Opening Up
A Global Context for Local Open Access Initiatives in Higher Education
Chelsee Dickson

Open access policies and mandates can be a useful tool in persuading faculty at higher education institutions around the globe to produce and share open scholarship. But are such policies widely written, accepted, and adopted? Leveraging information found on the Registry of Open Access Repositories Mandatory Archiving Policies, this paper analyzes open access policies at higher education institutions worldwide. The data indicate that Europe holds the most policies, while fewer policies have been enacted in the Americas, Africa, Oceania, and Asia due to a myriad of barriers. Overall, better strategies to promote open access are needed, and such strategies may not necessarily take the form of an open access policy. My own investigation of global open access policies has informed my practices with respect to open access. In this paper, I demonstrate how librarians acting as policy entrepreneurs can assist with the promotion of open access at their institutions and then conclude with suggestions, solutions, and pathways beyond policy adoption to promote and advocate for open access.

The world is connected through invisible lines and data points, networks, and satellites. Individuals rely on the internet for quick references to knowledge, and society has access to information and scholarly sources at the touch of a screen, now an extension of their fingertips. Contributors to the scholarly record are employed by research institutions, government agencies, and in the private sector. Much of their work can be found in databases and websites made available thanks to a relatively new philosophy that focuses on openness and sharing.

Students sometimes take for granted their ability to conduct research for their courses using openly available digital databases and online journals. The availability of these digital resources is founded on the principle that materials should be freely, easily, and immediately available for use in teaching, research, and scholarship by anyone globally. Around the world, the principles that underline the free sharing of knowledge are known collectively as "open science," which focuses on the dissemination of research and research outputs like study methods, study protocols and data analysis plans, code used to analyze the data, completed datasets and related metadata, and study findings. These outputs are then shared freely and openly by their creator.[1] Open science is a construct that aims to "make scientific knowledge openly available, accessible and reusable for everyone" for the betterment of society, opening up scientific processes, knowledge creation, and evaluation to those outside of the scientific community and increasing collaboration.[2] The construct of open science includes movements such as open access and open data, and it works in tandem with the open education movement to support the usage of open educational practices like open pedagogy and open educational resources. The following investigation will focus on the open access movement.

Chelsee Dickson (cdickso5@kennesaw.edu) is the Scholarly Communications Librarian and Research and Scholarship Team Lead at Kennesaw State University.

According to the Scholarly Publishing and Academic Resources Coalition (SPARC), open access is defined as "the free, immediate, online availability of research articles coupled with the rights to use these articles fully in the digital environment."[3] Academic authors may choose to take the open access route when formally publishing or informally depositing their research. Of the available open access publishing routes, the most popular are gold open access, in which an author's published work is made immediately and freely available after an article processing charge (APC) is paid; green open access, in which an author self-archives their work by depositing a version into a digital repository; hybrid open access, in which authors are given a choice to publish either open access or closed access; bronze open access, in which authors' published articles are free to read via the publisher's website but lack an identifiable, explicit license; and gray open access, in which work is available through an academic social network or other non-publisher website.[4]

While some academics choose to publish openly of their own accord, others need a push in the form of open policies and mandates. Institutional open access policies require works written by university faculty or developed under agency or foundation sponsorship to be made openly accessible."[5] Higher education institutions around the world are adopting open access policies for the benefit of both students and faculty, which ultimately results in the wide dissemination of original research and scholarly work that can be built upon from almost every corner of the globe. While European higher education institutions have pounced on the opportunity to share their work openly, universities and colleges in the United States and other parts of the Americas, Oceania, Asia, and Africa have not yet completely welcomed the trend with open arms.

Literature Review: Open Access Policies and Initiatives

Europe led the charge toward a more open and equitable research and publishing landscape, beginning with the 2002 Budapest Open Access Initiative (though signatories also included scholars outside of Europe), which was followed by the Berlin Declaration on Open Access to Knowledge in the Sciences and the Humanities, a declaration signed by over 150 educational institutions.[6] Since its inception, the Budapest Open Access Initiative has paved the way for institutional open access policies around the world. The initiative celebrated its twentieth anniversary in 2022 and, based on comments from the open access community, released new recommendations for the future.[7] New recommendations include a plea for institutions to host open access research on an open infrastructure; create positive incentives for open access and adjust assessment practices for university hiring, promotion, and tenure practices; leverage open access repositories; and focus on open access models that are truly accessible to all parts and regions of the world.[8] In 2023, the Berlin Declaration reached a milestone too: for twenty years, volunteers and participants have worked to advance the open access movement by hosting international conferences and working with institutions across the globe.[9]

More recently, cOAlition S, a consortium consisting of European national research funding organizations, the European Research Council, and the European Commission, worked to implement Plan S and ensure "all scholarly publications on the results from research funded by public or private

grants provided by national, regional and international research councils and funding bodies must be published in Open Access Journals . . . without embargo."[10] The organizations that compose cOAlition S put their principles into practice in 2021 by ensuring that any peer-reviewed, scholarly article resulting from research funded by grants provided by cOAlition S members must either be published in an open access journal or deposited in an open access repository. In addition, cOAlition S funders will finance an author's open access journal publication fees, although hybrid open access journals are excluded from this provision. National guidelines can be an effective path to open access on a large scale; these guidelines can and should influence institutional policies at higher education institutions that specifically target those in academia whose work fills academic journals. However, institutional policies may prove to have more of an effect on moving the needle toward open access worldwide. Johnson and Dubinsky studied scholarly communications librarians employed at Carnegie R1 institutions, and participants reported that institutional, library-specific open access policies created familiarity with open access policies in general and reminded librarians of their commitment to open scholarship, enabling better advocacy with faculty regarding open access publication.[11] Coupled with the requirements of research funders, institutional open access policies have the power to encourage faculty members and other academic researchers to publish open access.[12]

