

Opening Access to Southern African Research: Recommendations for University Managers

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Open access to research is no longer a fanciful notion promoted by a small group of advocates: it has become a mainstream concept embraced by governments, funders, institutions and researchers. It is an enabler of knowledge societies. UNESCO and the World Bank have endorsed the potential benefits of open access to the whole world.

Open access has been shown to increase the impact of research on other sectors, notably the small business, education and health sectors. It improves efficiencies in the research process wherever it is undertaken – in academia, in industry and commerce, in the cultural heritage sector and by independent researchers. Research moves more quickly and more efficiently if there are no barriers to locating and accessing information.

Open access also saves money and this, coupled with efficiency gains, means that the future system of scholarly communication will be cheaper and better, with payoffs for producers of research and for those who can – given free access – use it. There are benefits for numerous stakeholders:

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- Research-performing institutions benefit from greater visibility, usage and impact of their research, in terms of citations, social return and funding.
- The mission of research funders – to create and spread knowledge – is enhanced by open dissemination.
- The research process benefits from minimised delays, effort and cost of access to information, and from efficiencies that barrier-free access to research information brings.
- Society benefits from cost-free access to information that helps people fulfill their roles and deliver a knowledge-based society equipped to tackle problems of the future.

There are no downsides, but progress towards open access has been slow because of entrenched behaviour patterns and adherence to practices of the past. New thinking is required of leaders of research systems. Institutional policy-makers must also grasp opportunities to push for a better system for disseminating research.

The Scholarly Communication in Africa Programme (SCAP) explored the state of scholarly communication in Southern Africa and included an analysis of the costs and benefits of open access for higher education in the region and around the world.

It found that the main obstacles to open access in Africa are lack of awareness and understanding, copyright issues, lack of policies, lack of coordination between libraries, lack of infrastructure and lack of funding. All of these can be overcome, but this needs a determined, coordinated approach by African institutional leaders, research funders and libraries.

The study led to the following recommendations for operationalising open access in Africa.

Operationalising open access – recommendations

Recommendation 1

Build an open access repository infrastructure in Southern Africa

There are around 45 open access repositories in Southern Africa, but many institutions are without one of their own or without shared access to a repository. All researchers need to have depositing rights in at least one repository if open access is to be provided effectively. A properly functional repository infrastructure requires repositories themselves, implementation in line with international interoperability standards and a planned approach to the repository network shape and structure.

Recommendation 1.1

Examine potential patterns of repository infrastructure

Drawing on past studies, recommendations and best practice, scope the most appropriate structure for a repository network in Southern Africa. This means deciding on whether a single repository or a network of institutional or national repositories is



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best; if a single repository, whether it should be the locus of deposit or harvest content (metadata) from a federated network of institutional or national repositories – such as Europe’s OpenAIRE repository; and whether national repositories should accept deposits or harvest content (metadata) from institutional repositories.

Recommendation 1.2

Maximise interoperability of African repositories

Fully interoperable repositories are essential to provide seamless access to research outputs. To provide interoperability at the proper level – that is, to make sure all Southern African repositories operate according to the same technical standards as each other and international repository networks – means using standardised metadata schemas, systems of identifiers and so on.

Recommendation 2

Invest in open access publishing infrastructure

Southern Africa has around 80 open access journals, predominantly published from South Africa. In comparison, 270 open access journals are published from Brazil. Open access journals can be cheap to produce and publish and could form the basis of a “brand Southern Africa”. Journals can be published using repositories as the hosting service or other publishing arrangements can be instituted. An appraisal should be conducted of the costs and logistical requirements of establishing a suite of Southern African open access journals.

Recommendation 2.1

Build publishing services onto repositories

Investigate and prepare costings for options for using repositories as simple publishing tools or building existing journal publishing packages into repositories.

