Foundation requiring researchers to file data curation plans addressing data access, security and preservation, some IRs are also considering the inclusion of datasets.[34] When including material not previously published, librarians play a crucial role in making items not only accessible but also discoverable with the "creation and implementation of uniform metadata standards," and the addition of metadata to item records.[35] Librarians may also be involved with the creation of digital open access materials by examining special collections for non-circulating items which users would find more helpful in digital format or through collaborating with faculty to identify other locally held materials which can be added to the IR.[36] Lewis goes so far as to suggest that subject librarians "drop traditional collection building activities and replace them with activities that engage with faculty to build digital collections."[37]

Gold OA journals are funded in ways that do not involve cost to the user; often that funding involves charging authors to publish. Some authors may choose to pay the fees themselves or they may include author fees in grant proposals; however, some libraries are assisting authors with payment.[38] This assistance can occur through library membership with open access publishers; for example, when libraries subscribe to BioMed Central, one of the benefits is a discount on the fees charged to institutional authors.[39] Libraries may also or instead choose to establish author fee funds which allow institutional authors to apply for funding of OA publishing costs; funds may include caps on spending per author or in total and specifications on author or journal eligibility.[40] Some fee funds come entirely from a library's budget while others are jointly funded by the library and other institutional partners such as the Provost or the Office of Institutional Research.[41] COPE (Compact for Open Access Publishing Equity) is composed of institutions committed to "the timely establishment of durable mechanisms for underwriting reasonable publication charges for articles written by its faculty and published in fee-based open-access journals and for which other institutions would not be expected to provide funds."[42] There are currently 21 institutions that have signed the compact and another 33 listed as non-signers that have established compatible funds.

There is also a new model emerging which attempts to "crowd source" contributions by forming global consortia not only to share resources among contributors but also to use member contributions to "unlock" the resources for everyone through open access. These projects typically work by requiring a minimum number of institutions to contribute a set amount or percentage to achieve the funding needed to make the resources open access. A recent example from the sciences is SCOAP^3 (Sponsoring Consortium for Open Access Publishing in Particle Physics).[43] SCOAP^3 formed a consortium of libraries, library consortia, research centers, and funding agencies that were currently subscribed to one or more of ten important journals in High Energy Physics. These participants committed to continue paying their subscription moneys to SCOAP^3, SCOAP^3 in turn contracted with publishers for centralized payment to contain costs and to make articles open access.[44] Another recent example is Knowledge Unlatched (KU), a consortium focused on the humanities and social sciences.[45] In contrast to the sciences which tend to concentrate on journals, KU is concerned with enabling open access to monographs. KU works by negotiating fixed costs for publishing scholarly monographs, then asking participating libraries to pay a percentage of that cost. As the number of participating libraries increases, the cost for each library decreases and once the fixed costs are met, the

> … librarians play a crucial role in making items not only accessible but also discoverable.…

book is released open access.[46] KU's initial pilot project of 28 titles was recently completed. Two hundred and ninety-seven libraries from 24 countries participated, bringing the contribution per library down from the initial commitment of $1680 to $1195 or an average of less than $43 per book.[47] Another example from the humanities is the Open Library of Humanities (OLH).[48] Still in the process of start-up, the OLH refers to this library crowd-sourcing model as Library Partnership Subsidies (LPS) and is looking for a minimum of 500 libraries to pay an average of $700 to provide open access to 250 articles and 12 books per year.[49] Both KU and OLH also offer contributing libraries an opportunity to participate in governance and future directions of the projects.

Academic libraries can encourage and promote OA through these Green and Gold Open Access activities, but most of these opportunities require funding. In general, the money to fund them comes from collection budgets and there may be pushback from librarians or users about money being used to fund OA projects (particularly individual author fees) while there is no money to add new journal subscriptions or while journal subscriptions are being cut. For crowd sourcing projects, many worry that freeloading, or libraries not participating in the hopes that the participation of others will result in open access for all, will increase and projects will not be able to meet required minimums. All of the Green and Gold OA participation activities require Collection managers to decide just how much (if any) of the budget can be utilized in projects like IRs or author fee funds which benefit the institution directly and how much can go to crowd-sourcing projects which depend on individual institutions to provide for the common good.

Conclusion

Many of the collection management activities undertaken at academic libraries are similar for purchased, leased, and OA materials. Selection consists of identification, quality evaluation, and assessment of relevance to collection and users. Open access materials should never be thought of as completely "free" since there are costs associated with selection, description, cataloging and maintenance. Materials must be made "discoverable" by description, cataloging, and/or being provided with access points and they must be promoted to users in some way. Like purchased and leased materials, OA materials should be periodically evaluated for weeding or cancellation purposes. However, OA also brings up

> **Open access materials should never be thought of as completely "free"….**

new responsibilities in order to promote and encourage self-archiving and publishing in OA journals and also offers new opportunities in enabling open access to all. Collections librarians should be in on the discussion of the development of institutional repositories. They must decide how much help and support they will offer to those making deposits in IRs and whether help will consist of doing the work of depositing or in educating depositors on the ins and outs of doing it themselves. Education is also needed to raise awareness of the need and benefits of OA and in helping faculty find quality OA journals in which to publish. Libraries must decide if encouraging OA publishing includes assisting authors with publishing fees and what criteria will apply to funding. Finally collections librarians must be looking for opportunities to participate in "crowd sourcing," using the funds of many to open up resources to all, and they must make decisions about which opportunities are realistic in their own situation. Although some envision a future where OA dominates, today is still a time of transition and unfortunately, it seems that collection management activities related to OA materials are being added to current responsibilities rather than replacing some of them. In times of flat budgets and dwindling staff, decisions must be made about the extent to which a library can fully participate in open access.

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Open and Editable:

Exploring Library Engagement in Open Educational Resource Adoption, Adaptation and Authoring

by Anita R. Walz

Introduction

Open Educational Resources (OER) have saved students millions of dollars in textbook costs and greatly expanded access to a wide variety of educational materials for countless numbers of students and life-long learners. OER have also saved teachers time and effort by allowing them to reuse, modify, and build on materials developed by other teachers. After a brief discussion of OER and foundations of open licensing, this article presents a number of opportunities for libraries, particularly those situated at research universities.

Origins & Definition of Open Educational Resources

Open Educational Resources (OER) are built on two convictions: that "knowledge is a public good" and that "the internet is a good way of sharing knowledge."[1] Since 2001, the James & Flora Hewlett Foundation has granted tens of millions of dollars in support of these convictions. While there is no standard accepted definition, OER are generally freely available and openly licensed educational resources which may be modified and redistributed with attribution, without permission, and which may in some cases be commercialized. The Hewlett Foundation definition reads: "OER are teaching, learning, and research resources that reside in the public domain or have been released under an intellectual property license that permits their free use and re-purposing by others."[2] OER also include materials found in the public domain.

Types of OER include "...full courses, course materials, modules, textbooks, streaming videos, tests, software, and any other tools, materials, or techniques used to support access to knowledge."[3] OER are typically thought of as digital resources although non-digital items may also be openly licensed. Within higher education, syllabi, lab notebooks, study guides, images, illustrations, case studies, lessons formatted for a learning management system, interactive exercises, practice problem sets, recorded lectures/events, assessment tools, multimedia/interactive tutorials are popular types of OER.