Methods

The following section includes a policy and document analysis of global open access policies and initiatives. Examples were obtained via the Registry of Open Access Repositories Mandatory Archiving Policies (ROARMAP), a directory that provides a list, organized by country, of organizations and higher education institutions that have written and enacted an open access policy.[13] Each page on ROARMAP contains metadata for the institution or organization and its policy. Policies were included in this review if they met the following criteria: deposit of the item is required or recommended; locus of deposit is in an institutional repository; and making the deposited item open access is requested, recommended, or required. Polices that met these criteria underwent additional screening, including whether the policy was linked on ROARMAP and able to be accessed (meaning no "404 Not Found" errors, security risks, or login requirements). Remaining policies were selected only if an English version was available and analyzed to determine whether the policy was in fact an open access policy and not merely institutional repository guidelines.

Global Open Access Policies and Initiatives

Universities throughout Europe have incorporated policies to support open access to research. In Eastern Europe, the Czech Republic's VŠB – Technical University of Ostrava and Poland's Medical University of Lodz and Institute of Nuclear Physics Polish Academy of Science all boast accessible open access policies, along with several institutions in Moldova.[14] Institutional open access policies can also be found throughout Northern Europe, including Denmark's Copenhagen Business School; Finland's Abo Akademi University, the University of Eastern Finland, and Aalto University; Ireland's Griffith

College and Dublin Institute of Technology; and Latvia's Riga Technical University. The United Kingdom holds the largest number of institutional open access policies.[15] The University of Oxford in particular delineates open access policies for university authors in their University of Oxford Open Access Publications Policy, stressing an importance on sharing scholarly work created by the Oxford community with the widest possible audience.[16] If their work is funded by federal dollars—and this is usually the case with public universities—authors are generally required to at least deposit a version in a repository, enabling open access.

The University of Barcelona also outlines an open access policy, approved in 2011 and with the Berlin Declaration in mind. The policy includes multiple resolutions in favor of open access publishing and open repositories, and it further states that "the academic community should choose to publish open access journals and make a commitment to facilitating this type of publication."[17] Other universities in Spain and Southern Europe have followed suit, among them Greece's International Hellenic University, Italy's Politecnico di Milano, the University of Malta, and the Instituto Politécnico de Bragança in Portugal.[18] Higher education institutions in Switzerland are well-represented.[19] Notably, the University of Zurich approved an open science policy in 2021 in the hopes to "establish Open Science as the norm."[20] The policy provides recommendations regarding how teaching faculty may integrate free access to teaching materials and publications into their academic practices. Similarly, universities in Austria,[21] Belgium,[22] France,[23] and Germany[24] have adopted policies that underscore the importance of open science.

Throughout Asia, only eleven institutions met the requirements of an open access policy as outlined above.[25] Open access remains limited, with only a smattering of institutions having enacted full and accessible policies throughout Eastern, Southeastern, Southern, and Western Asia. Although Hong Kong University did not meet the criteria, they are signatories of the Berlin Declaration on Open Access and advocate for their researchers to deposit in a repository and publish in open access journals.[26] Oceania has six total policies; of note is New Zealand's Auckland University of Technology Open Scholarship Policy, approved in 2020 and that strives to make all research outputs "open by default."[27] Acceptance and compliance with open access in Australia is assisted by the National Health and Medical Research Council and the Australian Research Council's open access policies, although further development of open scholarship is arrested by the barrier of outdated publication metrics (forcing faculty to publish in for-profit "top journals").[28] Of the thirty-six listed open access policies throughout Africa, only one policy met the above criteria: Kenya's Machakos University. While open repository usage is on the rise, aided by the 2016 Dakar Declaration on Open Access in Africa and the Global South, more work can be done to initiate trust and utilization of open access in Africa.[29]

In Central and South America, open access policies are few and far between. In fact, no institutional open access policy listed for countries within Central and South America met the above criteria; this may be due to the English language requirement in this study. In Canada, four out of the thirty-one policies met the above criteria, including Simon Fraser University, University of Toronto, York University, and University of Lethbridge (whose policy stresses "encouragement" of open access

publication rather than a hard mandate).[30] A new strategy is needed for these countries to both produce and disseminate open scholarship.

