

## Open Access Repositories, Copyright Laws, and Digital Commons for Graduate Students

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1. Welcome to Open Access Repositories, Copyright Laws, and Digital Commons for Graduate Students. This presentation is going to cover the basics of Open Access—what Open Access is; its impact on academic publishing; and why graduate students need to know and care about these things.

I'm going to take a brief look at the definition of U.S. Copyright—who holds copyright; how publishing impacts an author's right; what constitutes Fair Use in the digital environment; and what a copyright holder can do to "massage" privileges of use. Finally, I'll discuss DigitalCommons@UMaine, the University of Maine's Open Access Institutional Repository, and the work of graduate students.

2. What is Open Access? Open Access provides free access to literary, scholarly, artistic, historic, or photographic digital content with varying levels copyright and licensing restrictions.

An alternate definition: "free access to peer-reviewed research journal articles" can be used because academics most active in promoting the realm of Open Access have a vision of Open Access eventually encompassing all articles published annually in over 25,000 peer-reviewed journals worldwide.

Open Access repositories provide global, web-based access to archived materials, allowing researchers to overcome economic or geographic restrictions that might otherwise inhibit their work.

Proponents of Open Access see the practice as leveling the playing field for academic institutions that are unable to afford expensive subscription access to print and online journals.

3. The UK Wellcome Trust, a global charity foundation and supporter of Open Access stated the position, "society as a whole is made worse off if access to scientific research results is restricted."

The Scholarly Publishing and Academic Resources Coalition (SPARC), "believes that faster and wider sharing of the outputs of the scholarly research process increases the impact of research, fuels the advancement of knowledge, and increases the return on research investments."

So, really the impetus behind Open Access is the belief that the traditional publishing model restricts access to research results, slowing the rate of information exchange. Advocates view Open Access as a way to build relationships and collaborations, as well as strengthen and accelerate scholarly communication.

4. What's an Institutional Repository? A repository is the physical space reserved to collect and permanently store full-text material in digital format. An Institutional Repository collects and permanently stores full-text material generated and archived by a specific organization or institution.

UMaine's Institutional Repository is known as DigitalCommons@UMaine. DigitalCommons@UMaine is a green, Open Access institutional repository. Fogler Library oversees the repository and contracts with the California-based company bePress, to provide archival server space and technical support for the institutional repository. DigitalCommons@UMaine is available online for uploading, storing, and retrieving the intellectual output of UMaine as well as designated, historic Maine documents.

Next, let's look at some of the confusing terms that are used when describing Open Access.

5. What is Green vs. Gold Open Access? The terms Green and Gold encompass two specific factors: copyright permissions and the cost of publishing and access. Green Open Access indicates the author's retention of posting privileges *in some form* to a FREE open access repository—most often it's an institutional repository or possibly a disciplinary repository.

Gold Open Access refers specifically to publishers of open access journals. In this instance, the cost of production doesn't fall to the subscribers but to the authors who submit materials for publication. *SpringerOpen* is an example of a well-known publisher offering open access journals that require author fees and provide rigorous peer review.

6. What is Gratis vs. Libre Open Access? Gratis Access is free of charge with all rights-reserved copyright, allowing fair use. Libre Access is free of charge and free of all copyright restrictions.

7. Open Access proponents argue for an optimal combination of Green & Gratis Open Access. Green Open Access can theoretically be provided for all journal articles now provided the cooperation of publishers allowing authors to retain copyright permission and self-archive refereed, "post-print" articles.

**8.** Let's take a quick look at a generalized version of the traditional publishing process in this graphic created by Steven Harnad. He's a member of the Electronics and Computer Sciences program at University of Southampton in the UK. This screen capture is from his presentation on *Open Access: Green, Gold, Gratis, Libre, North, South and How to Get There*.

Earlier, I mentioned that the Scholarly Publishing and Academic Resources Coalition maintains the position that "wider sharing of ... scholarly research ... increases the impact of research..." Now, I'll discuss the thought process behind that rationale.