Recommendation 2.2

Scope the potential for new African open access journals

Carry out a feasibility study and prepare costings for launching new open access journals in Southern Africa. The study should include consideration of how to provide publishing services (hosting, editorial services, peer review management); researcher interest and willingness to take on the new challenges involved; readiness of research



Operationalising open access through megajournals

The small size of many higher education institutions in Southern Africa and the low potential for growth given the region's population and wealth constraints, have been serious obstacles to institutions asserting publishing identities, thus affecting visibility.

Africa is riddled with "Volume 1 Issue 1" journals, publications that through lack of critical mass – and fears of low prestige and impact – have failed to produce a second edition. A possible solution to this problem is megajournals.

Many point to PLOS One as the first megajournal. Basing its acceptance decisions on scientific rigour, proper methodology and conclusions supported by data – not on relevance, novelty or impact considerations – PLOS One became the largest single journal in 2010, four years after its inception in 2006. Along with considerable size, it is also a world-renowned and prestigious publisher, and desirable as a journal of first publication.

Megajournals are continuing to grow and it has been forecast that they will account for up to 50% of scientific literature by 2016. Megajournals share a number of characteristics:

- Sound science
- Impact not required
- Academic editors
- Automated, scalable workflows
- Fast turnaround time
- Author processing charges of around UDS1,600
- Post-publication promotion
- Article-level metrics

The use of post-publication review and the reduced focus on novelty and impact allow megajournals to theoretically publish considerable quantities of research before technical constraints become relevant. The use of automated workflows and academic editors instead of in-house editors helps process this large volume of research.

The end result is a great volume of research being published, utilising benefits of scale, which is vetted for scientific rigour and not relevance or impact concerns, freely available to both the academic community and the public.

funders to support these ventures in terms of cash and of support for the principle and practicalities involved; how these journals can be made viable, and sustained and supported in the long term.

Recommendation 2.3

Carry out a feasibility study on developing an African “megajournal”

Carry out a feasibility study and prepare costings for launching one new open access journal “megajournal” in Southern Africa. The study should include consideration of: how to provide publishing services (hosting, editorial services, peer review management); researcher interest and willingness; readiness of research funders to support the venture; how the journal could be made viable, and sustained and supported in the long term. (See box opposite.)

Recommendation 3

Develop policy on open access

However good the provision of technical infrastructure, open access content does not accumulate at high levels without the right policy support. There is much experience and information on policy implementation and since there are now many policies around the world, alignment of policies is becoming a critical issue. Alignment means that authors do not work under different or conflicting demands when they are funded from more than one source, or are under both funder and institutional open access mandates. Good open access policy development needs to be undertaken, ensuring that policies align across the region and with the significant policies in place around the world.

Recommendation 3.1

Develop institutional policies

Drawing on the wealth of experience and understanding gained from open access policy-making globally, research-performing institutions in Southern Africa should develop mandatory institutional open access policies. These should align with each other and with funder mandates.

Recommendation 3.2

Develop funder policies

Drawing on the wealth of experience and understanding gained from open access policy-making globally, research funders in Southern Africa should develop mandatory open access policies. These should align with each other and with funder mandates.

Recommendation 4

Institute a programme of education and advocacy for open access

Just as good infrastructure does not generate high levels of open access content without policies, so policies do not succeed fully without advocacy to support them. A coordinated information programme for the region is necessary to back up other open access initiatives. The aim is to ensure that all researchers, policy-makers and research managers are accurately and fully informed about open access, the routes to achieving it and its costs and benefits.



Recommendation 4.1

Establish an advocacy network for the region

An advocacy network could be in the form of distributed nodes – maybe a node in each country – with centres of expertise at each node, or it could be in the form of a central organisation that works across the region. An appropriate governance team should be set up and enabled to carry out the investigatory and practical work required.

Recommendation 4.2

Encourage and enable repository support organisation(s)

A repository support network could be in the form of distributed nodes – maybe a node in each country – with centres of expertise at each node, or it could be in the form of a central organisation that works across the region. An appropriate governance team should be set up to carry out the investigatory and practical work required.



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