In the United States, adoption of open access policies is not as widespread as it is in Europe, nor are policies necessarily mandated by the federal government. High-research-output, private R1 institutions like Harvard University, Stanford University, and the Massachusetts Institute of Technology have incorporated such policies, although there is evidence that public research institutions are beginning to change their views on open access. The University of Kansas is one such case: this R1 public research institution crafted and enacted an open access policy in 2009—the first of its kind at such an institution.[31]

A major development occurred in 2013 when the University of California adopted an open access policy, stipulating that faculty authors at all ten campuses of the university system make their research outputs freely available. As their policy states:

> In particular, as part of a public university system, the Faculty is dedicated to making its scholarship available to the people of California and the world. Furthermore, the Faculty recognizes the benefits that accrue to themselves as individual scholars and to the scholarly enterprise from such wide dissemination, including greater recognition, more thorough review, consideration and critique, and a general increase in scientific, scholarly and critical knowledge.[32]

The University of California's commitment to openly accessible research was further expanded with the addition of a Presidential Open Access Policy in 2015, which included nonfaculty employees such as lecturers, administrative staff, and librarians, among others.[33] In the same year, Smith College, one of the largest women's colleges in America, approved and adopted an open access policy that relies on Creative Commons licenses and requests faculty authors to deposit a copy of their research articles into Smith's digital repository.[34]

Many institutions will likely follow, but the pace is slow. Europe is further along in the way of open access policies and mandates, yet breakthroughs in the United States may tip the scale toward a more open future for American institutions and organizations. Recent updates to the White House's Office of Science and Technology Policy (OSTP), which includes guidelines for all grant-funded research publications and results to be made publicly accessible by the year 2025, is one such breakthrough.[35] Specifically, research outputs associated with a federally funded study must be made freely available to the public with no embargo, eliminating paywalls typically used to deter nonsubscribers. While not an open access policy per se, some open access advocates are calling the guidelines a "de facto open-access mandate," and, from my perspective, this call for immediate public access is cause for celebration.[36]

Analysis of Institutional Open Access Policy Adoption

The benefits of open access are many.[37] When a scholar authors a paper and publishes it through an open access route, the work is more easily found online and able to be accessed, unlike a paywalled

paper. Once online, readership and citations for the author increase, potentially bolstering their promotion and tenure portfolio and curriculum vitae (in certain disciplines).[38] Additionally, open access removes barriers for readers who cannot afford access to information through subscriptions with often exorbitant price tags.[39] From an accessibility standpoint, free, digitally available materials can be read by screen readers and converted to braille for students with disabilities.

A number of higher education institutions in the United States are funded by federal dollars, and in turn these federally funded institutions encourage their faculty to conduct original and applied research with the use of taxpayer dollars, often with the intent to advance society for the greater good.[40] Additionally, grants and research funding provided through organizations like the National Endowment for the Humanities and the National Institutes of Health are usually financed by the government. Yet current subscription journal publishing models lock work behind a paywall, meaning users must pay or request a subscription for access, which begs the question: if research is created for the public and financed by the government with tax dollars from the public, should it not be freely available to the public? Therein lies the significance of the open access movement.

Such benefits would seem to be convincing enough, yet why is there such a discrepancy in policy adoption between the United States and Europe? ROARMAP provides a global, up-to-date, and comprehensive listing of universities and other organizations that have enacted open access polices. By the tally provided on the ROARMAP website, the United States has currently enacted 148 open access policies overall and the Americas have a total of 242; Europe, on the other hand, has 710 active open access policies; Asia has eighty-six in total, followed by Oceania with forty-two; Africa has the lowest count of policies at thirty-six in total.[41] The root of these differences may lie in institutional policy adoption and an organization's willingness (or unwillingness) to change. National support of open access policies and mandates are the driving force of open access buy-in in Europe, thereby ensuring researchers and authors comply with open scholarship practices.

In a 2011 article published in the *Policy Studies Journal*, Nowlin outlines multiple theories of policy and processes, one of which can be applied to the adoption of open access policies. The article describes the theory of multiple streams, in which there are three streams related to the creation of a policy: *a problem stream*, which encompasses issues on which citizens would like policymakers to act; *a politics stream*, which includes how the public imposes control over policymaking institutions; and *a policy stream*, which incorporates experts' ideas and solutions that will be implemented.[42]

To encourage policy adoption at an institution, a change agent or "policy entrepreneur" is needed, such as a librarian advocating for open access or the dean of a college with sway over high-level administrative officials. As Nowlin states, "Policy change occurs when a 'window' of opportunity opens and a policy entrepreneur merges the three streams."[43] In Europe, the role of policy entrepreneur can be seen in organizations like the Budapest Open Access Initiative. What is needed in the Americas, Africa, Asia, and Oceania is a similarly powerful and persuasive policy entrepreneur to consider the unique economic, political, and social factors and shift the mindset from closed to open.

The ability of an institution to change and adopt different viewpoints begins from within and is very much reliant on the culture. For instance, faculty at institutions in the United States are beholden to promotion and tenure guidelines that outline scholarship and publishing requirements in top journals, and these top journals typically are not gold open access.[44] Because open access is still a relatively new concept in academia, the majority of faculty are inclined to stick with the status quo of prestige and traditional publishing, meaning their articles are not accessible to those without a subscription. As researchers Kezar and Eckel have found, "Where strategies for change violate cultural norms, change most likely will not occur."[45] To fully embrace open access and comply with the adoption of open access policies, the culture at US institutions surrounding promotion, tenure, and scholarship must change.

