Improving research access and communication in Sierra Leone

Encouraging collaboration, harnessing enthusiasm, supporting local ownership

A new pilot project in Sierra Leone, in collaboration with Research4Life, is exploring ways of increasing awareness of the online research literature available in Sierra Leone and enabling researchers to make better use of it in their work

Sierra Leone is just 12 years on from a devastating conflict and still suffers from serious gaps in its infrastructure. The average adult has had just 3.3 years of schooling, and adult literacy rates are around 43%. Among its six million people, 60% live below the national poverty line. While there are many needs in Sierra Leone, previous experience[1] has shown that universities can play a key role in social and economic development. To do this, higher-education institutions need adequate facilities, sufficient collections of books and journals, and — with so much now online — reliable internet connections.

As part of INASP's ongoing work to support countries as they develop their research capacity to tackle development challenges, a pilot project, in collaboration with Research 4 Life,[2] has been looking at ways to support research communication in Sierra Leone.

Solar panels power cryongenic equipment in a research lab on a rural campus

INASP staff members visited Sierra Leone in September 2013 to gain a first-hand understanding of the situation and to consult with key people in the higher education and research system. This was led by INASP's Programme Manager for Information Access and Publisher Liaison, Anne Powell, and Senior Programme Manager for Research Access and Availability, Jon Harle.

They found the library at the country's oldest institution with a badly leaking roof, journal volumes that ran only to the 1990s, and a recently refurbished computer room unused because the bills had not

The project partners

Research4Life provides developing countries with free or low-cost access to academic and professional peer-reviewed content online. Over 35,000 online books, journals, and databases are available through its programmes, and its priority is to raise the awareness and use of these freely available resources by researchers in Sierra Leone. In the current project, Research4Life makes these online resources available and plays an advisory role. INASP leads project development, supports training and helps to liaise and foster links with stakeholders within Sierra Leone and in other countries.

been paid and the internet had been cut off.

However, they also found people with a high level of commitment and motivation to improve research and educational standards. In addition, it seemed that the time was right to become involved in the research processes in the country: the government and heads of institutions were identifying ways to improve research and teaching, including the provision of research literature and library improvement.

Information gained during the visit was compared with previous INASP experience in other countries, as well as feedback from contacts in the University of Sierra Leone (USL) in Freetown and Njala University (NU). It was clear that Sierra Leone did not have the high-speed broadband infrastructure that is now in place in many other countries where INASP works. However, at the national level, substantial improvements were on the horizon as a result of World Bank investment in the country's broadband infrastructure.

It was also clear that, at a local level, improvements in university information and communications technology (ICT) infrastructure would be key to improving access to research. INASP staff also recognized that raising awareness of the online literature that is already available (through Research4Life, open access and INASP's own programme[3]) could help to make the case for further campus network development. Finally, it emerged that Sierra Leone was particularly keen to emulate the success of Ghana, suggesting an opportunity to create an early link with INASP's network in Ghana.

From planning to action

Immediately following the scoping visit, Jon blogged about some of the team's reflections.[4] Miriam Conteh-Morgan, a Sierra Leonean librarian who had been working in Ohio for many years, got in touch. She was on the point of moving back to Freetown and eager to offer her many skills to her home country. She wrote:

"… your post infused me with optimism. I hope this will be the start of a series of conversations with you about how [Sierra Leone] can benefit from INASP support."

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Miriam made an immeasurable difference to the project as she was someone on the ground who shared INASP's thinking and aims. The Vice Chancellor at USL was already familiar with her skills and appointed her as the Project Lead to represent USL. In a similar process, NU appointed its dynamic ICT Director, Thomas Songu, as its lead. Building on INASP's initial discussions with institutional leaders, Miriam and Thomas have worked together and secured the interests of their colleagues. The links between the two institutions exist at the vice-chancellor level, but also at a very practical level through Miriam and Thomas. They are also very keen to involve other institutions — two other public universities and several polytechnics — as soon as possible.

INASP developed a project plan, in consultation with the two universities (USL and NU), represented by Miriam and Thomas.