The OER movement borrows aspects of three other movements: The Open Access movement, which provides digital, online and no-cost access to literature and increasingly to repositories, data and other resources; the Distance Education movement, which adopts communications technology and instructional design for learning; and the Open Source movement in which computer code developers share, modify, and redistribute software code under an open license.[4] While OER may be disseminated in print or digital formats, the OER movement may be better understood as a response to U.S. Copyright law and the desire for legal options to enable remix and reuse of original works.

Options for use of existing third-party materials

In its most simplified form, U.S. Copyright Law protects a creator's "original works of authorship" exclusive right to reproduce, adapt, distribute, perform, and display the work for the creator's lifetime plus 70 years.[5] Copyright is automatic when an original work of authorship is fixed in a form of expression and does not require registration or addition of a © symbol. Copyrightable items include literary works, musical or dramatic works (words and music), pantomimes, choreographical, pictoral, graphic and sculptural works, motion pictures and other audiovisual works, sound recordings, and

Anita Walz is the Assessment, Open Education and Online Learning Environments Librarian at the University Libraries, Virginia Tech. She holds a Master's in Library & Information Science from the University of Illinois at Champaign-Urbana and an undergraduate degree in Economics from Wheaton College (Illinois). She has worked in a range of special, school, and government libraries over the past 13 years, including the ERIC Digital Library and the World Bank Libraries.

architectural works. Case law documents decades of efforts to balance author and user rights, and a longer historical view shows varying sways between natural law and utilitarian philosophies of copyright[6]. Although U.S. Copyright laws are in force, compliance (especially in the digital sharing culture) by individuals and groups who are not legal experts is complex, requires effort, and is often overlooked.[7] Currently, four legal options allow further display, reproduction, performance, adaptation etc. of third-party materials, including: 1) using public domain materials; 2) obtaining permission/license rights for use of copyrighted materials, 3) identifying an exempt/fair use under U.S. Copyright law, or 4) using openly licensed materials. Hence, using openly licensed works may be a solution

Attribution Others may copy, redistribute, remix, transform, and build on the work for any purpose, even commercially. Users must give credit, provide a link to the license, and indicate if changes were made.

Share Alike Others may remix, tweak, and build on your work even for commercial purposes as long as they credit you and licence their new creations under the identical terms.

Non-Commercial Others may remix, tweak, and build upon your works non-commercially. Their new works must acknowledge you and be non-commercial, but they are not required to license their derivative works on the same terms.

No Derivatives Others may redistribute, commercially or non-commercially, as long as the work is passed along unchanged and in whole, with credit to you.

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The concept of open licensing was first popularized by Richard Stallman via the GNU General Public License (GNU PL).[8] GNU PL freely allows using, study, modification and sharing of computer software code as a licensed public good. OER are essentially educational
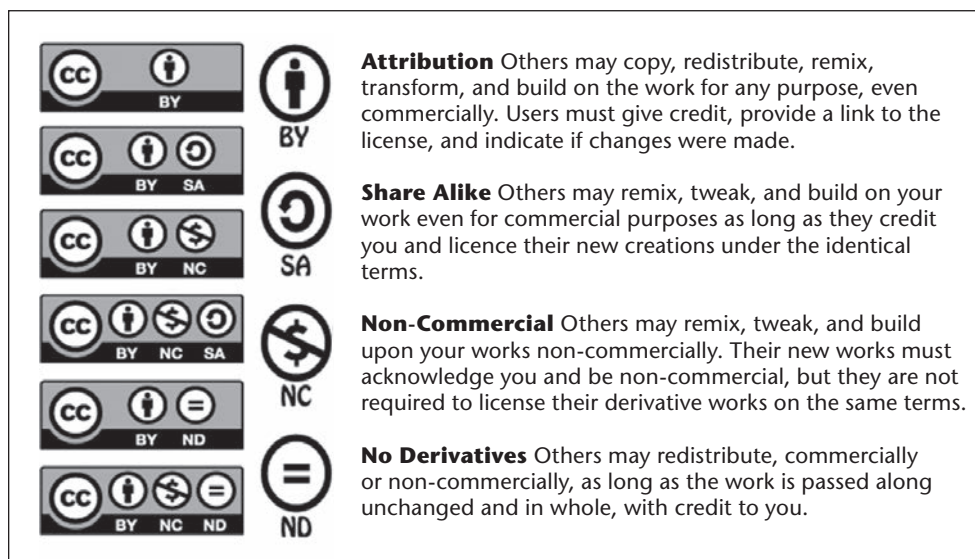
resources to which their creators have applied an open license. Thus, one cannot fully explore possibilities of OER Initiatives without first discussing the concept of open licensing.

Released in 2002, the Creative Commons license is "by far the best-known and most-used [open] license for content."[9] CC licenses allow reuse and in best cases, modification, redistribution, and/or commercialization. The most permissive or "open" of the six licenses, "CC BY" (pronounced see see bye), sets basic terms by requiring author attribution, a link to the license, and indication of any changes. Less open licenses build on the basic CC BY license by requiring derivatives to use the same license terms "share alike" (SA), and or restrict commercial use (NC).[10] A Public Domain identifier (PD) and CC0 indicator showing that an item is given to the public domain are also available. Items with an "ND" (no derivative works) are not considered to be OER because they cannot be modified and redistributed.

Affixing open licenses and using openly licensed materials can save time, effort, and money for users.[11] A user may easily reuse, modify, and redistribute CC licensed works within their own works. In economic terms, using openly licensed materials reduce Copyright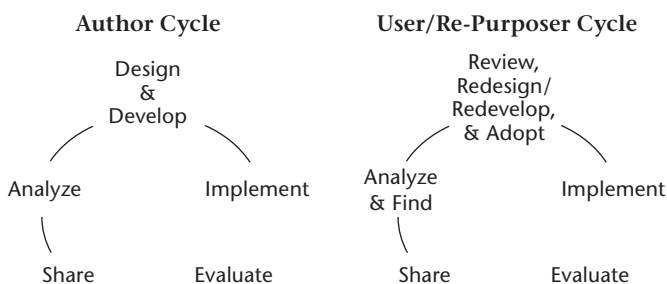 clearance transaction costs to zero or near zero. The user must only follow the requirements of the CC license applied to the item, or select an item that matches the particular type of use they seek. For CC licensed items, copyright exemptions do not need to be found; permission or distribution licenses do not need to be secured; no fees are required. Users also save a great deal of time by reusing or revising exist materials rather than reinventing the wheel.

OER lifecycles could be described as both author and user/re-purposer cycles as seen in the illustrations below:

Author Cycle

Design & Develop

Analyze

Implement

Share

Evaluate

User/Re-Purposer Cycle

Review, Redesign/ Redevelop, & Adopt

Analyze & Find

Implement

Share

Evaluate

While users benefit, authors appear to invest a great deal in creating usable resources. An author who expended effort creating and applies an open license is choosing to forgo possible future royalties. Why? The following examples illustrate rationale applicable to open licensing of content:

- A faculty member or teacher employed in an educational institution may choose to openly license and disseminate works for original created works via various repositories or websites. Students and teachers benefit by increased access and ease of making derivatives.

