On Open Access to Research

The Green, the Gold, and the Public Good

AUDRA K. ROACH & JESSE GAINER

We could call it naiveté. Or perhaps we should be more generous and call it idealism. When Audra (first author) recently clicked a button on Academia.edu (a social network for scholars), she instantly uploaded her peer-reviewed journal article so that everyone—anyone in the world who wanted to look—could see it. The trouble: Audra (now red-faced) did this without checking the copyright agreement she had signed with her publisher. Her intent was harmless; in fact, it was better than that. Her intent was in keeping with what Daniel Coit Gilman (1880), the first president of Johns Hopkins University, argued were among the noblest duties of the academy: "to advance knowledge and to diffuse it, not merely among those who can attend the daily lectures, but far and wide."

Plus, she found the technology of Academia.edu to be so fetching: an efficient network for disseminating research, registering close to 2 million users (an estimated 10% of academics globally) and 4.5 million unique visitors per month (Cutler, 2012). It also offered analytic tools for tracking readership of her article (e.g., number of views, from which countries, from which referring sites); and the site was optimized for search engines so it

Audra K. Roach is a doctoral candidate at the University of Texas at Austin, USA; e-mail audra .roach@utexas.edu.

The department editor welcomes reader comments. Jesse Gainer is an associate professor at Texas State University, San Marcos, USA; e-mail jg51@txstate.edu.

attracted a lot of readers via Google (Kincaid, 2011). Putting digital tools together with the academic tradition of publishing articles without payment seemed like a good thing to Audra, just as it did to the founders of the open-scholarship movement way back in 2002 who saw these as having the potential to create "an unprecedented public good."

But now a full decade in to our transition to a digital publishing ecology for scholarship, Audra found that she had not only failed in the old ways (to track down the fine print of her copyright assignment) but also managed to fail in new ways (as a scholar in digital literacies with shockingly little idea how to manage rights and options for sharing articles online). Add to her embarrassment that she is a scholar of literacy, a field in which we bear a heightened responsibility to uphold democratic ideals by maintaining the free flow of texts among one another and society (Beach et al., 2007).

And so it was with some conviction that Audra sought out Jesse for support and undertook this article as a call for researchers (and graduate students and educators) to include among their emerging digital literacies an attention to the online circulation of scholarship. In this month's column, we brief *JAAL* readers on the current barriers to publishing scholarship online, and we review digital vehicles for turning good intentions (like just clicking Publish) into more legitimate open access options (repositories and open access journals, also called Green and Gold Open Access). We hope these starting points will be useful for literacy scholars and educators who feel compelled, as we do, to make their research more accessible in the world.

The Problem of Access to Research in Journals

Because publish means "make public." The whole point of a publisher is to make things public... giving papers to a "publisher" that locks them behind a firewall is the opposite of publishing. It's privating. (Taylor, 2012).

Limitations on access today are related to economics, particularly the rising costs of journals and the huge strain this expense puts on libraries at a time when budgets are shrinking. Even considering the cost of printing, the rapidly rising prices of subscriptions have outpaced inflation (Shockey & Eisen, 2012). The current costs reflect the reality that scholarly publishing has become concentrated largely in the hands of profit-driven commercial forces that benefit from restricting the flow of knowledge (Parry, 2012).

Rather than adapting to the new ecologies of publishing, perhaps by charging for the kinds of services that are important today, such as Web-hosting and archiving, "the big, established publishers have overwhelmingly clung to the old pay-for access model," which means that "they invest time and money in building elaborate systems for *preventing* access"; in this way, they impose an artificial scarcity and work against our wishes as researchers by restricting "papers that could—that want to—replicate freely around the world" (Taylor, 2012).

The result is that libraries can no longer afford subscriptions to many journals, and in turn library users have less access to current research literature (Beach et al., 2007; Parry, 2012). This situation recently led Harvard Library (2012), which pays $3.75 million annually for subscriptions, to draft an open letter to the faculty to report the "untenable situation" in which "large journal publishers have made the scholarly communication environment fiscally unsustainable and academically restrictive." In addition, laws related to property rights also limit the possibilities for the use of published pieces. Ironically, the consumers of expensive academic journals are also the ones producing them. The research, writing of articles, and peer reviews are done for the journals free of charge. Those who produce the scholarship then buy it back from the journals.

