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Harrison W. Inefuku

Iowa State University, hinefuku@iastate.edu

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Globalization, Open Access, and the Democratization of Knowledge

In many ways, developments in information and communication technology (ICT) and open access have disrupted inequities in academic publishing and global information flows. However, efforts to fully globalize and democratize information demand intentional efforts to involve and center perspectives that traditional forms of communication have marginalized. Information professionals and the systems they create must proactively attend to developing equitable and inclusive information systems. Initiatives such as SHARE and FORCE11, discussed below, indicate promise for fulfilling the vision and promise of democratized knowledge.

Each advancement in ICT, from codex to microfilm, has increased our ability to transmit knowledge across space and time. The evolution of ICT and the internet in particular has vastly increased the distance and speed at which information can travel. As Casey Coleman, former CIO of the U.S. General Services Administration, asserts: “Technology has a ‘democratizing’ effect, eliminating barriers and granting access so that new ideas can spread.”¹ Through the internet, the public has the ability to participate in the global accumulation of knowledge, by creating websites and blogs and by contributing to crowd-sourced sites like Wikipedia and the Internet Movie Database (IMDb).

The open-access movement, as articulated in the 2002 Budapest Open Access Initiative declaration, is characterized by lofty ideals that seek to enact this democratizing effect in the scholarly realm. The declaration states: “Removing access barriers to this literature will accelerate research, enrich education, share the learning of the rich with the poor and the poor with the rich, make this literature as useful as it can be, and lay the foundation for uniting humanity in a common intellectual conversation and quest for knowledge.”² In subverting the now typical commodification of knowledge and information, open access is posited as a way to bring equity to information consumption and to advance knowledge and development.

In traditional publishing, information inequities are created in a process that some have termed *the colonization of information*. The flow of information from the Global South³ to the North is characterized as a mining of information, knowledge, data, and heritage to support research conducted in the North. The resulting scholarship then circulates among scholars in the North, with researchers located in the Global South encountering significant barriers to gaining access to and contributing to this circulation of knowledge. As Johannes Britz and Peter Lor note: “From an African perspective a problem arises when

this flow [of information] is one-way, i.e. when the researchers subsequently fail to provide the host country with copies of dissertations and research publications arising from their work in that country.”⁴ With the exponential rise of subscription costs for journals published in the North, researchers with neither access to well-resourced libraries nor the means to purchase individual subscriptions have been denied access to the scholarly record.

In recent decades, the internet has created new channels to facilitate the global spread of knowledge. The development of institutional repositories through which scholars self-archive an open copy of their publications and the growth of open-access journals more broadly together are freeing information that would otherwise have been trapped behind subscription paywalls. For researchers in the Global South, access to cutting-edge research no longer has to be cost-prohibitive. For scholars in the North, this presents new opportunities to repatriate knowledge, providing communities with scholarship arising from research conducted in those communities.⁵ The benefits of this repatriation can range from shaping policymaking to improving local practices.

These developments also provide scholars who have been marginalized in traditional academic publishing, including scholars from the Global South, an opportunity to contribute to the scholarly record. Through open-access initiatives, researchers have opportunities to increase access to their work even if they are not able to publish in top-tier journals with high circulation rates. The addition of Southern perspectives can help to reframe methodologies and frameworks used in the North, especially in researching global issues. In the context of climate change research, for example, Malgorzata Blicharska and her coauthors posit that knowledge featuring contributions from both the North and the South “will be seen as more impartial (not biased by a Northern-dominated perspective) and relevant (sensitive to local contexts in both Northern and southern countries).”⁶

By promoting interoperability and implementing common standards, we are beginning to see national and regional efforts to aggregate openly accessible content from institutional repositories and funding agency repositories, making the body of self-archived literature easier to discover. SHARE embodies this effort in the United States. As regional networks mature, interoperability and harvesting will allow research from one region to be discoverable in another. OpenAIRE, the European repository network, is harvesting records from LA Referencia,



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the Latin American network, after LA Referencia adopted OpenAIRE guidelines for standardized metadata elements and vocabularies. These network linkages reduce geographic barriers to accessing international scholarship. On a smaller scale, libraries should include international open-access networks as targets in their discovery systems.

While we have witnessed an increase in the amount of scholarship openly accessible to the public, developments in ICT and scholarly communication are not a panacea for all barriers to knowledge access and production. True democratization and globalization of knowledge cannot exist without a critical examination of the systems that contribute to the production of scholarship.