- Tesla Motors indicated that they would not enforce their patents for electric car technology in order to spur dissemination and development of electric car technology and production.[12]

- The Hewlett Foundation funded the 2001 startup of the MIT OpenCourseWare project, a courseware sharing initiative in line with MIT's mission "to advance knowledge and educate students."[13]

- Harvard cancer researchers, led by Jay Brandner, discovered a small-molecule inhibitor, which appears able to interrupt aggressive growth of cancer cells. They shared molecule samples with 70 labs, and encouraged the labs to use it, build upon it, and share their findings.[14] By spreading tasks among many groups, work was accomplished more quickly and may result in faster creation of (possibly cheaper) cancer fighting drugs.

- Four U.S. universities and a software organization collaborated in creating a collection of integrated, open source learning tools now known as Sakai.[15] The Sakai learning management system became freely available in March 2005.

- Rice University created a non-profit textbook publishing entity OpenStaxCollege to create high quality, openly licensed, free online, and low-cost in print textbooks for 10 million students.[16]

- Colombian vocal artist SylviaO donated an a cappella track to ccMixter, a music site run by Creative Commons. The resulting remix of her track changed how and for whom she creates.[17]

Author rationale for open licensing varies from altruism to competitive advantage by being first to shape the future market, to potential rewards for promotion and tenure, to expediting a project and more quickly benefiting society. Others are motivated by a desire to promote student access and achievement by reducing student costs. Perhaps a project is too large for one entity and open licensing sparks collaboration. Perhaps

Tesla Motors indicated that they would not enforce their patents….

sharing resources compels others to do so. Perhaps the author or sponsor's philosophy or approach strongly weighs in favor of open licensing.

Many faculty are involved in course design, which includes creation of original educational resources or the selection, adoption, and use of third-party (commercial or open) educational resources. Some faculty already share syllabi, assignments, visualizations, simulations or instructional modules, or materials for entire courses on university sites, third party sites such as iTunes University, with colleagues in their department or academic discipline. Others submit these to the University's institutional repository or to an OER repository such as MERLOT, OER Commons, Jorum, or through discipline-specific channels.[18]

Aside from a zero initial cost, an ability to modify resources, and free universal access, the review and adoption processes for OER from K–12 and Higher Education are assumed to mirror many of the same criteria used to measure potential adoption of equivalent formats of commercial educational resources, if OER are indeed considered. Regarding textbook adoptions, a 2012 Florida study higher education faculty reviewers judged open textbooks on the basis of how well they addressed course objectives, accuracy, currency and consistency.[19] Quality indicators from the same study were identical, with the addition of "peer review and recommendation" and "reputation of author(s)" ranked slightly lower in importance as indicators of quality.[20] Detailed data regarding commercial (print or electronic) textbook adoption was not readily available for this study.[21] A 2012 Babson Survey Research Group report indicated that adoption of commercial digital resources on the college level is tied to "cost," "ease of use," "ability to quickly search [find] and review the material."[22] These factors may be generalizable to potential adoption of digital OER.

Faculty usage of OER is also an interesting topic. The Florida study that highlighted the value of faculty and administrators also reported use of portions of textbooks or other types of OER, including videos, images, quizzes, lesson plans, rather than complete open textbooks or an entire sequence of an open course.[23] Non-profit OER producers such as OpenStaxCollege have partnered with producers of commercial education software providers including WebAssign, SaplingLearning, and WileyPlus to enable students to purchase textbook-customized access to these often required homework systems.[24]

Assuming similarities in the adoption review process for commercial and open textbooks and similarities in

quality one might expect high adoption levels for open resources. The following are identified as issues with OER adoption:

- Disbelief and skepticism that freely available resources could be of excellent quality.
- Differing levels of faculty awareness regarding costs of assigned commercial textbooks and their openly licensed equivalents.[25]
- Low levels of faculty awareness of OER options and lack of first hand examinations of OER quality and in the Florida survey, 26.9% had never heard of open textbooks, and 40.2% of respondents had heard of open textbooks but never looked for any. Only 22.3% of respondents had looked at some open textbooks, and 6.0% used part or whole of an open textbook in their course.[26]
- Faculty uncertainty regarding OER peer review processes, leading to questions about quality.[27]
- Different expectations between those who want a completed product requiring little to no modification, and those expecting to modify, adapt and remix.
- Difficulty locating OER. While many excellent OER repositories exist, some skill is required to locate appropriate open materials.[28] A 2013 report by the Software & Information Industry Association describes the problem of OER discovery as "disconnected silos and without the necessary mechanisms for making it easy to adopt and use" versus an alternative future of OER content being "as easy to discover and use as commercial learning content."[29]
- Lack of availability and difficulty finding educational resources in disciplines where content goes out of date quickly or in highly specialized subjects.[30]
- Faculty concerns regarding potentially negative responses from colleagues regarding OER adoption, and impact on faculty promotion and tenure.[31]
- Course redesign, especially replacement of textbooks with non-textbook OER, takes a lot of faculty time.

Opportunities for Libraries

Many opportunities exist for libraries to lead OER use and production initiatives. Since anyone can access and use openly licensed materials, unique opportunities likely exist especially for public facing and publicly funded institutions, including public libraries and state funded public educational institutions which seem to be asked to do more with less. Furthermore, teachers, students, and library patrons of these institutions are perhaps the most obvious initial beneficiaries and end-users of open educational resources. Locally, the Virginia Community College System has been very active incentivizing development of free and openly licensed materials for nearly 70 courses.[32] A notable example is Tidewater Community College's "Z Degree,"

which replaces textbooks with OER, resulting in a zero textbook cost degree.[33] While project organizers did not initially partner with the library in development of the Z Degree, this author is pleased to see that the library is now involved, per their detailed OER Research Guide.[34]

Given their focus on research, OER textbook authoring/publishing initiatives tend to reside at four-year colleges and universities. Several non-library entities in the U.S. and Canada are involved in open textbook authoring and production including:

- British Columbia Campus' Open Textbook Project focuses on creation, review, and adaptation of college intro-level open textbooks.[35]
- OpenStax College at Rice University focuses on creation of commissioned and peer-reviewed intro-level open textbooks, collaboration with mainstream commercial educational technology providers (i.e. WileyPlus, SaplingLearning, etc.), and development and free access to a Cognitive Science informed personalized learning e-tutor referred to as OpenStaxTutor.[36]

Library initiatives often go beyond open textbook publishing to also include open textbook adoption, and textbook replacement or OER course redesign initiatives:

- Open SUNY Textbooks is a State University of New York wide-open textbook publishing initiative.[37]
- Temple University Library's Alternative Textbook Project assists faculty in developing and adopting alternatives to textbooks.[38]
- Kansas State Libraries allocates funds from the Kansas State Student Governing Association for development of Open/Alternative Textbooks.[39]
- Emory University's Emory Open Education Initiative trains faculty to create and use OER and library materials in lieu textbooks in support of student learning.[40]
- The UCLA Library Affordable Course Materials Initiative incentivizes "instructors to use low-cost or free alternatives to expensive course materials."[41]

Other library-oriented OER initiatives work to ease barriers to finding open or lower cost educational materials, such as San Jose State University's Affordable Learning Solutions guide by college, or in the case of the University of Minnesota's Open Textbook Library to create infrastructure to more easily find peer reviews and open textbooks.[42] Still other libraries are involved in large University-wide initiatives, such as Open.Michigan.[43] Many libraries wishing to reduce barriers and student costs have implemented textbooks-on-reserve programs or programs purchasing multi-user licenses for e-textbooks as a way to increase student access to textbooks.[44]

In their 2010 Open Education conference presentation entitled "Reaching the Heart of the University: Libraries and the Future of OER," Kleymeer, Kleinman, and Hans make multiple compelling arguments for university library involvement in OER production and publication operations. These include philosophical convergence: "Academic OER initiatives and university libraries share a determination to improve access to all kinds of scholarly and educational materials, both on their campuses and throughout the world"; infrastructure: libraries already have search and discovery systems, copyright expertise, data storage, metadata and indexing, institutional repositories and preservation expertise; and relationships: libraries have trusted relationships enabling outreach and education, curriculum development expertise, instructional support.[45]

Existing library values, relationships, capacities, and infrastructure are extremely complementary to OER initiatives within libraries. Many existing library competencies may be leveraged in support of OER adoption and/or authoring initiatives.

