

Open Access Initiatives and Networking in the Global South

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This short study highlights the impact of open access in the Global South. Featuring collaborative open access initiatives in Algeria, Kenya, Myanmar, Nigeria, Nepal, Palestine, Tanzania, Uganda and Latin American countries, it showcases success and describes the challenges that we still face. It also questions a notion of a journal article – perhaps already becoming obsolete – and discusses the growing preprints initiatives to speed up the availability of research results. The value of regional journal and repository networks enhancing open access content in Europe and Latin America is also discussed as well as the impact human networks make in the Global South.

Health research dissemination

Dr. Bessie Mukami is a general physician at Embu General Provincial Hospital, a relatively large teaching hospital in Embu, a town located approximately 120 kilometres northeast of Nairobi towards Mount Kenya. Embu serves as the provincial headquarters of Eastern Province in Kenya and is also the county headquarters of Embu County. “You have, maybe, one doctor to ten thousand people”, says Dr. Mukami. And as she speaks, her fingers click through pages of open access medical journals on a laptop. Subscribing to medical journals is very expensive, and it can be difficult for doctors to consult each other because of the long distances between hospitals. Open access is solving one of the biggest problems Dr. Mukami has: “Instead of calling other doctors for information, the information is open and available, and you search for what you really want”, she says.

Dr. Gerald Nderitu, the medical superintendent at the same hospital and an experienced surgeon of 16 years, also relies on open access research output to help his patients. “When I have a patient and I am not familiar with their condition, I will go back to the internet and update my knowledge using PubMed Central,” Nderitu says about the free full-text archive of biomedical and life sciences journal literature containing more than 4.2 million articles. Kenya Library and Information Services Consortium (KLISC) trained Mukami, Nderitu and other health workers in Embu General Provincial Hospital on open access. And this was just one out of almost a hundred open access awareness raising and advocacy events we organized in Kenya, Tanzania and Uganda with KLISC, Consortium of Tanzania University Libraries, Consortium of Uganda University Libraries, medical students, researchers, journal editors and publishers to improve health research dissemination and maximize its visibility and impact.

Information consumers vs producers

More of information consumers than producers? This is what we often hear about researchers from the Global South. Prof. Jackson Too of the Kenya Commission for University Education questions this statement: “For a long time, developing countries are said to be more of information consumers than producers. This has been aggravated by the fact that, majority of the high impact journals rarely publish research from local authors. There is a lot of research done locally, however very little is done to disseminate the output. Needless to say, the skyrocketing costs of journals are greatly inhibiting the availability of research results. The problem may not be obvious for the few institutions that can afford subscriptions to digital editions of journals, but to the many potential users who do not have access. This

has led to duplication of research since there are no avenues of knowing what has been done by other scholars.”

“Just like MPESA – a mobile phone-based money transfer, financing and microfinancing service – has revolutionized the financial sector in the country, embracing open access will create a ripple effect in the way scholars provide access to their craft and this will improve visibility of our university staff. Therefore, failure to embrace open access means missing a grand opportunity to improve dissemination, visibility, and impact of research findings,” – says Alice Kande, a colleague of Prof. Too. The Commission has called upon universities in Kenya to endorse and commit to open access through open access policy formulation and implementation.

Embu University, Jomo Kenyatta University of Agriculture and Technology, Kenyatta University, Kirinyaga University, Pwani University, Strathmore University and University of Nairobi have already adopted their open access mandates. Those that were the first ones, supported the others and we were happy to facilitate this collaboration. “The research we do is supposed to be for the public good. We are being funded by public institutions, donors, and I think it’s good to be able to share.” explains Prof. Lucy W. Irungu, the Deputy Vice-Chancellor, Research, Production and Extension at the University of Nairobi. There are over 81,770 research outputs in the University of Nairobi Digital Repository. And this repository reached six million downloads, with the most popular article in the past six months downloaded 17,300 times.