The concept of the digital divide describes the lack of technological infrastructure available in the Global South, placing the South at a disadvantage in a global economy that has commodified information. Open-source software is touted as a low-cost method of bringing ICT to the Global South. When developing open-source software to manage and publish scholarship, partners from the Global South must be engaged from the onset so that their needs and perspectives can be included in the earliest stages of development. We cannot assume that tools developed to meet the needs of North American and European scholars will be of equal utility for those in the Global South.

Language is another barrier that may be mitigated through technology. With English as the *lingua franca* of research, the scholarly record is largely inaccessible to the non-Anglophone world. To increase the international utility of networks, repository and publishing platforms should have embedded translation tools. If it is not feasible to translate the full-text of the scholarship, we should aim to build systems that can, at the least, translate the metadata describing the knowledge contained in the systems, allowing researchers to determine whether pursuing their own translation is worth the expense and effort.

Academic publishing also presents systemic barriers and biases that ICT cannot solve. In discussing archival digitization projects in South Africa, Michele Pickover writes: "Many of these projects are fundamentally located in uneven power relations and perspectives which compromise national heritage; do not represent the views and interests of the developing nations; bolster inequities in globalisation; and exacerbate historic North/South imbalances. Increasingly . . . the real challenges are not technological or technical but social and political."⁷ The Andrew W. Mellon Foundation funded two phases of Digital Innovation South Africa (DISA), a digital archive providing online access to records documenting liberation struggles in South Africa. During the second phase of funding, the Mellon Foundation developed its own digital archive, Aluka, providing access to the documentation of liberation struggles across Africa. But Pickover notes that rather than recognizing and prioritizing the needs of the project's South African partners, Aluka influenced content selection for DISA. Likewise, in academic publishing, a Northern perspective dominates the selec-

tion of content for inclusion in the scholarly record, driven by editorial boards composed of researchers in Europe and North America.

Economically disenfranchised populations continue to be denied access to knowledge in a scholarly communication ecosystem reliant on resource-intensive ICT. Open access means little to communities without a stable telecommunications infrastructure. Open-access scholarship is simply not possible in places that lack reliable electricity and networks. Projects such as WiderNet's eGranary Digital Library aim to bridge this divide by making digital resources available offline on hard drives. As an offline resource, however, eGranary presents a snapshot of the world frozen in time, containing primarily English-language content selected in the United States. Bonny Norton and Carrie-Jane Williams note that the use of eGranary with students in Uganda relied on solar power, in a village that lacked electricity and running water.⁸

As we develop the next iterations of ICT for scholarly communication, voices from the Global South must be present from the onset. The FORCE11 Scholarly Commons Working Group has been established to create a set of principles that can guide the development of a scholarly communication working ecosystem. After the group's last workshop, a Self Critique subgroup was formed in response to criticisms that the working group was dominated by Northern perspectives. This self-reflective effort should be adopted by all scholarly communication initiatives. As we advance the principles of open access, we must critically examine our work to ensure that our efforts are moving us to a true democratization of knowledge, working toward equity in accessing and contributing to the global scholarly record. ■

Notes

1. Casey Coleman, "The Democratization of Knowledge," *Around the Corner: Innovation in the Business of Government: A GSA Blog*, September 17, 2012.
2. "Read the Budapest Open Access Initiative," February 14, 2002, Budapest Open Access Initiative website.
3. In this article, I use the phrase *Global South* in lieu of value-laden descriptors such as *Third World* or *developing countries*.
4. Johannes J. Britz and Peter J. Lor, "A Moral Reflection on the Information Flow from South to North: An African Perspective," *Libri* 53 (2003), 168.
5. In using the phrase "to repatriate knowledge," I am excluding the digital repatriation of culturally sensitive indigenous knowledge and artifacts, the politics of which are outside the scope of this article.
6. Malgorzata Blicharska et al., "Steps to Overcome the North-South Divide in Research Relevant to Climate Change Policy and Practice," *Nature Climate Change* 7 (2017), 21.
7. Michele Pickover, "Patrimony, Power and Politics: Selecting, Constructing and Preserving Digital Heritage Content in South Africa and Africa," paper presented at IFLA WLIC 2014, Lyon, France, August 16–22, 2014.
8. Bonny Norton and Carrie-Jane Williams, "Digital Identities, Student Investments and eGranary as a Placed Resource," *Language and Education* 26, no. 4 (2012).

Harrison W. Inefuku (hinefuku@iastate.edu; Twitter: @hnltraveler) is Co-Lead of the Digital Scholarship and Initiatives Department and Scholarly Publishing Services Librarian at Iowa State University.

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