Applying these library strengths and competencies to the OER lifecycle stages in the User/Repurposer OER lifecycle reveal the following opportunities libraries have to lead, support and collaborate in OER initiatives, making it easier for OER adopters and potential OER authors:

1. Assess your potential audiences and build awareness
- Every institution's (and probably every department's) faculty, student body, and policies are different. Build your and your library's understanding of your potential audiences, particularly educational resources they already use, author, or assign. Identify their decision-making processes, what they value, what they say they need, what you can learn from them, and how you could engage. For example:
  - An audience of faculty experimenting with flipping their courses may be very interested in types of resources to consider, using library reserves, relevant library-subscribed resources, and finding items in the public domain or licensed with Creative Commons.
  - Faculty, Graduate Teaching Assistants, and textbook selection committees may not have seriously considered looking at openly licensed textbooks.
  - Instructional designers may know much more about what faculty need.
- Identify problems and treat them as opportunities. These could be institutional policies that prohibit sharing, awareness issues, a lack of relationship with the university Bookstore, needs for further professional development, etc.
- Assess and further develop your audience's understanding of open vs. free online.[46] Free online access

does not equate open licensing nor release one from Copyright compliance. Building awareness of open licensing into copyright instruction, emphasizing understanding of various Creative Commons licenses, and training teachers and students to find and cite openly licensed works can be a major victory in encouraging OER use, adoption, and open licensing. Raise awareness regarding potential contributions of open licensing.[47]
- Share the work. Build communities of practice among OER authors, OER adopters, and those exploring OER options. Encourage critical discussion regarding possibilities, drawbacks, and potential opportunities for participation in the OER ecosystem by faculty from a wide range of disciplines.
- Innovate: Engage others in envisioning new uses for openly licensed works.

2. Analyze & Find:
- Understand your audience's needs. Your audience may include both users and authors. Some may already be authoring or using OER.
- Educate, assist, and enable potential re-users with strategies for finding OER. Of particular interest are:
  - Providing reference and research services for users seeking OER
  - Creating OER finding, instructional design, and pedagogy guides
  - Curating, providing access and stable hosting for, and leveraging library-selected OER collections
  - The Open Professionals Education Network[48] which provides a finding guide listing many major repositories and referratories of open educational resources, including: images, video, music, courseware (syllabi, lectures & transcripts, readings, problem sets, textbooks), and online simulations and tutorials.
  - John Shank's *Interactive Open Educational Resources: A Guide to Finding, Choosing, and Using What's Out There to Transform College Teaching* (Jossey-Bass/ACRL 2014)
  - Several library-produced OER finding Guides from the University of Oklahoma, University of Massachusetts – Amherst, and UMN Open Textbook Library.[49]

3. Review, Redesign/Redevelop & Adopt
- Provide authoritative assistance and OER development and review resources with rubrics such as those from Achieve, Inc., temoa, BCOER or from OER repositories.[50]
- Consider incentivizing faculty development/redevelopment of courses and resources for teaching and learning.[51] Most of the OER initiatives listed on earlier pages incentivize faculty reviews and authoring.

- Assist faculty with copyright, intellectual policy and, University Policy concerns.
- Promote quality in content, instructional/pedagogical design, technological standards, and accessibility.[52]
- Provide or liaise with others who provide course design assistance, funding, or course-release.
- Seek to understand faculty/teacher choice in formally adopting (or abandoning) open resources as a way to better understand your users' needs and OER uses and limitations.

4. Implement (and share)
- Assist faculty in providing long-term stable access via information repository services; leverage metadata and classification skills to enhance future access
- Make on-demand printing services or other methods of access easy for authors and users

5. Evaluate (and share)
- Encourage, incentivize, or automate sharing authors' works in trusted networks, local, subject, and/or national repositories
- Encourage (or incentivize) faculty participation in critical reviews. Especially metadata includes how they OER was used, what worked, and what didn't work. UMN Open Textbook Library, MERLOT II, and OERCommons all promote open peer review.[53]

Many faculty members author original works for commercial, non-profit, association, or other publishers. Publication of teaching-related materials is not always weighed the same as research publications in the eyes of tenure and promotion committees. While all faculty would benefit from departmental support, course-release time, and OER creation stipends, tenure track faculty may benefit more than tenured faculty in receiving these types of support. Tenure track may face and perceive a higher level of peer scrutiny based on their tenure track status and related expectations. While departmental support for authoring openly licensed works for teaching varies from one department to another, some departments reportedly hold an explicitly negative view toward adoption of openly licensed works. This results in dis-incentivizing not-yet-tenured faculty from adopting or authoring open works.

Textbook authoring is labor intensive. While faculty typically don't author textbooks for the financial gains involved, financial incentives are generally not turned away.[54] For a small number of authors these gains can be significant; for most they are relatively modest. In the case of Virginia Tech, revenues generated from "traditional works of scholarship" (i.e., books and articles) are not subject to the University's profit

sharing agreement; the faculty member retains 100% of contractually agreed upon royalties.[55] According to David Harris, a veteran of the publishing industry and Editor in Chief of OpenStaxCollege at Rice University, commercial textbook authors typically receive between 10–15% of a textbook's net price. Thus, authors of bestselling textbooks, the top five to ten textbooks per discipline do very well financially; other authors' revenues are not nearly as significant.[56] OpenStaxCollege, funded through a variety of grants and through partnerships with commercial software vendors, has developed a professional content development process, and pays authors and peer reviewers for their work.

Other groups and associations are exploring OER and other publishing initiatives through libraries, including:
- The Library Publishing Coalition (LPC). This group, which began in 2012, is now a collaboration of over 50 libraries. An independent and a community-led membership association, "the purpose of the LPC is to support an evolving, distributed range of library publishing practices and to further the interests of libraries involved in publishing activities on their campuses."[57]
- SPARC Libraries & OER Forum. The forum, an email discussion list with occasional teleconferences, was started in March 2014 and is a "forum for librarians... to share ideas, resources, and best practices pertaining to OER; a channel of communication...; and a source of important updates about policy, research, projects and other news from the broader OER movement."[58]

Many course redesign programs offer faculty incentives for completion, assessment, and launch of redesigned OER courses. This is an area where a number of libraries are involved in identifying OER or subscribed library materials, consulting regarding application of instructional design principles, pedagogies, and providing stipends or incentives for faculty.

Libraries may also wish to survey faculty regarding gaps in content for their courses. Faculty from various disciplines report a deficiency of high quality, commercially available materials.[59] As existing Open Educational Resources (OER) are available only in subject areas where authors have chosen to apply open licenses, perhaps these areas are potential places for authoring of new open educational resources, including resources that go beyond flat PDF textbooks and incorporate interactive and multimedia elements. Libraries may want to also assist faculty who are creating materials in understanding their options as copyright holders. For faculty who wish to share their resources, understanding the intent of the various Creative Commons licenses is important, as is applying them, and sharing materials

in the most appropriate local, national, international, or subject-specific repository.