If we look at this diagram, it shows the typical publishing process. It starts with the research and writing of an article. This pre-refereed article, also known as the pre-print, then goes through peer review before being accepted for publication by a scholarly journal. Once published, the article is distributed to the journal's subscribers. Under this model, research impact is restricted by the subscription access. Typically these subscriptions are held by researchers' home institutions which limits the overall "impact cycle," of the article.

**9.** According to SHERPA/RoMEO—that's a collaborative database that provides information about publisher policies and open access—approximately 64 percent of journals allow for self-archiving the pre-print, publisher's version, or post-referee draft of an article. Approximately 8 percent allow for archiving of the pre-referred draft article, while 28 percent don't support self-archiving at all.

This version control issue is an important one because, as a researcher you—in most instances—you're going to want to archive the post-refereed draft of your article. Though the document may not be the final publisher's formatted version, it has all the same content as the post-print or publisher's version.

Research by Mikael Laakso in 2010 found that among 100 of the largest journal publishers, 80.4 percent allowed authors to self-archive either the accepted manuscript or publisher version of an article to an institutional repository or subject repository within one year after publication. Acceptance, however, was significantly higher for posting to institutional repositories—almost 80 percent—versus posting to subject only repositories—about 33 percent.

The important take-away—the piece to internalize and never forget—is to read and understand your publishing contract before signing it. Confirm that you retain your rights to self-archive in your institutional repository, as well as any personal Web page you may maintain.

10. Staying with Harnad's model, provided an author retains the right to self-archive when signing a publishing agreement, the final peer-reviewed draft may be self-archived in the author's green, Institutional Repository, such as DigitalCommons@UMaine, where gratis access increases the potential impact of the research.

Free open access with long-term stable URL and Search Engine Optimization provided by many institutional repositories increases an article's discoverability. The end result is that a paper worthy of citation will receive a higher rate of citations.

11. In 2004, researcher Kristen Antelman showed that significantly higher citation rates do indeed occur for articles housed in Open Access repositories. Most significant in her findings were that articles pertaining to clinical medicine received 193 percent higher citation rates from open access.

**12.** Harnad's 2005 research showed what he and his colleagues refer to as the "Open Access Impact Advantage." It's depicted in this graph that also comes from Harnad's presentation about *Open Access: Green, Gold, Gratis, Libre, North, South and How to Get There*.

It's important to keep in mind that though citation rates are elevated, they will vary from discipline to discipline, from year to year, depending on a wide range of factors. That includes whatever happens to be Hot Topic this year in the world of research.

The bottom line is: repeated studies have shown there is a distinct advantage in terms of research impact and increased citation rates when authors self-archive in Open Access Institutional Repositories, such as DigitalCommons@UMaine.

13. So, what are some arguments against Open Access? Open Access journals lead to increased rates of plagiarism. Open Access journals are low-quality and predatory; they dilute hit counts and generate bogus impact factors.

These arguments center predominantly around a "sting operation" conducted by the journal *Science* in which journalist John Bohannon authored a bogus paper with "critical flaws" and "meaningless results" and submitted over 304 versions of the paper to open access journals. Bohannon claimed that 157 journals accepted the paper and only 98 rejected it.

14 Bohannon's sting operation is not without criticism. Lars Bjørshauge, founder and managing editor of the Directory of Open Access Journals, responded to the "sting" with criticism that Bohannon "selected a small subset of open-access journals to discredit the entire genre."

Michael B. Eisen, an associate professor of biology at the University of California, Berkeley, indicates that Bohannon targeted open-access journals "widely understood to be of low quality" and that prominent open-access journals fared well in the experiment.

15 In the end, Bohannon simply proved that, if you want to be published and are willing to pay a fee, you can get anything published in the online world, including a work that is 100% plagiarized. The most valuable lesson to learn from Bohannon's work is that it is important for researchers to exercise due diligence when seeking out an Open Access publisher and when retrieving material from Open Access. Remember, just because a paper has been published does not necessarily mean it's worthy of citation.