Practical Recommendations for Open Access Advocacy

In a perfect world, authors, researchers, writers, and academics would default to sharing their knowledge openly. An optimized research sequence is one in which open access is prioritized from the beginning of the research cycle, from the kernel of an idea for a project, as depicted in a graphic created by the Creative Commons, a nonprofit organization that strives to overcome legal obstacles prohibiting information sharing (see figure 1).[46]
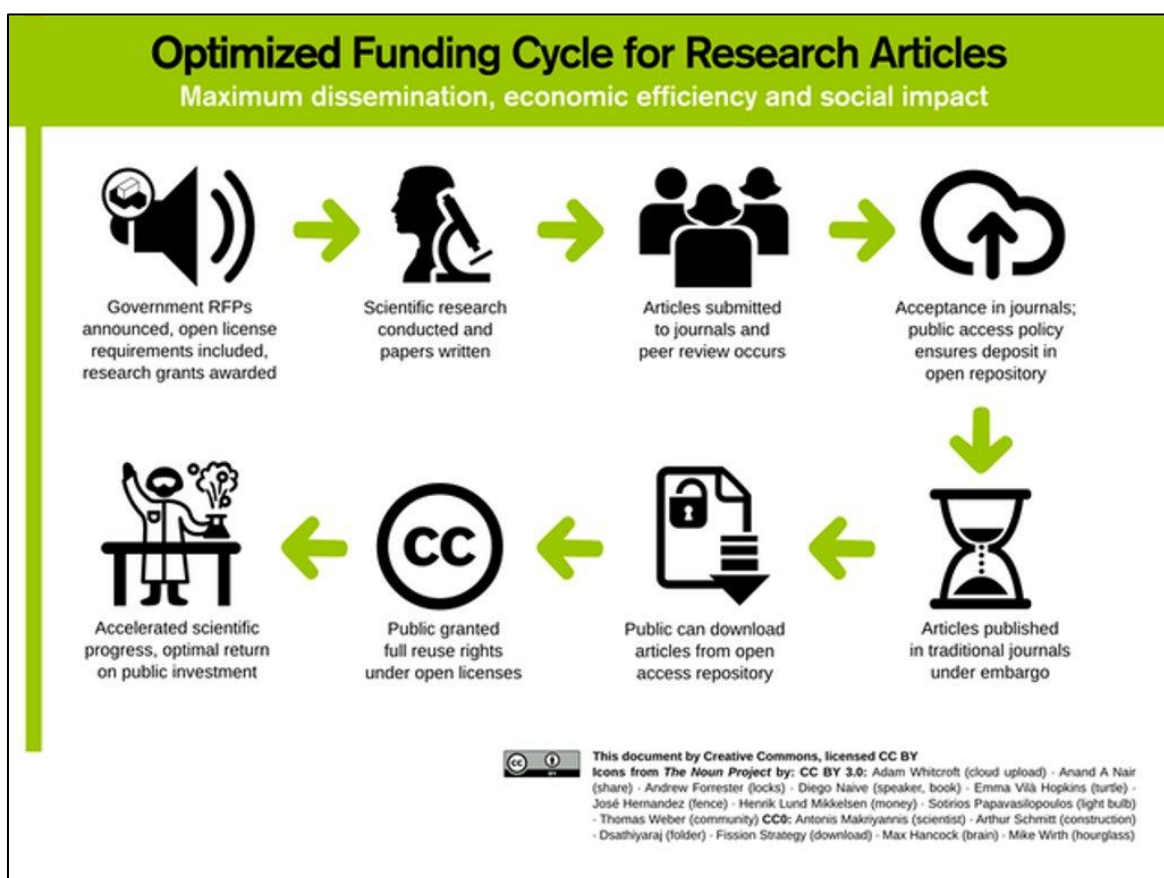

Figure 1. Illustration of the Optimized Funding Cycle for Research Articles

In figure 1, the government announces a request for proposals (RFP) that includes requirements for an open license, and researchers are awarded a grant to embark on their chosen research project. Once researchers have completed the project, they author a paper and submit it to an open access journal; the paper subsequently undergoes peer review. Next, the paper is accepted by the selected journal, and the authors agree to a public access policy that requires all publicly funded research to be deposited into a repository. Since the work is archived within a repository, it can be accessed immediately, and with a Creative Commons license, the public has the right to reuse the work. Ultimately, this accelerates research and allows for extensive information sharing. Although specific to government-funded grants, the Creative Commons graphic (figure 1) is nonetheless relevant to academics and faculty at universities, as they frequently apply for government-funded grants.

Open Access Policy Entrepreneurs at Kennesaw State University Libraries

Though open access policies are not widespread in the United States, small initiatives at some universities are assisting in the push to open doors and minds to open access. For instance, although Kennesaw State University (KSU)—located in Georgia and recognized as an R2 research institution by the Carnegie Classification system—does not currently have an institution-wide open access policy, the university libraries offer a faculty Open Access Publishing Fund that offsets the publication and APC costs of open access publishing.[47] Faculty members of the university may apply to the fund if they plan to publish in a reputable open access journal.[48]

The fund, which I manage as the libraries' scholarly communications librarian, promotes open access and assists with disseminating the scholarly and creative output of KSU faculty into the greater research community. There are conditions for application approval, and the guidelines underwent a rewrite in the summer of 2022; they now stipulate that faculty must deposit a version of their article funded by the Open Access Publishing Fund into the Digital Commons@Kennesaw State University, KSU's institutional repository.[49] I first examined open access funding policies at public R1 institutions like Clemson University and adopted their stance on transactional requirements for open access funding. The new guidelines mirror those found in federal and grant agency policies by requiring research funded by the Open Access Publishing Fund to be both accepted by a publishing venue that will make the work immediately open access and by requesting that a copy of the work be deposited in the institutional repository for public access without an embargo. In this small way, KSU is inching toward an open goal much like their peer institutions.