Finding high quality, current, and relevant resources, ensuring their stability, and educating for copyright compliance are difficult tasks. Each of these areas is a potential teaching and service opportunity for academic libraries.

One final note: while this paper has mostly discussed faculty as the main audience for information, awareness and support from OER initiatives, many opportunities exist to engage students' interests in the open licensing, remix culture, Creative Commons, their choices as authors, responsibilities as users of licensed materials, and their experiences as buyers and users of learning resources.

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Link	Icon	Licenses	Author **allows** users to	Author **requires** users to	Author **restricts** users from
creativecommons.org/ licenses/by/4.0		**CC BY**	Copy, distribute, display, perform, and remix the work.	Attribute or credit the author as requested.	
creativecommons.org/ licenses/by-sa/4.0		**CC BY-SA** (CC BY Share Alike)	Copy, distribute, display, perform, and remix the work.	Attribute or credit the author as requested. Apply the same CC license used by the author to the derivative work.	
creativecommons.org/ licenses/by-nc/4.0		**CC BY-NC** (CC BY Non-Commercial)	Copy, distribute, display, perform, and remix the work.	Attribute or credit the author as requested.	Copying, distributing, displaying, performing, or remixing the work for commercial purposes.
creativecommons.org/ licenses/by-nd/4.0		**CC BY-ND** (CC BY No Derivative Works)	Copy, distribute, display, and perform verbatim (unchanged) copies of the work.	Attribute or credit the author as requested.	Remixing or creating derivatives of the work.
creativecommons.org/ licenses/by-nc-sa/4.0/		**CC BY-NC-SA** (CC BY Non-Commercial, Share Alike)	Copy, distribute, display, perform, and remix the work for non-commercial purposes.	Attribute or credit the author as requested. Apply the same CC license used by the author to the derivative work.	Copying, distributing, displaying, performing, and remixing the work for commercial purposes.
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Vinton Library

Raleigh Court Library

HBM
ARCHITECTS

Predatory Publishing:
How Not To Fall Prey

by Craig Arthur

Dear Colleagues/Professors/Authors/Librarians/Other,

We would like to call people to participate as peer reviewers and submitters in the following journal: The Universal Journal of Library Studies.

Our most humble goal is to globalise knowledge. If you have unpublished papers, our journal (UJLS) is aN avenue for online publication. Please submit your works thought email (ktcpg@hotmail.com) We will be excited to be your publisher. UJLS is a monthly journal that is open access and reviewed by peers. We help people to get credit for their work and we help edit the works by providing you with comments of experts. Reviewers will be on the list.

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Best Regards,

Michael Jones
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Tel: +2813308004
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*H*ave you received an email that looked eerily similar to this one? If you have, you were likely part of a predatory publisher's fishing expedition. If you are yet to receive this kind of brash solicitation, you will probably find at least one when you check your spam folder.

The number of gold open access journals, freely available journals sometimes supported by article processing charges, has steadily increased over the past decade.[1] According to a recent report roughly eight percent of journals with impact factors are open access.[2] With hundreds of identified existing predatory publishing companies, it is difficult to fault our teaching partners and/or students if they fall for a predatory publisher's solicitation.[3] Academic librarians are arguably any campus' best-suited guides to the quickly changing academic publishing landscape and have much to gain from leading the discussion. Library sponsored workshops on open access publishing opportunities and hazards provide an excellent opportunity to further strengthen outreach to both faculty and graduate students.

While open access publishing opportunities cannot be described as a simple duality, there are definite indicators that an opportunity may not be what it claims. Librarians must consider the nuance and grey area of academic publishing as the models of publishing continue to evolve.[4] This article will (re)familiarize librarians with helpful tools that empower us to serve as effective advocates for members of our campus communities as they evaluate options for publishing their research.

Warning Signs

Unsolicited emails offering seemingly appealing publication and editorial board opportunities regularly flood our inboxes. While not all predatory publishing operations operate in such a crass manner there are numerous red flags that routinely appear in solicitations from counterfeit journals.

Questionable solicitation emails typically contain grammatical and syntax errors.[5] Unidiomatic use of English is often a sign of an overseas predatory publishing operation. Their awkwardness knowing no bounds, solicitors routinely dredge the Internet for conference programs and insert entire abstracts into their emails in hopes of feigning familiarity with a potential victim's work.

Craig Arthur serves Radford University as an instruction librarian. When he is not attempting to convince undergraduate students that research can be both fun and life changing, he enjoys DJing, whitewater canoeing, and collecting spam emails.

It is rare for a non-predatory journal to make promises of quick, hassle-free publication to authors. Predatory publishers routinely make this claim. Speedy publication is often possible because there is rarely a peer review process to slow things down. Explicit "cold call" blanket offers to serve on an editorial board should also cause pause. Individuals who agree to serve on the board of a predatory journal often find it difficult to force publishers to acknowledge and accept resignations.[6] Some journals have gone as far as to add academics to their editorial boards without first asking their permission.[7] Contacting editorial board members directly provides valuable insight and is one of the best ways to determine a journal's legitimacy.

In the sample email, the counterfeit journal was not yet indexed but the solicitor indicated that it would be soon. This is another common sign of predatory publishing.[8] If a journal is not indexed it may be difficult or impossible to find content in the future. What good would it do anyone to publish research in a largely inaccessible journal? As librarians, we know how difficult it can be to track down articles in even legitimate, if esoteric, journals. Imagine the difficulty of finding an unindexed ten-year-old article that was published by a fly-by-night below-board operation that is no longer existent.

> ... predatory publishers
> often use this tactic
> as an appealing hook.

Did you notice that the solicitor's email address was provided by a free email service? This is yet another red flag. Also, it is unclear where publishing is based. Predatory publishers often obscure their true locations to appear more legitimate.[9]

It is by no means uncommon for open access journals to charge authors article processing fees. However, these fees should be stated in a forthright and honest manner.[10] It is rare for a reputable open access journal to solicit submissions with extremely limited promises of free publication; predatory publishers often use this tactic as an appealing hook. While several open access journals have fee waivers for which authors can apply, the terms are rarely this restricted.

Open Access Resources for Evaluating Publication Opportunities

The Directory of Open Access Journals (http://www.doaj. org) provides pertinent information on each of its nearly 10,000 listed titles. Operating for the last eleven years, it aims to be "a one-stop shop for users of open access journals." Its coverage includes all scholarly and scientific subjects and all journals have researchers as their intended audiences. Numerous languages are included and the advisory board has a decidedly

international reach. Notably, all journals featured must make their content available for free in full text and, keeping true to the goal of being a "one-stop shop," the content is directly available via the site. *The Directory of Open Access Journals* considers the quality control of each journal before they are added. According to *DOAJ*, quality control is defined as either peer or editorial review. In an effort to better serve as a "white list" of only trustworthy publishers, *DOAJ* recently tightened its listing criteria.[11] *DOAJ* presently adds approximately three and a half titles per day while weeding somewhere around two hundred titles a month.[12]

Open Access Scholarly Publishers Association's website (http://www.oaspa.org) is another valuable resource when publication opportunity questions arise. *OASPA's* Code of Conduct and "whitelist" of publishers is especially helpful. The importance of peer review, the value of expert editorial boards, the explicit statement of any and all publication fees, and limited direct marketing are all important concerns to the organization's members. These guidelines are useful when evaluating the practices of potential publishers.

