**Southern African Regional Universities Association**

# OPENING ACCESS TO KNOWLEDGE IN SOUTHERN AFRICAN UNIVERSITIES

## Research Study
## Final Technical Report

**29 October 2008**

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# 1. Synthesis

SARUA, in collaboration with the IDRC, initiated a research study to investigate the issues of 'access to knowledge' constraints in Southern African Universities and the role and potential contribution of Open Access Frameworks and initiatives for research and dissemination. Eight universities in seven countries were selected to participate in this multi-country, cross-sectional study. A qualitative approach to the analysis of semi-structured interview data was used to investigate the existing constraints of access to knowledge. The study found that the key constraint to accessing knowledge is a lack of awareness of what has been produced in the regions, which is exacerbated by the limited capacity to make research available online. Moreover, the publishing criteria used to determine promotion and reward further serve to steer the publishing patterns of researchers into disseminating research results in international accredited journals which are often not available or affordable to universities in the region.

The study found that 71% of respondents are aware of open access (OA) approaches to disseminating knowledge and that the majority of interviewees were in support of OA. Notwithstanding the support for the introduction of OA to promote access to knowledge, respondents did raise a number of concerns pertaining to the quality of open access material that is not peer-reviewed; e.g. copyright, plagiarism and recognition for research output. The study also found that experiments with OA are already underway in universities, but that these initiatives face considerable challenges to successful introduction into the mainstream of university life and practice. It was found that a favourable university policy environment, as well as effectively funded institutional and technical capacity, is needed in order to promote sustainable implementation of initiatives to enhance scholarly publishing and dissemination in the region.

The report proposes a new framework that is based on open knowledge approaches to knowledge production, publishing and dissemination in response to the identified constraints and challenges to a productive academic research and publishing sector. The adoption of a proposed *Vision for Open Knowledge* in southern African universities and the establishment of a research publishing and dissemination platform are an integral part of such a framework. These proposals will form the basis of a sustained campaign to promote the establishment of a regional research publishing and dissemination platform, subject to discussion and endorsement by SARUA and its members.

## 2. Research problem

Current levels of research and publishing in Southern African universities and production and introduction of new knowledge into teaching and broader society are considerably lower than what are required to meet the developmental needs of countries in the region. It is, therefore, important that universities understand the potential contribution open access can make, not only to scholarly publication, but rather, to changing the way research is conducted and disseminated.  Open Access recognises that greater access to publicly-funded scholarly research is necessary for accelerating knowledge transfer in the context of university missions. The study focused on issues of 'access to knowledge' constraints in Southern African universities and the role and potential contribution of Open Access Frameworks and initiatives for research.   It explored the views, perceptions and attitudes of respondents to create a picture of the key concerns they have in respect of constraints to accessing and disseminating knowledge.   The specific research questions for investigation were:

1.    What are the existing constraints to availability of academic and other relevant research publications in the social sciences and humanities, the health sciences and the natural sciences and engineering?
2.    Are Southern African universities changing their practices relating to production and dissemination of research and publications and, if so, how?
3.    How can Southern African universities increase the availability of academic and other relevant research publications to students and researchers?
4.    What measures would be required to encourage new approaches to knowledge production and dissemination in Southern African universities among librarians, research managers and prominent researchers/scientists?
5.    How can open access benefit and contribute to scientific collaboration and endeavour, and what are its implications for research across higher education institutions throughout the region, given the current limitations confronting Southern African Universities?

## 3. Research findings

It was found that the lack of awareness of what is produced in the region serves as a major constraint to accessing research undertaken in the region. Research produced in the region tends to be poorly organised, not indexed and not made available electronically.   The predominance of unpublished research and scientific output, often dismissively referred to as 'grey literature,' does not lend itself to electronic discovery processes and, as a consequence, is not accessible.  The lack of capacity to make research available online further exacerbates the situation.   The publishing criteria used to determine promotion and reward further serve to steer the publishing

patterns of researchers into disseminating research results in international accredited journals which are often not available to universities in the region. Researchers prefer to publish in international journals rather than journals produced in the region due to perceptions of poor quality. Trust and confidence in local journals are further adversely affected because many journals are perceived to be published irregularly or fail to remain in existence.