The new guidelines have been generally accepted by faculty seeking funding for their open access publications. Each year, the fund is replenished by KSU's Office of Research, and my task is to coordinate the replenishment. In 2023, KSU's Office of Research and the KSU Libraries welcomed new members: the Office of Research selected a new director, and the libraries were appointed a new associate vice provost. Both will play important roles in the future of the fund. To create a partnership between the academic colleges and the university libraries, it was suggested that the funding guidelines be changed to only cover 50 percent of the APC, while the remainder of the cost would be the

responsibility of the faculty member's college. Due to recent cuts in the academic colleges' budgets, the provost did not recommend this suggestion, although it may be implemented in the future. If enacted, the hope is that the deans of said academic colleges will recognize that faculty are producing open access scholarship; by providing funding to support their faculty's open access publications, these disciplines are committing to the open access movement.

The Open Access Publishing Fund has led to other significant changes within the KSU Libraries. I recently collaborated with the director of collection development and the director of research and instructional services to author open access policies and guidelines. The first of these policies is internal to the library system and includes a definition of open access and the KSU Libraries' statement on open access, which describes the role of the libraries as open access supporters, encouragers, and educators. Furthermore, the internal guidelines include a section that details KSU's current open access partnerships (membership in the MDPI—Multidisciplinary Digital Publishing Institute—Institutional Open Access Program), agreements (an open access publishing agreement with *Frontiers* and a read and publish agreement with the American Chemical Society), and funding (through the Open Access Publishing Fund). Lastly, a section that details collection development open access guidelines concludes the document. The external policy is intended for all members of the university, as well as the public, and will mirror the content of the internal policy—the only difference will be the addition of a statement on the policy's ratification and approval. Both documents are still in the development stage as of August 2023. Next steps include presenting the open access policy to KSU's Faculty Senate and seeking approval from the provost and president. Once complete, the open access statement will be publicly available on the KSU library website.

A Path to Open Access Policy Adoption and Alternatives

Awareness is the key to effective policy adoption. Open access policy entrepreneurs around the world would do well to research other, similar policies from institutions, both domestic and abroad, that capture the spirit of openness and equity they wish to emulate. In crafting KSU's open access statement and guidelines, I consulted many open access policies, specifically those written by the University of Oxford, Emory University, and the Georgia Institute of Technology. An amalgamation of these policies resulted in the current draft, which is mindful of the institutional culture of KSU and the publishing habits and goals of its faculty. A policy entrepreneur need only begin with one supporter—and both together can begin the path to open access advocacy at their institution. Discovering pathways to administrators is key too—for example, the Office of Research, the Center for Excellence in Teaching and Learning, or similar units on campus can serve as powerful allies. Policy entrepreneurs should respect the chain of command at their institution and use this to their advantage: pitch the idea of an open access policy or statement to a supervisor and request that the idea be escalated to the top of the chain. Off-campus allies can assist too—in Georgia, much of the advocacy for open education is performed by Affordable Learning Georgia, and transformative agreements are negotiated on behalf of the University System of Georgia by GALILEO.[50]

Policy entrepreneurs should be flexible and willing to alter and edit the policy based on their faculty as well as the institutional financial and political climate. Garnering the support of faculty is fundamental, and faculty support will vary based on the individual institution. Incentives, such as the potential for increased research impact and promotion through global readership, assist in creating significance for faculty looking to bolster their promotion dossier with achievements. Hosting a free symposium or conference that showcases the benefits of open access and provides faculty with the opportunity to discuss said benefits with fellow faculty is another way to generate interest: the KSU Libraries host annual events for International Open Access Week to highlight the work of open access advocates at KSU and the larger scholarly publishing landscape.[51] The Libraries also host All Things Open Week, an original idea created by the scholarly communications librarian and the institutional repository staff of KSU, to celebrate the entire gamut of open scholarship, from open data, open-source software, and open science to open educational practices and openly licensed materials.[52] Such events assist in reinforcing the significance of the open access movement, as the number of attendees has steadily increased since the current scholarly communications librarian was hired in 2020, and attendees hail from KSU and beyond.

Open access policies are not the only path to success, however. Official policies can be difficult to enact, and policy entrepreneurs should not be dismayed at slow or no progress. Fruin and Sutton found that barriers to open access policy adoption included a perceived burden placed on faculty to publish open access, concern over the transfer of copyright, and a fear that publishers will not accept the work if the author must comply with an open access policy, among other worries.[53] Nevertheless, the United Nations Educational, Scientific and Cultural Organization (UNESCO) outlines strategies to promote open access—beyond policy work, there are opportunities through advocacy (like Open Access Week) and infrastructure (through establishing open access repositories and working with open access organizations).[54] Librarians acting as policy entrepreneurs and advocates may organize their open access strategies into similar categories such as education, outreach, advocacy, and partnerships.