In this postindustrial capitalist economy, in which publication is based on a scarcity model, a privileged few hold the keys to reproduce and concentrate power (Parry, 2012). Thus the problems of academic publishing are not only economic but also ethical (Parry,

2012). Rising prices of journal subscriptions and limited access to scholarly articles have a more severely restricting effect on parents, teachers, and people in developing countries whose institutions may not have the means to subscribe to expensive journals.

Rather than sharing knowledge for the sake of public good, commercialization of the literature restricts the flow of knowledge for a profit. This situation stifles the free exchange of ideas and open dialogue and undermines the democratic ideals of literacy (Beach et al., 2007). A rich democracy "requires a common free culture on which conversations can be built" (Parry, 2012, p. 5). If the domination of subscriber-only models of publication is now unsustainable from both economic and ethical standpoints, we need to explore other options.

An Open Access Initiative

In large part, the worldwide response to problems of access in research over the past decade has been open access (OA). OA refers to the idea that literature should be "digital, online, free of charge, and free of most copyright and licensing restrictions" (Suber, 2012). Some understand it in strictly economic terms, meaning free of charge to the user (Gratis OA); others understand it in both economic and social terms, meaning free of charge and free to use with minimal restrictions (Libre OA) (Suber, 2008).

Origin stories of the movement often include the Budapest Open Access Initiative (BOAI, 2002), a meeting of international scholars who believed the rich academic tradition for giving away such work without expectation of monetary compensation could be usefully brought together with Internet technology to create an "unprecedented public good," namely a worldwide electronic distribution of journal articles with "completely free and unrestricted access to it by all scientists, scholars, teachers, students, and other curious minds."

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Now, 10 years later at the anniversary of BOAI (2012), these scholars promise that we are "solidly in the middle" of this worldwide campaign and ready to set a next goal: "Within ten years, OA will become the default method for distributing new peer-reviewed research in every field and country." It is easy to appreciate their optimism. Yet other accounts report that progress in OA has been unexpectedly slow as well as uneven—taking off in some fields (e.g., science, technology, and math) but, until recently, largely ignored in others (social sciences and humanities) (Levine, 2012; Parry, 2012). Nonetheless, BOAI has reaffirmed for the next generation the value of the two primary vehicles they originally suggested for spreading OA, which are still the most cited and debated: self-archiving and open access journals, also referred to as Green and Gold Open Access. We describe these for readers next.

Green Open Access

Green Open Access refers to self-archiving, which means making your article accessible by distributing a free online version to an institutional repository or personal website. Repositories are not responsible for reviewing articles. They are digital archives that hold and distribute existing peer-reviewed research; libraries typically administer them. In addition to offering longevity, a key advantage of repositories is that they distribute content in a particular digital format (Open Archives Initiative Protocol for Metadata Harvesting, or OAI-PMH) that allows it to be indexed by Google, Google Scholar, and other search engines, in effect forming a global database for research (Swan, n.d.). This can greatly enhance the visibility of an article.

One way to locate a repository is to check with your institution, because many are establishing their own. Repositories are also available by disciplinary interests, which you can locate through indexes like the Directory of Open Access Repositories (OpenDOAR). There are also universal repositories including sites like Academia.edu (see Table). (Note that the vehicle of Academia.edu wasn't the problem in Audra's case; rather it was her understanding of her copyrights.) Another approach to self-archiving is simply to post your article to the webpage of your institution. But before you choose either approach, you should check that you have permission to do so.

Your copyright agreement may determine whether you can deposit your article in an OA repository; in addition, publishers have different policies that govern which versions may be archived (e.g., before/after refereeing or formatting) or how much time must elapse before you can do so (often 6–12 months) (SPARC, 2012). Check the individual publisher's webpage or the Sherpa/RoMEO database (see Table) to review different publishers' policies. Notably, RoMEO suggests that 67% of publishers allow some form of self-archiving (www.sherpa.ac.uk/romeo/statistics.php). Suber (2012) says that this is one of the best-kept secrets of scholarly publishing: Most non-OA journals already give blanket permission for Green OA; it is up to the author to take advantage of it.