Making connections: INASP's Anne Powell (bottom right) with Thomas Songu (middle, front row), Miriam Conteh-Morgan (middle, second row) and other local partners

A first step was to organize a symposium for research and academic leaders. This enabled them to discuss the opportunities and possible barriers to supporting access to online research literature, and thus research, teaching and learning capacity in Sierra Leone. The symposium featured short presentations by the two vice-chancellors, Miriam on behalf of the Institute of Public Administration and Management (IPAM) library within USL, and Helena Asamoah-Hassan, a representative of the Consortium of Academic and Research Libraries of Ghana (CARLIGH). Helena's presence was particularly important, as Ghana has been highly successful in improving its access to research resources. As a country, Ghana is seen by many in Sierra Leone as a model of infrastructure and development.

The priorities noted by the university leaders aligned with the recommendations of the Government Agenda for Prosperity around improvements to the ICT infrastructure, power supply and education levels. There was also clear commitment to support the improvement of essential infrastructure, as well as to recognize the role of librarians and support them in their work.

A framework for collaboration

Access to online resources is vital for researchers to do good research. In addition, lecturers can use these resources and demonstrate their value to students. This improves educational standards by expanding teaching resources and keeping lecturers abreast of current learning in their subject.

This is particularly vital as Sierra Leone, like many African countries,

Njala University in Sierra Leone

has a burgeoning population of prospective students. There is a need to improve educational standards to ensure graduates can contribute to their country's development as useful, employable members of society.

Immediately following the symposium, librarians and ICT personnel from the two universities participated in a workshop on the management of access to online resources. This was significant as librarians and ICT staff members

rarely talk together or collaborate, despite the complementarity of their skills and responsibilities. As a result of the meeting, the two groups agreed to form a library consortium to move the project forward. Uniquely – when compared to others in the region – the consortium would be comprised of both librarians and ICT staff.

By taking this early convening approach, INASP was able to help in the formation of key relationships among groups that

Bringing knowledge home

Miriam Conteh-Morgan from the Institute of Public Administration and Management is a Sierra Leone national. She lived in the US for many years and worked at Ohio State University, one of the country's largest universities. Ohio State is the largest member of OhioLink, a leading state-wide consortium in the US. Through this work, Miriam recognized the value of library consortia, which inspired her to develop a library consortium in Sierra Leone when she returned in 2013.

"The challenges are enormous, both for the country and its academic institutions," she said. "To date, there haven't been enough experienced librarians in the country to take on these challenges. I believe more can be done via strategic planning and partnerships and, in that regard, I had INASP on my radar as one organisation to approach."

Miriam is working with INASP and with other partners in Sierra Leone, including Thomas Songu, ICT Director at Njala University. Thomas is also a Sierra Leone national, and spent years working in his respective field in the UK. He brings vast knowledge from a highly developed system of online research access to this initiative in Sierra Leone.

have not traditionally come together to make decisions. University vice-chancellors, librarians, ICT professionals and researchers are each essential to improving research access, but none of them can do it on their own. This collaborative approach has helped to accelerate

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efforts to improve the access to and use of online resources. It has also brought increased awareness of the vital role that librarians play in access to research.

Supporting researchers and journal editors

There is important research being done in Sierra Leone, as in many countries in Africa. Yet it rarely becomes part of the global body of scientific knowledge because of a lack of skills for negotiating the complicated process of publication. INASP has learnt from prior work that improving access – the supply side – is only addressing one part of the problem. It is also vital to ensure that people have a reason to use research. It was obvious early on that many researchers in Sierra Leone were keen to publish their work, so efforts were needed both to encourage use and to meet researchers' expressed wishes.

These challenges were met through an adaptation of INASP's AuthorAID[5] initiative, which helps researchers

in developing countries to publish and communicate their work, in part by improving their writing skills. AuthorAID offers online courses to researchers. However, because internet access was not yet sufficient in Sierra Leone, INASP developed an offline/asynchronous version. Thus, while the ICT infrastructure was being developed, there was still an opportunity to strengthen researchers' abilities to publish.

In Sierra Leone, AuthorAID is available as a facilitated online course. A Planning and Communicating research component is being piloted in Sierra Leone as a downloadable self-study course. This has made it available to far more people in Sierra Leone, who can take the course based on their own needs and schedules. Even when travel or online access is restricted, people can learn the skills they need at their own pace. This could be especially relevant during crises such as the current Ebola outbreak where people are avoiding travel or large gatherings.