Educating faculty about open access publishing routes is paramount, and librarians may consider designing train-the-trainer workshops and exercises that provide a full and holistic view of open access—not simply focusing on the positives and advocates but explaining the negatives and detractors. Librarians in the United States may also explain to faculty the significance of the OSTP Memo in that the recent mandate will affect faculty in all disciplines, should those faculty choose to seek federal funding, and they should consider highlighting the support the library can provide. During information literacy sessions, librarians can teach with open access resources and emphasize the information privilege students retain while enrolled and conversely how devastating this loss of privilege can be postgraduation. Lastly, librarians can create, maintain, and consistently update library research guides that provide information about open access, sources for discovering open access resources, and ways to evaluate open access venues, both for institutional authors and readers.[55]

Librarians may also utilize outreach strategies to raise awareness of open access on campus. If the institution has a liaison program or subject librarians, policy entrepreneurs can request that these

liaison and subject librarians discuss open access resources and publishing support during student and new faculty orientations, faculty beginning-of-term meetings, and meetings with deans and other administrators, if possible. Word-of-mouth campaigns can be a powerful tool in creating significance and interest to stakeholders. Intertwined with outreach is advocacy, which can take the form of policies adjacent to open access; for example, a copyright policy that incorporates the usage of open or Creative Commons licenses may act as a gateway to open access publishing. Starting small with an internal statement or set of guidelines, rather than a full-blown policy, is perfectly acceptable and may serve as a first step in the direction of open.

Similar small steps include encouraging deposits in any open repository, particularly if the institution does not have an institutional repository. Librarians may also leverage the institution's library collection as a segue into open access adoption by incorporating open access directories and resources into library database lists. Partnerships are another move toward open access, and librarians may consider forging relationships with publishers and negotiating discounts or waivers on APCs or signing transformative and read and publish deals to ensure faculty may both guarantee that their own publications are published through open access and access the publisher's content. Enacting just one of these strategies is a measure of success at any institution and assists in building a strong foundation of support for open scholarship.

Next Steps

Although resistance to change and difficulty in policy creation and adoption serve as hurdles to the widespread open dissemination of research, they are by no means insurmountable obstacles. SPARC and the Coalition of Open Access Policy Institutions (COAPI) outline best practices for institutional open access policy adoption to ease in the transition, advocate for, and promote an increase in such policies throughout North America.[56] Organizations like SPARC and COAPI continue to advance open access at universities throughout the United States.

Higher education institutions and postsecondary schools in the United States and around the world should consider uniting in the creation of an organization such as Science Europe, the policy association of public research funding and organizations in Europe.[57] All members of this organization, including universities, adopted the "Principles on the Transition to Open Access to Research Publications" in 2013, emphasizing a shift to open access.[58] If more North American universities, as well as Central and South American, Oceanian, Asian, and African, follow suit in adopting these polices, open access may become more trusted, respected, and prevalent.

Open access policies and mandates have numerous benefits to students, faculty, and academic researchers. They ensure that information is not blocked behind a paywall, thereby limiting information privilege. Students may use freely accessible articles in papers and projects; faculty may use open access resources in classrooms, which increases textbook affordability; and researchers may build upon academic publishing achievements. The scholarly publishing and research landscape is constantly

changing, yet higher education institutions may use open access policies and procedures as an anchor, solidifying their commitment to academic freedom and big possibilities in the wider dissemination of knowledge.

References and Notes

1. Tamarinde Haven et al., "Promoting Trust in Research and Researchers: How Open Sciences and Research Integrity are Intertwined," *BMC Research Notes* 15, no. 302 (2022): 1–5, https://doi.org/10.1186/s13104 -022-06169-y.

2. UNESCO, "Draft Text of the UNESCO Recommendation on Open Science" (program and meeting document, Intergovernmental Meeting of Experts (Category II) Related to a Draft UNESCO Recommendation on Open Science, online, March 31, 2021, https://unesdoc.unesco.org/ark:/48223/pf0000376893?posInSet=1& queryId=395b4969-9f12-4ff7-804f-7d0cfa9d8562.

3. "Open Access," SPARC, accessed July 3, 2023, https://sparcopen.org/open-access/.

4. Hajar Sotudeh, Zahra Ghasempour, and Maryam Yaghtin, "The Citation Advantage of Author-Pays Model: The Case of Springer and Elsevier OA Journals," *Scientometrics* 104, no. 2 (2015): 582, https://doi.org /10.1007/s11192-015-1607-5; Heather Piwowar et al., "The State of OA: A Large-Scale Analysis of the Prevalence and Impact of Open Access Articles," *PeerJ* 6, (2018): e4375, https://doi.org/10.7717/peerj.4375; Li Zhang and Erin Watson, "The Prevalence of Green and Grey Open Access: Where Do Physical Science Researchers Archive Their Publications?" *Scientometrics* 117, no 3 (2018): 2021, https://doi.org/10.1007 /s11192-018-2924-2.

5. Lexi Rubow, Rachael Shen, and Brianna Schofield, *Understanding Open Access: When, Why, & How to Make Your Work Openly Accessible* (Authors Alliance, 2015),https://authorsalliance.org/wp-content/uploads /Documents/Guides/Authors%20Alliance%20-%20Understanding%20Open%20Access.pdf.

6. Elisavet Chantavaridou, "Contributions of Open Access to Higher Education in Europe and Vice Versa," *OCLC Systems & Services: International Digital Library Perspectives* 25, no. 3 (2009): 169, https://doi.org /10.1108/10650750910982557.

7. Budapest Open Access Initiative, "The Budapest Open Access Initiative: 20th Anniversary Recommendations," last modified March 15, 2022, https://www.budapestopenaccessinitiative.org/boai20/.