Covenant University in Nigeria was one of the first universities in Sub-Saharan Africa that adopted an open access mandate and open educational resources policy. These policies have improved University’s and researchers’ visibility; increased industry recognition and collaborations; improved pedagogy leading to better students and graduates performances and helped to create a lifelong programme to extend University’s reach to would-be students. Covenant University is now recognized as the best private university in the country, the second best university in Nigeria and a pioneering institution in emerging global ideas.

Challenges

It is exciting to see successes like this, but what about challenges? Open access is still facing many obstacles such as confusion, complexity, copyright issues, and lack of trust and lack of commitment. Prevailing journal level metrics in research assessment and evaluation and academic promotion, lack of will to change from research administrators and lack of governmental policies and political support in the Global South make researchers reluctant to fully embrace open access.

Article Processing Charges (APCs) – a fee that some open access journal publishers charge to recover their costs – are usually exorbitantly expensive to researchers from the Global South, especially if they have to pay in a foreign currency. And these new challenges are coupled with traditional ones such as poor internet access and connectivity, lack of digital skills and language barriers.

Building trust using new metrics for research assessment and evaluation; shortening embargo periods ensuring open availability of publications as early as practical; and reducing APCs are some of the strategies to overcome the challenges we currently face.

At EIFL – a not-for-profit organization that works with national library consortia in over 40 developing and transition countries to enable access to knowledge for education, learning, research and sustainable

community development – we respond to these challenges by supporting development and implementation of open access policies and mandates; enhancing open access journals and repositories; embedding open access, open data and open science into young researchers workflows and changing the way research is assessed and evaluated. There are over a thousand open access repositories in our network; over four thousand open access journals are published and over one hundred universities, research institutes and research funding agencies adopted open access policies and mandates.

Publishing initiatives

It does feel good when the immigration and border control officer at Kathmandu airport asks you about the Directory of Open Access Journals (DOAJ) – a community-curated online directory that indexes and provides access to high quality, open access, peer-reviewed journals – and Nepal Journals Online (NEPJOL) – a service to provide access to Nepalese published research with 11,477 journal articles available in full text.

And I would like to see more countries following the Algeria approach mandating open access to Algerian journals and providing a free digital editorial and hosting platform – the Algerian Scientific Journal Platform (ASJP) hosted by CERIST - to journal editors.

In the past 15 years we have seen a lot of successes of scholarly community-lead open access publishing initiatives in Latin America. For example, Latin American Council of Social Sciences (CLACSO) has been successfully publishing open access journals with no APCs, promoting open access institutional repositories, and contributing to institutional and national open access policies. CLACSO collaborates with SciELO (Scientific Electronic Library Online) – a successful cooperative decentralized platform for electronic publishing of open access scholarly journals, originated in Brazil, now with national focal points in 14 other countries such as Argentina, Bolivia, Chile, Colombia, Costa Rica, Cuba, Mexico, Paraguay, Peru, Portugal, South Africa, Spain, Uruguay and Venezuela – and Redalyc, a non-commercial indexing service with hundreds of peer-reviewed open access research journals, published by more than 500 institutions from 22 Ibero-American countries (Red de Revistas Científicas de América Latina y el Caribe, España y Portugal).

A similar non-profit initiative in Africa – African Journals OnLine (AJOL) is the world's largest and pre-eminent collection of peer-reviewed, African-published scholarly journals. 215 journals out of 521 hosted at AJOL are open access with 75,938 full text articles for download.

But perhaps a journal article is already becoming obsolete? New media forms emerge and publishing platforms evolve. Researchers use the Jupyter Notebook – an interactive computational environment, in which one can combine code execution, rich text, mathematics, plots and rich media – to write research papers and books. And the question is which academic publisher will be the first to accept a Jupyter Notebook as a journal article?

Repositories

Open access repositories embedded into researcher's workflows are very high on my wish list and we already see this happening with Overleaf – an online LaTeX and Rich Text collaborative writing and publishing tool that makes the whole process of writing, editing and publishing scientific documents much quicker and easier. Overleaf is linked with over 20 publishers and preprints repositories such as arXiv – providing open access to 1,237,145 e-prints in physics, mathematics, computer science, quantitative biology, quantitative finance and statistics; bioRxiv – the preprint open access server for

biology; engrXiv – the preprint open engineering archive; and SocArXiv dedicated to opening up social science. The newest baby in the preprints repositories family is Open Access India’s initiative – AgriXiv – open access preprints for agriculture and allied sciences launched in February 2017. And SciELO has also just announced its plan for the development and operation of a preprints server – SciELO Preprint to contribute to speeding up the availability of research results.