A significant proportion of respondents (71%) are aware of open access approaches to disseminating knowledge. The majority of interviewees were in support of open access, of which a large proportion (77%) indicated that they explicitly support the introduction of open access. Notwithstanding the support for the introduction of open access to promote access to knowledge, respondents did raise a number of concerns pertaining to the quality of open access material that is not peer-reviewed; copyright, plagiarism and recognition for research output. Respondents expressed concern about the quality of open access material, particularly when it is not peer-reviewed. Respondents are plagued by uncertainties pertaining to intellectual property rights in the electronic environment. It emerged that respondents are not clear about where ownership is vested in the context of institutional repositories in particular. A fear of plagiarism was identified as having a further negative influence on the attitude of respondents to open access. Moreover, uncertainty over whether open access published research will be afforded the same recognition in university promotion policies serves to hinder the uptake of open access. Given all these constraints it was difficult for some academics to conceive of how open access would be operationalised in their respective university environments.

Experiments with open access are already underway in some universities, but face considerable challenges. Issues that need to be addressed for the successful implementation of open access projects and an open knowledge paradigm include a favourable university policy environment, as well as effectively funded institutional and technical capacity.

The research report proposes a new framework that is based on open knowledge approaches to knowledge production, publishing and dissemination in response to the identified constraints and challenges to a productive academic research and publishing sector. The adoption of a proposed *Vision for Open Knowledge* in Southern African Universities and the establishment of a research publishing and dissemination platform are an integral part of such a framework.

The findings significantly further the existing understanding about the key constraints to accessing knowledge for research and teaching, and how they may be addressed. Policy makers, university managers and academia more broadly can draw on the findings to develop effective policy and operational responses to address these constraints.

## 4. Fulfilment of objectives

The more than 66 universities in Southern Africa fulfil their missions in diverse environments and settings, each with its particular opportunities, constraints and resources. The primary project objective of broadening the current understanding in regard to constraints to knowledge for research and teaching in universities is therefore vital for developing responses that can effectively address such constraints. In this respect, the project achieved considerable success. Not only do the results provide a sound basis for the development of possible interventions, the process of implementing also provided an opportunity for different stakeholders to interact within the frame of developing appropriate responses to address the constraints identified in the research.

An initial methodology workshop served as the main capacity building platform for introducing the seven young researchers from the region, recruited to undertake the fieldwork in the respective countries. At the workshop, the researchers were introduced to the key concepts underpinning the open access approach as well as the methodology used in the study[1]. These young researchers could serve as focal points for future research studies and development projects in their respective counties.

## 5. Project design and implementation[2]

The project consisted of three phases. The **first phase** was the project initiation and planning phase. This phase was important for establishing the parameters within which the project would be implemented, and clarifying the governance and management arrangements underpinning the project. The **second phase** focused on refining the methodology with specific reference to conceptual framework for the research design, analysis and development of the research instruments. This was followed by the completion of the fieldwork, data capture and analysis, the preparation of the research report and the communicating the research results as part of the advocacy activities. The **final phase** of the project was aimed at handing over the research data and results and concluding the project from an administrative perspective. The project should be viewed as part of a number of other projects initiated by the IDRC and other funding agencies[3] aimed at deepening and broadening understanding in respect of the adoption of open access at institutional, national, and regional levels.

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[1] See Appendix 1 and Appendix 2.
[2] See Appendix 1.
[3] Such as Publishing and Alternative Licensing in Africa (PALM Africa) funded by the IDRC, Opening Scholarship Project funded by the Shuttleworth Foundation, and the Publishing Matrix funded by the Shuttleworth Foundation and the Open Society Institute.