A similar code of conduct is available from the *Committee on Publication Ethics* (http://www.publication-ethics.org). This nearly twenty-year-old organization includes situational flowcharts, specific examples of the organization's code of conduct in practice via a searchable database of cases, and position statements. Like other professional organizations, more resources and counsel are only available to full members but *COPE* does provide free access to many documents to non-members. While beneficial, criteria listed by *OASPA* and *COPE* often lags behind trends of academic publishing, so at times it may be dated and incomplete.

Beall's List of Predatory Publications (http://scholarlyoa.com/publishers/) is a freely available listing of many predatory journals found on the personal blog of the University of Colorado Denver's Scholarly Initiatives Librarian Jeffrey Beall. Beall is the only librarian (at least in recent memory and not adjusted for inflation) to be threatened with a billion dollar lawsuit due to his work.[13] He coined the phrase "predatory open access journals" and for several years has been the highest profile librarian, and, more often than not, critic, in the open access discussion. The product of a contentious figure and a one-person shop not without limitations, his site is worth reviewing.

Subscription Resources to Vet Publication Opportunities

Another resource is *Ulrich's Periodical Directory* (http://www.serialssolutions.com/en/services/ulrichs/). In addition to indexing academic journals, Ulrich's seems to index anything that currently is or was at one time published periodically. It does not provide the level of detail for each listed title that *Cabell's Directory of Publishing Opportunities* does, but it does list all of the respective abstracting and indexing databases and provides information on the online availability for each of its 300,000 titles. This makes *Ulrich's Periodical Directory* a superior resource for verifying a journal's index and abstract availability.

While much narrower in breadth, *Cabell's Directory of Publishing Opportunities* (http://www.cabells.com/) is also a helpful tool. *The Directory* is a subscription resource many librarians already know. With nearly a forty-year history and over 8,500 titles listed, *Cabell's Directory of Publishing Opportunities* is one of the longest standing and largest of publication vetting tools. *The Directory* covers journals in the areas of accounting, economics and finance, management, marketing, education curriculum and methods, educational psychology and administration, education technology and library science, psychology and psychiatry, computer science, health administration, and nursing and provides detailed information on validated journals, calls for submissions, and rankings. *The Directory* lists topic areas, acceptance rates, and publication guidelines for each of its entries. The review processes, number of reviewers, time required for review, and availability of reviewers' comments are listed for each journal as well. Journals are ranked in *The Directory* by citation count, difficulty of acceptance, and institutionally by specific topics. Open access journals are included in *The Directory* but understandably the majority of the listings are for traditional, for-profit journals. *The Directory* also accepts recommendations for journal listings and assesses each suggested title critically before inclusion. Journals are considered on the basis of their intended audience, relevance to the fields covered by the database, sponsorship by professional organizations and/or government agencies, the quality of content, and the thoroughness of the peer-review process. Speaking to the nuance inherent to modern academic publishing, *Cabell's Directory of Publishing Opportunities* lists *Virginia Libraries* review process as "editorial." The articles in this issue, however, received a full peer review.

> **Fostering dialogue on our campuses can help our teaching partners and students avoid falling prey.**

Conclusion

The past decade has seen many changes to long-standing academic publishing models. Predatory publishing, a consequence of the open access publication model that sometimes uses article processing charges, will likely continue to be an issue for the foreseeable future.[14] Fostering dialogue on our campuses can help our teaching partners and students avoid falling prey. As publication models continue to evolve, so do the multifaceted responsibilities of academic librarians.

Acknowledgments

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Contextualizing Copyright:

Fostering Students' Understanding of Their Rights and Responsibilities as Content Creators

by Molly Keener

*I*ntersections between scholarly communication and information literacy are increasingly being explored by librarians, both on campuses and in conversations with colleagues.[1] Traditional information literacy instruction topics are related to the core issues in scholarly communication, although often instruction librarians and scholarly communication librarians address these issues from different directions. An over-arching theme to these issues is one of openness: who can access what, from where, for how long, to what end.

As a scholarly communication librarian at a mid-size liberal arts university that in the past two decades has strengthened its research profile, I view faculty as my primary constituency. Nevertheless, through our credit-bearing library instruction program, and close ties to the Graduate School in support of our Electronic Theses and Dissertations program, I frequently interact with students. Through guest lectures and targeted support, I have opportunities to instruct students on copyright, author rights, open access, and the scholarly publishing system. In so doing, I help them understand their roles as creators and contributors to the knowledge ecosystem.

Content Creators

The Z. Smith Reynolds Library at Wake Forest University offers sections of a 1.5 credit-hour information literacy course (LIB 100) to undergraduate students at the 100 and 200 levels. When first launched, the library's instruction program was structured such that the majority of librarians taught or co-taught at least one section of LIB 100 each academic year. As demand for LIB 100 increased, the instruction program was realigned under three lead instructors responsible for teaching 10–12 sections each semester, with each section lasting a half-semester.

As the scholarly communication librarian, I routinely guest lecture on copyright and intellectual property, a core component of our LIB 100 course content. Initially, my lectures on copyright and intellectual property were just that: lectures, with slides, about the history and development of copyright in the United States, and explanations of how copyright and intellectual property are issues that extend beyond academic settings. I also addressed plagiarism, as the Dean of the College specifically requested integration of plagiarism instruction in LIB 100 courses.

To make the copyright guest lectures more engaging, and to test students' baseline knowledge of copyright and intellectual property, I incorporated real-time polling software questions into my lecture slides. Students would use "clickers" to submit their answers. Colleagues had been using clickers in our instruction

> **… I incorporated real-time polling software questions into my lecture slides.**

Molly Keener is the Scholarly Communication Librarian at Wake Forest University, providing consultation and education services on copyright, author rights, Open Access, scholarly publishing, and funder public access policy compliance. She manages faculty scholarship collections in the institutional repository, supports library faculty with fulfillment of their Open Access policy, administers the University's Open Access Fund for publication support, works with the Graduate School's Electronic Theses & Dissertations program, serves as liaison to two academic departments, and guest lectures on copyright and intellectual property in undergraduate and graduate courses. In 2011, Keener was named an Emerging Leader by the American Library Association. She has a BA in English from the University of North Carolina at Chapel Hill, and earned her MLIS from the University of North Carolina at Greensboro.

program in other ways, so the technology was available and often familiar to students. Using clickers increased student engagement during lectures, and provided moments of levity when students would audibly bemoan their incorrect answers.[2]

Following the successful integration of clicker questions, a colleague on our instruction team, Joy Gambill, approached me with the idea of further increasing student engagement by dispensing with a lecture altogether in favor of requiring the students to answer real-world copyright scenario questions, using the lecture slides as a "textbook." This coincided with revision of our LIB 100 course objectives, which include goals for distinguishing free and reliable resources, the ethical issues of plagiarism, the process of scholarship and publication, and defining intellectual property.[3] To that end, helping students understand their rights and responsibilities as content creators and contributors, particularly in the public sphere online, increasingly became the focus of my lectures. It is well and good for students to know the basics of what types of works copyright protects, and why copyright protection is granted, but without the context of how this applies *to them*, there is a risk of missed opportunity for helping them understand that "free" and "open" have different contextual definitions with respect to intellectual property.