ASAPbio – a scientist-driven initiative to promote the productive use of preprints in the life sciences – defines a preprint as “a complete scientific manuscript that is uploaded by the authors to a public server. The preprint contains complete data and methodologies; it is often the same manuscript being submitted to a journal. After a brief quality-control inspection to ensure that the work is scientific in nature, the author’s manuscript is posted within a day or so on the Web without peer review and can be viewed without charge by anyone in the world. Based upon feedback and/or new data, new versions of your preprint can be submitted; however, prior preprint versions are also retained. Preprint servers allow scientists to directly control the dissemination of their work to the world-wide scientific community. In most cases, the same work posted as preprint also is submitted for peer review at a journal. Thus, preprints (rapid, but not validated through peer-review) and journal publication (slow, but providing validation using peer-review) work in parallel as a communication system for scientific research.”

Could repositories provide peer-review, open peer review more specifically? Technology is already there. Open Scholar with the support of OpenAIRE, coordinated a consortium of five partners – institutional repository of the Spanish National Research Council (DIGITAL.CSIC), repository of the Spanish Oceanographic Institute (e-IEO), The Artificial Intelligence Research Institute (IIIA) in Catalonia, The Multidisciplinary Laboratory of Library and Computer Sciences (SECABA) in Granada, and a company of DSpace professional development and services (ARVO) – to develop the first Open Peer Review Module for open access repositories (1, 2, 3). Are repositories in the Global South interested in integrating the Open Peer Review Module?

The Open Peer Review Module for repositories has already been requested by our partners in Myanmar – University of Mandalay and University of Yangon. “Open access has opened up exciting possibilities for people from all over the world who are keen to further their academic work. It empowers academics, but with power comes responsibility,” says Professor Dr Thida Win, Rector of the University of Mandalay. University of Mandalay has taken ownership and control of their research publications, adopted an open access policy and is launching an open access institutional repository. University of Yangon is also launching its open access repository to support and promote open science, a trend that maximizes investments in research by making research outputs freely available to the world, ensuring access and preservation. Open access has special significance in this country that suffered decades of isolation.

Palestine is another special case for us: a divided country where there are restrictions on movement between its two parts, the West Bank and Gaza. “In addition to opening our research to the world, Birzeit University’s open access institutional repository, titled ‘FADA’, which means ‘Space’ in English, will facilitate learning for our local academics, researchers and students, who face problems meeting each other resulting from restrictions on movement,” says Diana Sayej Naser, Director of Birzeit University Main Library and EIFL Country coordinator in Palestine.

Networking

Beyond national borders, open access repositories are connected through regional and thematic networks to promote open research content globally and substantially improve the discoverability and reusability of research publications and data. Two of the largest open access repositories regional networks – OpenAIRE in Europe and La Referencia in Latin America – bring together professionals from research libraries, open scholarship organizations, national e-Infrastructure and data experts, IT and legal researchers to demonstrate the value of common guidelines and interoperable technologies. OpenAIRE and La Referencia collaborate to develop services on top of repository content, such as aggregating content from many different sources; linking research publications, research data and software; tracking research outputs according to research projects and funding agencies; gathering all research output in one place and providing a broader research context; monitoring open access policies implementation and organization's open access output; providing aggregated usage statistics and research analytics, highlighting research trends.

Powerful networking technologies are already there. But what about people? It is not common yet to have open scholarship officers in the universities of the Global South. Usually this role is fulfilled by a librarian or a research manager already overloaded with other more pressing tasks and job responsibilities. But national, regional and international open access initiatives are also there to provide guidance and support. Because we all agree that open content creates more value than a closed one. And reusable content is even much more valuable. Our focus is not access per se, but the right to re-use research output as the right to stay current in research and development not only in the Global South.

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