16 Academic pundits admit that the publishing industry is changing and the future lies in online journals, but there are those who are reluctant to let go of the old model. Whether the resistance to Open Access is based on the question of research legitimacy, technology or financial fears, the upshot may ultimately be as much sociological as anything else. When it comes to Open Access, the Gate Keepers of academic influence and reputation have less control when it comes to publishing in Open Access and Institutional repositories.

17 So, why do you care? Open Access is 10 years old and it isn't going away. The 2014 Omnibus Appropriations Bill, passed by the U.S. Congress, requires federal agencies under Labor, Health and Human Services, and Education, with research budgets of \$100 million or more, to provide free, online, public access to articles reporting on federally funded research no later than one year after publication in a peer-reviewed journal. An increasing number of academic institutions mandate self-archiving as a condition of employment and advancement (in other words, tenure).

If you plan on going into the fields of scientific or academic research, these are things you need to know about; these are things you need to care about; and these are things you need to understand in order to manage them to the best advantage in your future career.

**18** It is important to note here that some publishers who view open access as a threat to their subscription-based economics may become more restrictive; increasing the length of publication embargos; outright refusing permission to post to subject repositories; or, as in the case of one publisher, specifically prohibiting self-archiving to authors affiliated with institutions that have an open access mandate.

19 Now, let's turn our attention to the issue of copyright. What is Copyright? It's the right to copy or reproduce a work in any format, digital or analog. It's the right to make derivative works or adaptations. It's the right to control distribution of new copies of the work. It's the right to perform the work publicly or display the work publicly.

20 Who Can Claim Copyright? Under U.S. copyright law, the creator of the original expression of the work is its author. The author is also the owner of copyright unless there is a written agreement by which the author assigns the copyright to another person or entity, such as a publisher. Authors of a joint work are co-owners of that work unless there is a contract to the contrary.

21 What about collective works? Copyright in each separate contribution to a periodical or other collective work, such as a book, is distinct from copyright in the collective work as a whole and vests initially with the author of the contribution.

Now, ownership of a work—a book, a manuscript, painting or other work—does not necessarily give the possessor copyright.

22 Regarding works made for hire; it's the employer, not the employee, holds copyright. This includes: a work prepared by an employee within the scope of his or her employment or a work specially ordered or commissioned ... if the parties expressly agree in a signed, written instrument that the work shall be considered work made for hire.

So, in all of this, where does the term "Intellectual Property" come into the mix?

23 Intellectual property is not the idea behind a work but the original expression of a work. It's the work for which one may apply for a copyright, patent, or trademark.

In a work made for hire, it's the employer not the employee who holds the rights to the intellectual property.

Now, when you sign a publishing contract, you sign away your copyright privileges; you are in essence, selling your intellectual property so it is important that you understand what those rights are and that you value your copyright.

24 You know, it's possible to spend a decade or more of your career researching a particular topic or line of inquiry. Signing away your copyright can infringe on the potential impact that work will have. It's important for researchers and scholars to value their intellectual property rights and protect the future distribution and impact potential of their work. Part of being a respected researcher today is one's

ability to respect and protect one's own work; to know that it has scholarly value; and to understand the potential scope of its scholarly impact.

25 If you sign a publishing contract that preserves key copyright privileges, you can authorize posting your work to Open Access. By transferring exclusive copyright to the publisher, you essentially "sell" your intellectual property and from that point forward, you must receive the publisher's permission to utilize your work in any manner that does not constitute "Fair Use."

If the publisher does not give standard permission for green open access, request an author addendum to the publishing agreement.

26 The specific language used in Transfer of Copyright Agreements varies from publisher to publisher but clues to look for when reviewing your contract includes language that hints at a potential delay in publication if the agreement is not completed and returned quickly and without modification.