As experimentation with varied instructional techniques within our LIB 100 program have been welcomed, my colleague and I collaborated to develop 10 copyright and intellectual property scenarios for use in instruction.[4] At the beginning of my class visits, students are put into pairs or small groups, assigned one to two scenarios, and provided a link to my lecture slides, which include notes, to use as their "textbook." After 10–15 minutes of work time, the class reconvenes, and each scenario is read to the class and students give their answers. I assure students at the beginning that their grade for the day is based on participation, not accuracy, as invariably several of the groups will have arrived at incorrect answers. I also tell students that if, during the course of our conversation about the scenario answers, they elect to alter their original answer, to be sure to share both the original and the revised answer, with justification.

The scenarios are meant to guide students' understanding of intellectual property beyond the structures of research and the academy. Most students are unaware that they own copyrights, or that simply because a photograph is free to access online does not mean that it is free to be reused. As classes work through the

scenarios, our discussion affords opportunities to impart basic knowledge about copyright and intellectual property—types of works protected, rights granted to creators, what fair use is, that the public domain has legal definition—as well as opportunities for students to ask intellectual property-related questions.

Many student questions are related to news reports of lawsuits over, or allegations of, infringing activities. Although prior to this class they may not have been able to articulate their awareness of issues of openness related to intellectual property, they are in fact aware of such issues. Recent semesters' questions have included the former Taco Bell interns' claim of inventing the Doritos taco, and the Beyoncé choreography infringement.[5] I am also able to reference interesting news stories that underscore the misunderstanding of intellectual property, notably trademark, referencing the Tuscaloosa baker, and novel cover art, controversies.[6]

The goal of the scenario exercises is not to significantly challenge the students, or put them on the spot for sharing incorrect information before their peers, but rather to generate thoughtful conversation in the class. As such, the questions are not exceedingly difficult or lengthy. They are also ordered to build understanding of copyright as we work through them. The first two scenarios address how copyright happens, and what copyright entails:

> Josh has written a research paper for his organizational psychology class. Does he have copyright to his paper? If so, when did his paper fall under copyright?

> Sarah wrote a very interesting novel titled *Behind Closed Stacks*. She was thrilled when the publisher agreed to print 5,000 copies, but sales did not take off. A couple of years after her book was published, she went to a film festival to see an independent film with the same title as her book. She was shocked to see the exact story from her book being shown on the screen. Is this legal? Why or why not?

From these scenarios, we discuss the principles that must be met before the types of works eligible for copyright, which is covered in a later scenario, can be copyrighted: originality, creativity, and fixed, tangible expression. We also discuss that copyright, although it sounds singular, is actually a bundle of rights. Students readily grasp that making a movie based on someone else's book should not be done without permission,

She was shocked to see the exact story from her book being shown on the screen.

although before this class they may not have known that it was because doing so is a right protected under copyright. This scenario also provides an opportunity to discuss what copyright does not protect: facts, data, ideas, titles, logos and branding, methods, and useful articles. Skeptical that titles can be duplicated, students are nevertheless usually able to provide examples when prompted. A recent duplicate title example that I reference if they are stumped is the 2013 publications of two works of fiction within two months: *Life After Life* by Kate Atkinson, and *Life After Life* by Jill McCorkle.[7] Furthermore, this scenario frequently leads to questions about fan fiction, and the ethical and legal implications of appropriation of authors' copyrighted characters and worlds for fan-created works beyond the canon.

One scenario addresses a family vacation photograph posted online that was later appropriated for use on a website, which leads to discussions of free to access versus free to reuse, and how the public web is not the equivalent of the public domain. I am able to introduce students to Creative Commons licenses, and tell them how to limit image searches online to only search for images licensed for reuse.[8] We also discuss that the copyright owner of a photograph is the photographer, not the subject—even if taken using the subject's own camera or cell phone. Frequently, the way we operate in our culture of sharing, where we commonly post photographs taken by others to various social media websites without once thinking that we might need permission to do so, is technically out-of-step with what our copyright law stipulates.

Another scenario about downloading and distributing digital music files prompts debate, and almost outright argument, about the ethics and legality of sharing such files. Arguing that the risk is minimal and the copying so easy, students attempt to persuade me that they are justified in sharing. My counterargument is to provide a slightly revised scenario for their consideration, shifting the sharing of copied music to a photocopy or scanned file of an entire book. That slight shift, while not perfectly analogous, is sufficient to reorient their thinking of music files as individually copyrighted works. It should be noted that the introduction of DRM-free digital music files, and the failure of most of us to read terms of service agreements, complicate a straightforward discussion about sharing. Conversation on this scenario is further complicated because students usually are unaware that they do not own digital music and e-book files in the same way that they own CDs and print books, and therefore, they do not realize that the first sale doctrine does not apply to our digital content, hence the absence of online marketplaces for used MP3s and ebooks.[9] This is one scenario where I acknowledge that I am on the edge of my own copyright experience, as I am not asked about digital music file sharing in the normal course of scholarly communication support. Nevertheless, I believe it is critical to include this scenario in my instruction, despite my own less-than-perfect knowledge, to raise students' awareness that the legal principles applied to physical items do not always apply to digital equivalents.

My favorite scenario frequently leads students into doing unnecessary math to determine their answer, and stages discussion about the length of copyright term, the public domain, and fair use:

> You are taking a Victorian literature class, and for your final project, you decide to create a comic based on Charles Dickens's *Great Expectations*. Is this legal? Why or why not?

Many students justify their "yes, this is legal" answer by noting that copyright lasts for the lifetime of the author plus 70 years (life plus 70), and that Dickens has been deceased for well over 70 years, therefore his novel is no longer under copyright. While the answer is correct, the justification is incorrect, as the length of copyright term was not life plus 70 when Dickens was originally publishing, and his works are in the public domain. Beyond discussing what drove the length of copyright term from 14 years to life plus 70 for non-work for hire or anonymous copyrights, I am also able to explain why the public domain is, in essence, frozen at 1923, and how changes to copyright law throughout the 20th century contributed to the orphan works problem.[10] I also propose an alternate scenario, exchanging Dickens for a contemporary author, whose works are copyrighted, leading into a discussion about fair use, and also about the need to attribute the work to avoid plagiarism.

Using real-world scenarios in my copyright and intellectual property guest lectures introduces an element of chance to my instruction that, at times, has been challenging. I have had the son of an intellectual property lawyer in a class who posed questions about most discussion points, albeit in a friendly manner. I have had another student ask why the proposed Stop Online Piracy Act was deemed terrible, wondering why it would be bad to be proactive about stopping online piracy.[11] I have had business students whose perspectives on copyright favor strong corporate benefit. And, as Wake Forest increases our international undergraduate population, I have students who are from countries where intellectual property infringement and plagiarism are sometimes tolerated under different cultural norms than those of the United States. The flexibility required to teach in this manner holds me accountable to maintaining current awareness of copyright and intellectual property law as it is interpreted by the courts and discussed by lawmakers, and requires that I enter the classroom ready to engage with the unknown.

Disciplinary Differences

In addition to our LIB 100 course, we also offer 200 level research methods courses by broad discipline. Usually taught every one to two academic years, these courses provide opportunities for undergraduates to hone their research skills through exposure to field-specific library resources and completion of research projects. The library offers courses for students majoring in disciplines within the humanities, business and accounting, social sciences, and sciences, as well as one on the history of the book.