## 6. Project outputs and dissemination

The following outputs were produced during the research process:

| Output | Description |
|---|---|
| 1. Methodology Workshop Report | A record of the proceedings of the methodology workshop held with researchers. |
| 2. Conceptual Framework and Research Design | Describes describes the conceptual building blocks that provide the framework within which the study is located, and describes the key elements of the research design. The document also incorporates the sample of respondents and contains the research instruments. |
| 3. Opening Access to Knowledge in Southern Africa: Framework for the Southern African Regional Universities Association | The report proposes a new framework that is based on open knowledge approaches to knowledge production, publishing and dissemination in response to the identified constraints and challenges to a productive academic research and publishing sector. This is based on the findings of the research study presented in the second part of the document. |

SARUA recognises that the extent to which the recommendations made in the research study and framework will be implemented, is dependent on how effectively it is able to mobilise the energies and resources of its member universities and other stakeholders. In view of this, SARUA will consider initiating a sustained campaign to communicate the emerging paradigm and proposals for growing research intensity and knowledge production in the region. The campaign would have three (3) components:

1. Publication of Framework on 'Opening Access to Knowledge in Southern African Universities'.
2. Workshop with SARUA member institutions.
3. Scholarly publication – a 2009 'Open Access' thematic edition of the Southern African Journal of Information and Communications, a Department of Education (South Africa) accredited journal.

The workshop will be the first event of this campaign. The purpose of the workshop is to discuss the proposals on the establishment of a regional research and publishing dissemination platform in the context of the research paradigm of the 21st century. The workshop will provide an opportunity for participants to step outside their existing institutional paradigms and grapple with the possible future states of research and scholarly communication in the region. The workshop will further provide an opportunity for participants to assess and prioritise the different options and proposals for the establishment of the regional research publishing dissemination platform. These inputs may be incorporated into a more detailed implementation plan applicable over the next several years.

The proposal for a thematic edition of the Southern African Journal of Information and Communications (SAJIC) is based on the growing interest in how ICT and the Internet is creating a new environment for universities in the regional context. This 2009 edition of the SAJIC proposes to address the main theme of "open access, research dissemination and scholarly publishing in the Internet age".

## 7. Capacity-building

The Southern African Regional Universities Association (SARUA) has embarked on a series of initiatives to increase the understanding of the current realities and the challenges for universities in the region. These challenges relate to the future of research, teaching and community engagement. Early research studies include the 2007 studies on *Science, Engineering and Technology* and *ICT Infrastructure*. The study on *Access to Knowledge in Southern African Universities* provides a welcome and important contribution alongside the 2007 studies and addresses the question of scholarly publishing and dissemination. Scholarly publishing and dissemination is a necessary mechanism to foster the growth of science and technology research in Southern Africa. The study will form the basis for a major capacity building initiative over the next several years that seeks to build regional capacity for the establishment of a research publishing and dissemination platform.

In addition, the researchers involved in the study have developed basic capacities to research open access issues in higher education as a result of their participation in the study. Their future involvement in studies and initiatives of this nature could further strengthen their existing capacity.
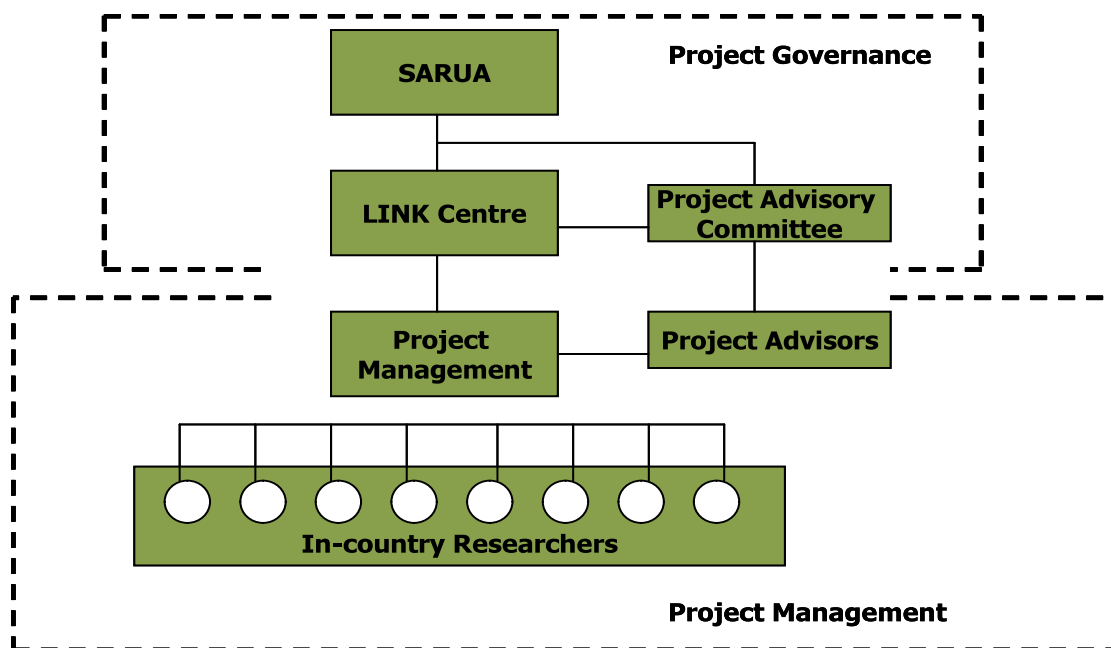
## 8. Project management