Freetown, Sierra Leone from above

One researcher from NU has recently participated in an AuthorAID mini-MOOC (massive open online course) on research writing skills, while another won an AuthorAID grant for a workshop entitled 'Collaborating for Winning International Grant Applications'. The rationale he gave in his application was "Although top rated in Sierra Leone, Njala University has not been benefiting from major international research funding opportunities targeting developing countries, due to poor grant application and organizational skills." The workshop, which was initially put on hold due to the Ebola situation but was held in February 2015, provided an opportunity to develop such skills and establish strategic multidisciplinary research groups in the university.

Based on lessons learnt in Sierra Leone, the online self-study course may be rolled out to other countries in the coming years. With no fee for using the service, universities can incorporate it into their core research-development programmes, providing a basic foundation for skills building. It can also give universities a way of encouraging researchers to keep doing research, because it improves the chances of them getting published. This is key as time spent on research must compete with other obligations, particularly consultancies and teaching.

The other piece of the puzzle relates to Sierra Leone's scientific journals. Few journals in the country have an online presence, and many are keen to get online, publish more regularly, and improve the quality of their publications. INASP has considerable experience in this area through its Journals Online programme[6]. In collaboration with African Journals OnLine (AJOL), it will provide a workshop for editors to assist them in putting their journals online, and

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to improve the production quality of their publications.

In addition, INASP has supported the procurement of an Open Educational Resources repository server for the University of Sierra Leone. This has been expedited to enable the university to serve remote users unable to attend classes during the Ebola crisis.

Enabling national expansion and regional links

Although competition among universities is common, USL and NU are keen to collaborate. In addition to this initial two-way partnership, they want to involve at least two other universities in the country as partners in their efforts to improve

access to online research literature. This shows the potential for the project to grow even after INASP's role ends. It also confirms INASP's belief in the strength of institutions and people working together at a national level.

Regionally, INASP has created opportunities to connect librarians and ICT managers in Sierra Leone with more experienced colleagues in Ghana to share lessons and experiences across borders. This has linked professionals from one of the poorest and most resource-constrained countries to peers in a country with a stronger higher-education and research system. For example, INASP arranged for Miriam, the Librarian of the Institute of Public Administration and Management, USL, and Thomas, the ICT Director from NU, to attend a library consortium conference in Ghana's capital Accra. Their attendance was partly funded by their own institutions, showing the willingness of these universities to commit their own resources to their staff and this initiative.

Sustaining success

In Sierra Leone, INASP has taken a new approach to supporting access, production and use of research – learning from many

AuthorAID workshop held in Sierra Leone in February 2015

years of experience in other countries – and the results are encouraging. INASP's on-going role is as a catalyst and convenor. It is building relationships and bringing key stakeholders together, and raising the visibility of online resources already available through Research4Life and other channels. It is also providing funding and training materials so that academic leaders, librarians, ICT managers and researchers in Sierra Leone can undertake follow-on training. INASP will continue to work with the project coordinating committee of librarians and ICT personnel from the USL and NU. Through this, it will help to identify other areas that could be strengthened, for example, through the introduction of a writing-skills course or further support for consortium building.

The Vice-Chancellor of the USL, Professor Thompson, feels the project has real potential to

Agricultural research is important in Sierra Leone

succeed and is keen to support the people involved. Despite massive infrastructure problems and libraries in a poor state, he has a vision for developing and revitalizing the university, and feels the project is an important step forward in this endeavour. He sees access to better research literature as particularly instrumental in helping the university to attract the best academic staff. ●

References

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INASP's practices for improving research access

- Combine research access and research production activities, by training librarians and IT staff in how to manage access to online literature, training researchers in search skills, and offering subsequent support in research writing.

- Seek relationships with university leaders from the start, to understand their priorities for research development, and to see how this project could serve them.

- Take a collective problem approach from the start, bringing librarians, ICT staff, researchers and leadership together to understand and agree on what they want to achieve.

- Work with role models, such as Ghana. INASP understood that Sierra Leone looks to Ghana as a development example, and quickly involved INASP's Ghanaian associate, who offered powerful examples of what could be achieved.

- Change makers, such as Miriam and Thomas, are vital in giving local, practical suggestions and keeping the project moving forward.

- Step back as soon as there are signs of local ownership, viewing INASP as a catalyst rather than driver of the initiative, and entrusting the project's sustainability to local knowledge and talent.

INASP Team

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