Look for language explicitly transferring copyright of the manuscript as well as all supplemental materials, including tables and illustrations, to the publisher.

The contract will also specify the rights retained by the author. If the contract states only that the author retains the right to use the article for traditional scholarship that means you're being granted Fair Use rights only.

27 So, what constitutes Fair Use? The purpose and character of fair use is for non-commercial, non-profit purposes such as teaching or scholarship, or research; it's use for critique or comment. It's the ability to utilize a portion of the work reproduced in light of the whole, keeping in mind the effect of this use on the value of the copyrighted work.

28 What constitutes Fair Use in the online environment? It's the ability to have onscreen access. It's the ability to click links or link to the document. It's the ability to download and even store a document locally or print a hard copy. It's the ability to data-mine an article locally or harvest the article by search engines. It is not, however, the right to re-post or re-publish a work.

29 Publishing agreements are negotiable. Valuing your intellectual property means retaining the rights you want to keep to use your own work without restriction. Publishers today are quite used to working with researchers who want to retain copyright and who want to self-archive in Open Access. Publishers may not come forward with that option in the first contract provided, but they won't treat you like you have two heads for asking. As researchers push for the option, it may eventually become a contract standard. As you shop for a publisher, read the corporate websites for author and copyright information.

30 One option for retaining your copyright privileges is to propose an addendum to the contract presented by your publisher. An example of one such binding agreement is available at SPARC. This agreement provides a balanced approach to copyright management, granting publishers the non-exclusive right to publish and distribute a work and receive financial return.

31 Language in the SPARC publishing amendment ensures the author retains the right to reproduce, to distribute, to publicly perform, and publicly display the article in any medium for noncommercial purposes. It retains the right to prepare derivative works from the article and the right to authorize others to make any non-commercial use of the article so long as the author receives credit and the journal in which the article was published is cited as the source of first publication.

The SPARC agreement also explicitly states that the author "...may post the article on personal or institutional web sites and in other open-access digital repositories."

32 It is possible to copyright your work simply by placing a notice of copyright on your work. This consists of a "c" surrounded by a circle, the date of creation or first publication, and the name of the copyright holder. Presented here are two examples.

What if you wish to protect your work but grant users the right to share, use, or build on your work beyond what's provided by Fair Use?



33 Creative Commons is not an alternative to copyright but it enables authors to define terms of use, particularly for digital content. By using copyright notification alone or combining copyright notification with Creative Commons, contributors to open access repositories, including an Institutional Repository like DigitalCommons@UMaine, they ensure that their work is legally protected from copyright infringement but may be used as part of a collaborative effort yet to be born.

34 With all this information under your belt, what does DigitalCommons, UMaine's Institutional Repository mean to you—the UMaine graduate student? Graduate student work enters DigitalCommons@UMaine via one of two avenues. The first is Electronic Theses and Dissertations. When submitting your thesis you'll be required to sign the Intellectual Property Agreement certifying copyright and ownership, and specifying access restrictions.

It's important for graduate students to read, understand, and fully complete the required form when submitting their electronic thesis. If you plan to publish the thesis in whole or in part at some point in the future, you need to restrict access accordingly.

Specifically, the Electronic Theses and Dissertations Submission Approval Form provides students the option to release the entire work immediately; release the work for access by UMaine students and faculty only; or restrict the entire work for a specific period of time.

If you don't plan on publishing, you should seriously consider granting permission for the thesis to be made available through Open Access in Digital Commons. The bonus to you is the potential for your work to be accessed and cited as the first step in building your academic reputation.

**35** The second avenue for submitting work to DigitalCommons@UMaine is through the Graduate Student Scholarly and Creative Submissions collection controlled by the University of Maine Graduate Student Government. This community is for quality work you've done that may or may not be related to course work and can include essays, conference poster presentations, and other scholarly material you have produced during your graduate career at UMaine. Consult the Graduate Student Government Office regarding submission guidelines.

## Resources

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#### **FINAL SCREEN**

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