The project governance structure was comprised of representatives from SARUA (Ben McGarry) and the LINK Centre (Lucienne Abrahams), the project advisors, (Eve Gray and Andrew Rens) and the project manager (Mark Burke). Together, they constituted the Project Advisory Committee. The Project Advisory Committee (PAC) met at the completion of each phase of the project to review the deliverables and provide guidance on the activities for the next phase of the project. The role of the PAC also included ensuring that the necessary resources were made available for project implementation, major issues were resolved, risks were identify and measures implemented to mitigate such identified risks.

The LINK Centre was contracted to implement the project and was responsible for overseeing the implementation of the project. This oversight role included reviewing and quality assuring deliverables, managing risks and resolving issues. The LINK

Centre appointed a project manager who was responsible for implementing the project.

The project advisors consisted of resource persons with extensive knowledge and expertise in the Open Access environment. They were responsible for providing advice on the planning and execution of the project. SARUA provided excellent administrative support to ensure the smooth running of the project. Diagram 1 illustrates the governance and management arrangements.

**Diagram 1: Project Governance and Management Arrangements**



## 9. Impact

The findings of the study will be disseminated to the more than 66 universities in the 15 countries of SADC, for discussion.  In addition, it will hopefully serve as the basis for initiatives to establish a regional publishing and scholarly communication platform in partnership with a range of institutions.  The platform is intended to enhance public research output and increase the levels of scholarly communication in ways that support the social and economic development needs of countries in the SADC region.

A longer term measure of the impact of the project will the size and shape of any advocacy campaign that SARUA may undertake, the emergence of a successful regional platform as proposed in the study, and the tangible uptake of open access principles and the establishment of open access policies and procedures in universities in Southern Africa.

## 10. Overall assessment

The research project was the stimulus for a series of ideas about the ways in which SARUA and/or its members might address the gap in knowledge production and dissemination in member universities in the region. It provided an important opportunity to assess the specific conditions relevant to universities in the region so that potential solutions might be tailored to the circumstances in which these universities operate. The study further mobilised people from different disciplinary and professional backgrounds to consider the existing constraints to research and knowledge and to begin to think about tackling them in a practical but also systematic way.

The project has been very well managed, and its technical execution has been appropriate and successful, and well within budget.

## 11. Recommendations

Initiatives that touch on the core values and mission of universities have to be undertaken in a careful, sensitive and strategic manner. Universities in Southern Africa are under tremendous pressures and face what often appear to be overwhelming challenges, especially when it comes to taking their places internationally.

Intellectual enthusiasm is not enough for a programme or new way of thinking to succeed; a socio-cultural approach is also needed. The question of introducing open access approaches to knowledge production and scholarly communication requires a multipronged approach that involves a variety of dimensions within the institutional culture and setting of the university.

Consultation, inclusion, sensitivity, as well as innovation, advocacy and determination are the leading watchwords.