8. BOAI, "20th Anniversary Recommendations."

9. Open Access: Initiative of the Max Planck Society (website homepage), accessed July 3, 2023, https://open access.mpg.de/2365/en.

10. "What is cOAlition S?" Science Connect, accessed August 15, 2023, https://www.coalition-s.org/about/.

11. Paula C. Johnson and Ellen Dubinsky, "The Challenging State of University Campus and Library Open Access Policies," *Journal of Librarianship and Scholarly Communication* 10, no. 1 (2022): 1–26, https://doi.org /10.31274/jlsc.13049.

12. Ellen Dubinksy and Paula C. Johnson, "Campus OA Policies: Responding to the Evolving Landscape," *Commonplace*, July 6, 2023, https://doi.org/10.21428/6ffd8432.fe26482d.

13. "Welcome to ROARMAP" (website home page), https://roarmap.eprints.org/.

14. Alecu Russo Bălți State University, Academy of Economic Studies of Moldova, Institutul Naţional de Cercetări Economice, Moldova State University, Nicolae Testemitanu State University of Medicine and Pharmacy of the Republic of Moldova, and the Technical University of Moldova.

15. These policies can be found at the following institutions: Aberystwyth University, AECC University College, Brunel University London, Bournemouth University, King's College London, Imperial College London, Goldsmiths University of London, London South Bank University, Liverpool John Moores University, Northumbria University, Middlesex University, The University of Manchester, St. George's University of London, Royal Holloway University of London, Queen's University Belfast, University of Birmingham, University College London, University of East London, University of Exeter, University of Gloucestershire, University of Hertfordshire, University of Leeds, University Warwick, University of West London, and the University of the West of England.

16. "Open Access Oxford," University of Oxford, last modified October 20, 2022, https://openaccess.ox.ac.uk/open-access-at-oxford/.

17. "The University of Barcelona's Open Access Policy," University of Barcelona, last modified June 7, 2011, http://diposit.ub.edu/dspace/bitstream/2445/27711/1/2011_06_UB_OA_Policy.pdf.

18. Universities include Universitat de Girona, Universitat Oberta de Catalunya (Open University of Catalonia, UOC), and the Universitat Autònoma de Barcelona.

19. Including the Zurich University of the Arts, ETH Zurich, and the Bern University of Applied Sciences.

20. "Open Science," University of Zurich, last modified November 15, 2021, https://www.uzh.ch/cmsssl /en/researchinnovation/ethics/openscience.html.

21. University of Vienna, University of Innsbruck, and the International Institute for Applied System Analysis.

22. Hasselt University, Katholieke Universiteit Leuven, University of Antwerp, University of Liege.

23. Institut Pasteur.

24. Friedrich-Alexander-Universität Erlangen-Nürnberg (FAU), Humboldt-Universität zu Berlin, Technische Universität Dresden/Dresden University of Technology, Wuppertal Institut für Klima, Umwelt, Energie, University of Heidelberg, Universität Konstanz.

25. The institutions include Korea Institute of Science and Technology Information (Republic of Korea), Hiroshima University (Japan), Kobe University (Japan), Kyoto University (Japan), Kyushu National Institute of Polar Research (Japan), Osaka University (Japan), Totoro University (Japan), University of Tsukuba (Japan), Nanyang Technological University (Singapore), Council of Scientific and Industrial Research (India), and King Abdulla University of Science and Technology (Saudi Arabia).

26. Gayle Rosemary Chan and Allan Shi-Chung Cheung, "The Transition Toward Open Access: The University of Hong Kong Experience," *Library Management* 38, no. 8/9 (2017), 488–96, https://doi.org/10.1108/LM-02 -2017-0013.

27. The institutions include The University of Queensland (Australia), The University of Melbourne (Australia), The University of Sydney (Australia), University of Technology, Sydney (Australia), University of Waikato

(New Zealand); "Open Access Policy," Auckland University of Technology, accessed August 16, 2023, https://tuwhera.aut.ac.nz/open-access-policy.

28. Paul Longlet Arthur et al., "Open Scholarship in Australia: A Review of Needs, Barriers, and Opportunities," *Digital Scholarship in the Humanities* 36, no. 4 (2021), 795–812, https://doi.org/10.1093/llc/fqaa063.

29. Wanyenda Chilimo et al., "Adoption of Open Access Publishing by Academic Researchers in Kenya," *Journal of Scholarly Publishing* 49, no. 1 (2017), 103–22, https://doi.org/10.3138/jsp.49.1.103.

30. "University of Lethbridge Open Access Policy," University of Lethbridge, last modified July 31, 2023, https://library.ulethbridge.ca/open/oapolicy.

31. Ada Emmett et al., "Toward Open Access: It Takes a 'Village,'" *Journal of Library Administration* 51, no. 5–6 (2011), 558, https://doi.org/10.1080/01930826.2011.589345.

32. "UC Systemwide Academic Senate Open Access Policy," University of California Office of Scholarly Communication, last modified July 24, 2013, https://osc.universityofcalifornia.edu/scholarly -publishing/uc-open-access-policies-background/systemwide-senate/.

33. University of California Office of Scholarly Communication, "UC Systemwide Academic Senate Open Access Policy."

34. "Open Access Policy," Smith College Libraries, accessed July 3, 2023, https://libraries.smith.edu/about /policies/open-access-policy.