For standard publishing agreements that don't allow Green OA, activists suggest that authors ask permission from their publishers. Many have published addenda that authors can use to modify contracts (see the Open Access Directory). For example, the Scholarly Publishing and Academic Resources Coalition (SPARC) provides a popular addendum that authors can attach to the standard publication agreement to request rights for Green OA (see Table). Of course, some publishers will agree and some won't, but at least you'll know where they stand. (Full disclosure: The SPARC addendum was not accepted by the company that publishes *JAAL* when we submitted it for this article, although they were familiar with it.) Suber (2007) suggests that if you have already assigned copyright to the publisher and you cannot self-archive, you might still deposit into an OA archive the article's metadata (i.e., author, title, journal, date) so that people can learn of your article's existence and contact you for a copy.

Gold Open Access

Gold Open Access refers to OA journals that peer-review and publish articles that then become publicly available. This type of publishing has grown rapidly over the last 15 years (Laakso et al., 2011). Open access journals are sometimes differentiated by their degree of openness, such as Direct OA (no limitations on access to articles), Delayed OA (articles accessible to nonsubscribers after a certain time), or Hybrid OA (articles free after an author or grant or institution pays for the text to be free in an otherwise subscription-based journal) (Laakso et al., 2011). Some journals are free to read, like *Digital Culture and Education*. Others allow more open use, like *Kairos*, which encourages authors to license their work under Creative Commons (see Table) to specify how others can reuse it.

TABLE Open Access Resources	
Resource	**Description**
Scholarly Publishing & Academic Resources Coalition (SPARC) www.arl.org/sparc	A coalition of academic and research libraries allied to expand dissemination of research and reduce financial pressures on libraries. Their site provides news, articles, videos, presentations, brochures, and tools. Their Author Addendum modifies publisher agreements to ensure broad access (bit.ly/9IFOAR). They offer a customizable addendum tool (bit.ly/cJ3gyu). They also sponsor Open Access Week to promote OA worldwide.
Creative Commons (CC) creativecommons.org	This nonprofit provides creators with standardized licenses they can use to explicitly allow others to copy, distribute, and reuse their work. The licenses are free, flexible, and widely used for sharing in digital environments.
Sherpa/RoMEO www.sherpa.ac.uk/romeo	This database includes publishers' policies on whether an author is permitted to self-archive, where, and under what conditions. It indexes policies for over 18,000 peer-reviewed journals and over 1,100 publishers.
Directory of Open Access Journals www.doaj.org	This database includes peer-reviewed journals that don't charge readers or institutions for access. It currently lists over 8,000 journals.
Enabling Open Scholarship www.openscholarship.org	This international organization offers institutions information and advice on policies and processes for opening up scholarship.
Open Access Directory oad.simmons.edu	This wiki is maintained by the open access community. It lists extensive resources on such topics as author addenda, courses about OA, and OA journal business models.
Academia.edu www.academia.edu	Some scholars use this social network platform to share research papers and track their readership. This network currently hosts 1.6 million papers.

Among other organizations making the transition, the Modern Language Association (MLA) has announced that their journals will begin leaving copyright with authors, allowing for access via repositories and individual or department websites (Jaschik, 2012). Authors can locate open access journals via the Directory of Open Access Journals (see Table) or through the Literacy Research Association's list of OA journals specific to literacy research (www.literacyresearchassociation.org).

Of course, everyone understands that publishing research isn't free. Because OA journals do not rely on subscription or access revenue, they must use alternative business models. Some charge a processing fee to authors after an article is accepted, which is sometimes paid for by grants or academic libraries diverting funds from serial subscriptions (Levine, 2012). As the United Kingdom gears up to make all publicly funded research available by 2014, that country's debates over proposed approaches to Gold OA (Finch, 2012) should be interesting and instructive to observe. Meanwhile, a report from the American Educational Research Association's (AERA) working group on OA publishing in the social sciences is expected at this year's annual meeting (Levine, 2012).

Looking across these groups, it is clear is that moving forward will require working together with multiple stakeholders and experimenting with new models and creative solutions. Doing so will require sharing and studying not only our successes as we engage in open scholarship but also our challenges, remaining critical even as we work to create a better system (Veletsianos & Kimmons, 2012). As demonstrated in Audra's story, even the naive or idealist mistakes we make as we learn to become digitally literate scholars can become openings for thinking toward possible futures. In this spirit, we close by inviting you to contribute to the conversation by commenting on this article on the *JAAL* Facebook page. Tell us what you are doing and wondering about OA. We do believe it is worth sharing.

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