African researchers are ready to share more work openly—now policy must make it possible

February 13 2023, by Lara Skelly and Elisha Chiware

Credit: Pixabay/CC0 Public Domain

Librarians are the curators of creativity. They collect success stories and share it with the world. Traditionally, the success was from published

authors, which libraries shared with the local community. More recently, the model has been flipped: libraries have started to collect from the local community to share with everyone.

In academic libraries, this is best seen in the work of repository librarians. They collect not only the published output of researchers but also all the digital ephemera that might be created through the research process: the data, the software, the code.

The movement that makes all the ingredients of a research project available on the internet, with as little restriction as possible, has been termed "Open Research" or "Open Science." This umbrella term includes open access, open data and open methods, to name a few.

The work involved in open science pulls in researchers, librarians, funders, policymakers and the public. Its benefits flow back to the librarians too. Some of the benefits include trust, greater access to research and more collaboration among researchers.

Adoption is steadily under way, evidenced by the number of open access policies, the growth of open science standards and policies or the number of times it has been searched in Google over the past few years, but Africa has been slower to take up the change. A change on such a large scale requires that certain things are in place: policies, willingness to implement them, and the infrastructure to make implementation possible.

We undertook a two-part study to understand the root of Africa's slow uptake of open science practices.

Positive attitudes

Firstly, using the data from the State of Open Data surveys, we looked at

how researchers who self-identify as African think about open data. We discovered that there was not much of a difference in attitude between African researchers and their counterparts in other countries.

The analysis centered on researchers' attitudes towards three areas:

- sharing their own data
- the shared data of others
- the open data ecosystem in place to enable wider data sharing.

We found that the attitudes of researchers in 28 countries in Africa had changed over time. They had become more positive about open science, but they were not very different from those of researchers elsewhere.

They all had the same attitudes towards sharing their own data, reusing the shared data of others and the general open data ecosystem. All were in an upward trend over time. Motivations and fears were much the same too. It's likely that the lack of difference is due, in part, to the fact that academics regularly interact with each other through conferences and other research opportunities.

The African researchers' attitudes towards open science indicate they are ready for policy that enables open science practices. But what about the policy makers?

Policy readiness

Our second study, a systematic review, found there was no shortage of examples of open science policies, nor was there a lack of implementation frameworks that could guide African open science stakeholders to develop their own policies, that would set out the open science intent and delineate the roles and responsibilities of stakeholders and researchers.

Some African countries are already doing well in open science. [Botswana](#) is one; stakeholders are working on a national policy to support open data activities. Botswana shows that all stakeholders must be included in policy development. Another is [South Africa](#). The country's National Research Foundation is working towards an African open science platform. This is a collaboration of several national and international entities.

However, the lack of policy synergies appears to be holding back the African open science environment. Other researchers have [put it like this](#): "African science systems largely operate independently of each other, creating silos of incompatible policies, practices and data sets that are not mutually consistent or inter-operable."

Another [study](#) confirmed this. Without policy clarity, there is no impetus to invest in the technology and infrastructure to support open science. Creating confusion is the tension between various stakeholders, some on [ethical grounds](#) and others on [commercial foundations](#).

Benefits of open research

Many stakeholders—[funders](#), [institutions](#), [governments](#), and [publishers](#)—are encouraging researchers to work as openly as possible, because of the benefits it brings. These include:

- trust
- accessibility
- collaboration
- replication of findings
- cost effectiveness.

The transparency of sharing the detail of the research builds trust in that research process, as others can review and verify the findings.

Removing paywalls equates to greater accessibility, particularly for those who are under-resourced.

With fewer restrictions comes the opportunity for improved collaboration among scientists, and between scientists and the public.

Sharing the fine details of the research process enhances replication, allowing others to build upon the existing science and make findings in less time.

Funders need not pay for the collection of the same data or the development of a method. Because much research is publicly funded, this translates to better use of tax money.

These benefits add up to a greater chance that the research will have a positive impact.

The way forward

Librarians like us are already smoothing the way to open science, despite the lack of infrastructure and policy support. We have simply been doing what those in our profession have always done: widening access to information.

Librarians have always worked in the midst of fractious stakeholders, from governments and publishers to funders and communities, finding creative solutions to new problems. Would you expect anything less from the curators of creativity?

This article is republished from [The Conversation](link) under a Creative Commons license. Read the [original article](link).