35. The White House, "OSTP Issues Guidance to Make Federally Funded Research Freely Available Without Delay," press release, August 25, 2022, https://www.whitehouse.gov/ostp/news-updates/2022/08/25 /ostp-issues-guidance-to-make-federally-funded-research-freely-available-without-delay/.

36. Jeffrey Brainard and Jocelyn Kaiser, "White House Requires Immediate Public Access to All U.S.-Funded Research Papers by 2025," *Science*, August 26, 2022, https://www.science.org/content/article/white-house -requires-immediate-public-access-all-u-s--funded-research-papers-2025.

37. Rubow, Shen, and Schofield, "Benefits of Open Access," 22.

38. Amar S. Vadhera, Jonathan S. Lee, and Nikhil N. Verma, "Open Access Articles Garner Increased Social Media Attention and Citation Rates Compared with Subscription Access Research Articles: An Altmetrics-Based Analysis," *The American Journal of Sports Medicine* 50, no 13 (2022): 3690–97, https://doi.org/10 .1177/03635465221124885; Stephanie H. Wical and Gregory J. Kocken, "Open Access Promotion and Tenure Evaluation Plans at the University of Wisconsin-Eau Claire," *Serials Review* 43, no 2 (2017): 111–19, https://doi.org/10.1080/00987913.2017.1313024.

39. Lindsay Cronk, "Resourcefully: Let's End the Serials Crisis," *The Serials Librarian* 79, no. 1–2 (2020): 78–81, https://doi.org/10.1080/0361526X.2020.1832016.

40. Flavio Azevedo et al., "Towards a Culture of Open Scholarship: The Role of Pedagogical Communities," *BMC Research Notes* 15, no. 75 (2022): 2, https://doi.org/10.1186/s13104-022-05944-1.

41. "Browse by Country," Registry of Open Access Repository Mandates and Policies, accessed November 29, 2022, https://roarmap.eprints.org/view/country/un=5Fgeoscheme.html.

42. Matthew C. Nowlin, "Theories of the Policy Process: State of the Research and Emerging Trends," *Policy Studies Journal* 39 (March 2011): 41–60, at 44–45, https://doi.org/10.1111/j.1541-0072.2010.00389_4.x.

43. Nowlin, "Theories of the Policy Process," 45.

44. Meredith T. Niles et al., "Why We Publish Where We Do: Faculty Publishing Values and Their Relationship to Review, Promotion and Tenure Expectations," *PLoS ONE* 15, no. 3 (March 2020): 2, https://doi.org/10.1371/journal.pone.0228914; Barbara Crawford, "What Matters More in Open Access Publishing: Scientific Rigor or Financial Vigor?" *Human Technology* 17, no. 1 (2021): 6, https://doi.org/10.17011/ht/urn.202106223976.

45. Adrianna Kezar and Peter D. Eckel, "The Effect of Institutional Culture on Change Strategies in Higher Education: Universal Principles of Culturally Responsive Concepts?" *The Journal of Higher Education* 73, no. 4 (2002): 456, https://doi.org/10.1353/jhe.2002.0038.

46. "Open Access," Creative Commons, accessed July 3, 2023, https://creativecommons.org/about/program-areas/open-access/.

47. Chelsee Dickson and Rachel Schrauben Yeates, "Playing Matchmaker: Connecting Subvention-Funded Authors with Our Institutional Repository," *Against the Grain* 35, no. 1 (2023): 46.

48. Think. Check. Submit. provides a checklist to determine whether a journal is reputable. The tool can be found at https://thinkchecksubmit.org/journals/.

49. Faculty Open Access Publishing Fund," Kennesaw State University, accessed July 3, 2023, https://www.kennesaw.edu/library/faculty-subvention-fund.php.

50. More information about Affordable Learning Georgia can be found at https://www.affordablelearninggeorgia.org/; As an initiative of the University System of Georgia, GALILEO is Georgia's virtual library and provides access to authoritative and subscription-only resources for participating institutions. GALILEO assists with executing contracts for the university system's community. More information about GALILEO can be found at https://about.galileo.usg.edu/.

51. Visit the International Open Access Week website for ideas and themes: https://www.openaccessweek.org/.

52. "All Things Open 2023," Kennesaw State University, accessed August 15, 2023, https://digitalcommons.kennesaw.edu/ato/2023allthingsopen/.

53. Christine Fruin and Shan Sutton, "Strategies for Success: Open Access Policies at North American Educational Institutions," *College & Research Libraries* 77, no 4 (2016): 469–99, https://doi.org/10.5860/crl.77.4.469.

54. Alma Swan, *Policy Guidelines for the Development and Promotion of Open Access* (United Nations Educational, Scientific and Cultural Organization, 2012), 1–76.

55. For example, the Open Access Research Guide at Kennesaw State University: https://libguides.kennesaw.edu/openaccess.

56. "Campus Open Access Policies," SPARC, accessed July 3, 2023, https://sparcopen.org/our-work/campus-open-access-policies/.

57. "About Us," Science Europe, accessed July 3, 2023, https://www.scienceeurope.org/.

58. Amanda Crowfoot, "Open Access Policies and Science Europe: State of Play," *Information Services & Use* 37, no. 3 (2017): 271, https://doi.org/10.3233/ISU-170839.