When asked to guest lecture in 200-level courses, I am often teaching students who are likely to pursue graduate studies in their disciplines. As such, these guest lectures afford me the opportunity to bring core scholarly communication topics into class discussions in concrete terms, providing information to students who will one day be scholars. Introducing them to the scholarly publishing cycle, the economics that influence publishing and libraries, the role of peer review, authorship ethics, open access, and impact metrics not only helps them be more astute users of scholarship, but also provides insight that they can incorporate into their developing scholarly identities.

In our course for science majors, I am teaching students majoring in biology, chemistry, physics, or health and exercise science, as well as pre-medicine students, regardless of major. Commonly, these fields are the ones where open access publishing and archiving is firmly established, and more broadly accepted as legitimate. The confluence of assorted fields in a single classroom affords opportunities to discuss how open access is supported in some fields primarily through archiving (e.g., high-energy physics and arXiv.org), while in others there has been broader support for publishing. We also have opportunity to discuss the role that grant funding agencies are playing in advancing public access, particularly to taxpayer-funded research, such as the National Institutes of Health Public Access Policy, and how public access and open access are interrelated but not synonymous.[12] Increasingly, I am addressing open data, and helping students understand that data cannot be copyrighted but it can be owned, and how that differentiation plays a role in data policies from funders and publishers.[13]

In our social sciences course, classroom discussion commonly focuses on the misperceptions that exist between different fields within the social sciences, depending on whether fields are driven primarily by journal versus monograph publishing. As an open access advocate, I have the opportunity to explain to skeptical students what open access is—and what it is not. The ability to help students understand the scholarly communication system and their role and rights in it as scholars is critical for their future contributions.

Fostering Author Awareness

My primary interaction with graduate students comes at the end of their time at Wake Forest. I manage the library's Electronic Theses and Dissertations (ETD) collection, and work closely with the Graduate School, as I am the person to whom students are directed when they have questions about publishing, copyrighting, or embargoing ETDs. By the time I work with graduate students, I am primarily working with individuals whose scholarly identities have already started to be established, especially as many have published at least once during graduate school. Nevertheless, it is frequently the case that students do not understand their rights as authors, or why they cannot automatically include previously published materials that they authored in their ETDs without first determining if they have rights to do so. The "I wrote it, it's mine" misperception is common, and an advantageous learning opportunity.

> The "I wrote it, it's mine" misperception is common, and an advantageous learning opportunity.

To support our graduate students, I offer ETD preparation workshops each semester. In addition to overviewing the submission process, we discuss the need to ensure that any inclusion of others' copyrighted works—including their own previously published works, when the publisher controls copyright—has either cleared fair use assessment or permission seeking. Discussions of self-plagiarism and authorship ethics commonly arise in these workshops. Perhaps the most fruitful aspect of these workshops is the opportunity to explain how copyright vests in the United States, and how as the full copyright owners in their works, the choice they make for their embargo terms is theirs alone, and that how they plan to use their work after graduating is a factor in selecting term length. And because our ETD collection is housed in our institutional repository, there is a natural segue to discussing open access, and that open archiving is a form of open access.

Beyond ETD support, I am occasionally invited to guest lecture in course seminars. I have taught students about the National Institutes of Health Public Access Policy, and how as future NIH grant recipients, they will need to plan for compliance at the outset of their

award process. I have also lectured on authorship ethics, which invariably lead to lively conversations with students posing many "what if…" scenarios. Graduate students do not always receive explicit instruction on all the myriad issues of being an author, notably on their rights and responsibilities as copyright owners, as their faculty mentors may also not fully understand their rights.

Conclusion

Librarian-led instruction for undergraduate and graduate students often focuses on the discovery and dissemination aspects of the scholarship lifecycle, but usually not on students' roles as content creators in that cycle. However, information literacy opportunities can be capitalized upon to discuss the full cycle, including access issues that introduce students to basics of copyright ownership and author rights. Instruction sessions also can be used to introduce students to Creative Commons licenses, open access publishing and archiving, research funder requirements for public access to articles and data, and economic changes in the scholarly publishing system that create real and artificial roadblocks to information dissemination.

Although only a small percentage of our students will find themselves in research fields in the future, all of us are content creators and users. We are generating intellectual property continuously throughout personal and professional interactions, often without understanding the implications of being rights holders. It is critical that librarians aid our students' understanding of intellectual property, and their associated rights and responsibilities. And for those students who will enter the academy, formal and informal instruction opportunities with future faculty while they are still students should be capitalized, as we are investing in our future scholarly communication constituents.

Notes

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APPENDIX

Copyright and Intellectual Property Scenarios
LIB 100: Accessing Information in the 21st Century

Z. Smith Reynolds Library, Wake Forest University
Joy Gambill and Molly Keener

1. Josh has written a research paper for his organizational psychology class. Does he have copyright to his paper? If so, when did his paper fall under copyright law?

2. Sarah wrote a very interesting novel titled *Behind Closed Stacks*. She was thrilled when the publisher agreed to print 5,000 copies, but sales did not take off. A couple of years after her book was published, she went to a film festival to see an independent film with the same title as her book. She was shocked to see the exact story from her book being shown on the screen. Is this legal? Why or why not?

3. When Mary went to the beach this summer, she found a very large shark's tooth, believed to be a megalodon tooth. Her husband took a photo of a very excited Mary showing off the tooth. After their vacation, he posted their vacation photos to Flickr. Several weeks later, Mary is searching sites for "megalodon tooth" and is quite surprised to see her photo posted on a site selling shark teeth. Is this legal? Why or why not?

4. Elizabeth and Kristy created a mural for their college art class. Kristy gave permission for a local t-shirt designer to copy the mural and use the design on a t-shirt. The company agreed to pay Kristy 10% of sales. Elizabeth finds out about this and is upset that she was not included on the deal. Is Kristy's agreement legal? Why or why not?

5. Many of Amanda's favorite college memories come from her time on the Wake Forest dance team. Her senior year, it was her privilege to choreograph the dance team's half-time show. A year later, Amanda was attending the Wake-Duke football game with her brother and was shocked to see the Duke dance team perform the exact routine she had choreographed. Is this legal? Why or why not?

6. While home during the summer, you helped your cousin set up his iTunes account. As a first week of college surprise, your cousin sends you a CD he burned of his favorite playlist he put together. Is this legal? Why or why not?

7. You are taking a Victorian literature class, and for your final project, you decide to create a comic based on Charles Dickens's *Great Expectations*. Is this legal? Why or why not?

8. In the spirit of entrepreneurship, you and your suitemates begin making Demon Deacon mascot cookies to sell on campus and at tailgates. Is this legal? Why or why not?

9. Margaret is running for a student government office, and decides to use the McDonald's golden arches as her campaign logo (M for Margaret). Is this legal? Why or why not?

10. Shannon came to class carrying a new bag that looks exactly like the one you saw in the Coach store, except it doesn't have the Coach logo on it. Is this legal? Why or why not?

Under Construction: Guidelines for Submissions to *Virginia Libraries*

You've already read about the new directions for *Virginia Libraries* on page four of this issue. Over the next year, as Virginia Libraries transforms into an annual, peer reviewed publication, we will be rethinking the submission, review, and publication processes. More information about the new Virginia Libraries will be released over the following months, so be on the lookout for those messages.