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Open Access: An Evolving Alternative

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Although it offers an alternative to the traditional publishing model that makes scholarship freely available digitally without common copyright and licensing restrictions, open access has garnered significant debate.

It's a familiar scenario in academic publishing: an e-mail arrives indicating that a paper has been accepted for publication, and there's great joy. The publisher provides a time frame for submitting camera-ready copy along with a copyright assignment form. The author submits an update to the paper and the signed copyright form to the publisher. In a few weeks or months, a new paper is available to the community, making both the author and the publisher happy. The author's work is available to the community, and the publisher can recover costs by charging for access. Unfortunately, that's not the end of the scenario. The publisher now completely controls access to and distribution of the author's work. An author who e-mails a PDF to a colleague, puts a copy on a website, or provides copies to workshop participants without receiving explicit permission from the publisher has violated copyright law. The author has no say in how the published work can be disseminated.

THE OPEN ACCESS ALTERNATIVE

Open access offers an alternative to the traditional publishing model. Generally, this term refers to a model that makes scholarship freely available digitally without common copyright and licensing restrictions. The work can be indexed, distributed, and shared freely, and authors can put a copy on their website, send a copy to a colleague, or distribute copies at a workshop without violating copyright. The intent is to reduce all access and use barriers while shifting the cost recovery associated with publishing to other models, requiring publishers to find new economic models for sustaining their businesses.

Not surprisingly, open access is a hot topic among scholars, libraries, and publishers. The movement originated in 1990s following what librarians called "the serials crisis" and also had roots in the scholarly communication reform movement during that same time.

Between 2000 and 2003, three main initiatives—the Budapest Open Access Initiative (2001), the Berlin Declaration on Open Access to Knowledge in the Sciences and Humanities (2003), and the Bethesda Statement (2003)—were launched to advance the national and international conversation on the topic of open access.

The Budapest Open Access Initiative is considered to be a significant and defining event in the open access movement. It combines an old tradition in which scholars publish their work for the benefit of inquiry and knowledge with a new technology, the Internet, to make their scholarship freely and immediately available without restrictions to others who otherwise might not have access to the published information.

This initiative embodies open access in a now well-known definition:

By "open access" to this literature, we mean its free availability on the public Internet, permitting any 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. The only constraint on reproduction and distribution, and the only role for copyright in this domain, should be to give authors control over the integrity of their work and the right to be properly acknowledged and cited.

The Berlin Declaration on Open Access to Knowledge in the Sciences and Humanities is an international statement endorsing the spirit of the Budapest Open Access Initiative to disseminate knowledge for the public good, while the Bethesda Statement focuses on providing open access to the primary scientific literature.

Together, these three initiatives offer essentials that embody the public definition of open access.

THE UNIVERSITY OF KANSAS AND OPEN ACCESS

The University of Kansas has a long history of interest in and advocacy of public and open access to the products of scholarship. Several sustained initiatives over a period of nearly 15 years contributed to the impetus for KU to become an early adopter of open access. Ultimately, budget-driven reductions in journal subscriptions prompted direct action.

In the 1990s, KU provost Dave Shulenburg became an influential voice to help shape new models of scholarly communication. Noting that the 227 percent increase in the average cost of journals far outstripped inflation, Shulenburg urged faculty and librarians to stop wringing their hands and do something. The explosion in costs and decreases in available resources were limiting access to scholarly communication. Increased funding was not going to be a solution to this recurring problem. Shulenburg helped the KU faculty understand the problem's parameters and suggested some efforts they could take individually and through their scholarly organizations to keep it from growing worse.

In 2003, Shulenburg's suggestions resulted in the development of KU ScholarWorks, an institutional repository that faculty could use to test-drive a system where they could deposit their scholarly publications, working papers, datasets, and other original material.

KU's faculty senate unanimously adopted a resolution supporting open access, urging "faculty, staff, and students to take greater responsibility for expanding access to scholarly information and ensuring its long-term accessibility while maintaining scholarly standards of quality" (<https://documents.ku.edu/policies/provost/ScholarlyInformation.htm>). In April 2009, the faculty senate unanimously adopted an open access policy, making KU the first public institution in the US with a faculty-led and campus-wide open access policy.

The essential components of many open access policies include the following:

- the faculty grants the university permission (a legal nonexclusive license) to make a copy of each published journal article available online, free to all readers;
- the faculty member will supply a copy of such articles to the university; the university will share a copy in its digital open access repository; and
- the faculty member can waive the license, on a per-paper basis, if the author cannot secure enough rights to share the work or if the author has other reasons not to share the work.

The full KU open access policy is available online at <https://documents.ku.edu/policies/governance/OpenAccess.htm>.

THE IMPACT OF OPEN ACCESS

Impact and citation are universally important factors to all authors—we all want our work to be visible and read by our peers. Thus, open access has garnered significant debate, raising questions including whether articles in open access journals get cited and whether open access articles have greater research impact. Several studies analyzing the impact factor of open access journals and open access articles indicate mixed results.

Alma Swan's comprehensive 2010 report, "The Open Access Citation Advantage: Studies and Results to Date" (http://eprints.soton.ac.uk/268516/2/Citation_advantage_paper.pdf), examined 31 studies conducted to determine

whether the citation rates are higher among papers that are available openly compared to those that aren't. Among these studies, 27 found a positive advantage, and four found no advantage or a disadvantage

Another study published in the IEEE Data Engineering Bulletin in 2005 (<http://eprints.soton.ac.uk/262906>) found that citation rate increases among open access articles ranged from 36 to 172 percent. Swan found that citation rate increases also varied by discipline, with electrical engineering, for example, having a 51 percent increase in citations when a work was available through open access.

A preliminary study conducted in 2009 revealed that journal impact factors increase when journals move to open access (www.mdpi.com/1420-3049/14/6/2254). The authors examined a small set of journals, but their approach points to a method for future examination of the influence that an open access model can have on a journal's impact factor over time. A 2004 study commissioned by Thomson ISI (<http://ip-science.thomsonreuters.com/m/pdfs/openaccesscitations2.pdf>) indicated that some journals utilize an open access model that "does not necessarily equate to more citations in these journals—nor does it equate to fewer." James Pringle, vice president of development, academic, and government markets at Thomson, (www.nature.com/nature/focus/accessdebate/19.html) stated:

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We think this is because increasing the potential journal readership does not change the fundamental value and relevance of an article in a journal to the work of a particular researcher. If any chosen access model allows the journal to be read by all or most of its intended audience, that audience will judge its relevance. Journals and other forms of scientific publishing will have impact based on criteria other than simply open access

Ideas of value are changing too, with researchers developing new methods for examining impact beyond the number of citations. For example, Altmetrics (<http://altmetrics.org/manifesto>) is an example of an innovative experiment for rethinking value and impact to better reflect the fullness of what's possible.

Open access also impacts both the general public's good will and the ability to satisfy the public good that is inherent in creating new scholarship. Although measuring these factors is more difficult, the growing public support for open access

At the University of Kansas, we believe that open access is a concept whose time has come. KU is joined in this belief by members of the Coalition of Open Access Policy Institutions, which was formed so that representatives from North American colleges and universities can work together to advocate for open access nationally and internationally. See <http://www.arl.org/sparc/about/COAPI> for a complete list of the member institutions and additional information about COAPI. We have adopted policies supporting open access across the University of Kansas and have provided KU ScholarWorks to facilitate access to scholarly works. As the discussion moves forward, we believe that more institutions will adopt and support open access policies and that emerging technologies will only hasten this process.

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