





Somali Research and Education Repository: Motivations, status, perspectives& Opportunities

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Outline

- Some background
- The Motivation
- Opportunities
- Implementation Issues
- The status
- The architecture
- Lessons Learned
- What is Next for SORER?





Some Background

- The Somali higher education sector has in the past 6 years accepted research as a critical output for international and national accreditation and started a trend of research production and management commitment
- SomaliREN's Digital Repository Services Initiative started as a response to this research focus of the member institutions
- Previous efforts to deploy DSpace as the platform for the repositories did not turn out as expected
 - A key challenge was the dependence on external resources to implement the system and provide support





Motivations

- Lack of localized open access research output
 - The limited research outputs produced by local institutions were not adequately showcased to interested constituencies and global citizens outside academic institutions
- Limited research output visibility
 - This has negatively branded the universities as in-competent to produce any form of research content
- Quality of the research output needed to be improved
- No measures against localized plagiarism that can severely impact academic integrity





Opportunities that drove the success of SORER

- Partnerships with key players in the Open Access and FAIR principles compliant repository sphere, especially INFN and the University of Catania
- Knowledge transfer, technical assistance and support with cloud infrastructure was available at UbuntuNet Alliance although we used our own infrastructure for the current deployment
- Available local expertise that could absorb and build on top of the skills and knowledge transfer
- A growing demand of digital repositories within our community





Implementation Issues

- Limited infrastructure resources to deploy the platform
- Limited technical resources
- New skills needed for the underlying technology
- No identity federation in Somalia
- No National Open Access Policy of Somalia for Higher Education
- Need for end-user community adoption of the repository which is a key limiting factor to the exponential growth of the repository content





SORER Status

- SORER is live now at https://sorer.somaliren.org.so/
- Conducted Two Introductory workshops so far:
 - Workshop for Rectors, VCs and Heads of Member Institutions
 - SORER Technical Workshop for University ICT directors and librarians
- 8 different Communities have been created so far on it by the members
- 18 researchers have already registered to SORER
- 15 different publications and presentations have already been published
- Open to non-SomaliREN users(thanks to the concept of "Communities")
- Every research output published on SORER will get a DOI for easy identification

(Thanks to UbuntuNet Alliance)



SORER technical guide has been prepared and published on the repository



Search Upload Communities

View

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The Transformational Impacts of Data Science on Business and Society

(b) Ali, Mohamed Khalif

This research paper summarizes the immense impacts of data science by analyzing information system technology and its relations with business and society. Digitization advancements have enhanced the generation of data that is used to provide insights that are essential in transforming businesses...

Unloaded on January 27, 2021

Video-recording of SORER Technical Workshop for University ICT Directors and

SORER Technical Workshop for University ICT directors was conducted on 18 January 2021. 48 participants from 23 institutions attended the virtual training to learn what SORER is and the role it can play to change the visibility of locally produced research content, how to use SORER, and to know.

Unloaded on January 19, 2021

SomaliREN Annual Report 2018

SomaliREN

This is the 2018 Annual report of Somali Research and Education Network

Uploaded on January 18, 2021

SERVICE DELIVERY & GOOD GOVERNANCE: THEORIES & IMPERICAL EVIDENCE OF ICT

Elmi, Abdiwahab

This presentation was presented at SomNOG4 in 2019

Uploaded on January 13, 2021

Somali Research and Education

- Research. Shared. all research outputs from across all domains of Somali research
- Findable, Citeable, Discoverable, each upload gets a Digital Object Identifier (DOI) to make it easily and uniquely citeable. You can (automatically) link your research outputs to your ORCID profile.
- Communities create and curate your own community for a workshop, project, Division. Laboratory, service, journal, etc. into which you can accept or reject uploads.
- Funding you can associate an upload to the grant that has funded the work.
- Flexible licensing you can choose among several licenses. You can also unload closed or embargoed research outputs.



WACREN @WACREN

There we go! Conference Workshops begin with the #cybersecurity session where experts are talking about trust-building, transparency and cooperation amongst #CSIRTs in Africa. They are agree that this should be cross-geographical united









SORER System Architecture

SORER has been configured and deployed using the <u>Synthetic procedure to replicate the INFN Open Access</u> <u>Repository</u>, which was originally written for the deployment of NADRE in Ethiopia

SORER:

Adopts leading-edge technologies in the domain of digital repositories such as

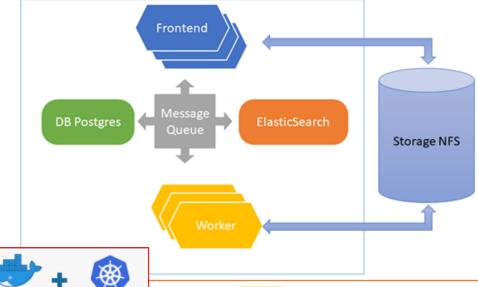




- Relies on containers and containers' orchestrators for maximum reliability and scalability
- Exploits the concept of "communities", which is central in the Zenodo architecture, to cope with several aggregations of contents: per University, per Department/Faculty, per project, etc.
- Supports DOI minting and versioning



- Is compliant with <u>FAIR principles</u>
- Is compliant with <u>Plan S</u> requirements







Lessons Learned

- Technical feasibility of any project should be ensured during the planning stage
- Openness in research and open access is critical for quality research output
- Openness is also key to tackling the plagiarism 'pandemic'
- Centralization of the repository for communities with shared interest and outlook can simplify the implementation, operation and support of the repository.





What is Next for SORER?

- SORER soft launch will be held online in the first week of April
- Development of strategies to make SORER part of the graduation thesis and conference organization workflows.
- Develop strategies and policies for enhancing the quantity and quality of publications and content in the SORER database
- SomaliREN to work with the relevant parties to prepare the National Open Access Policy of Somalia for Higher Education
- Promote Open Access/Open data in Somalia and across the continent to make science more efficient, reliable, and responsive to societal challenges
- Finalize the preparation of extensive resources based on the development of SORER in partnership with INFN and the University of Catania; and support other NRENs in the deployment and operationalization of repositories based on INVENIO and Zenodo





And last but not least...

"If you can't pay it back, pay it **forward**." — Catherine Ryan Hyde.

Together with our friends at INFN and the University of Catania, we are ready to support other NRENs in the deployment of similar solutions that are compliang with the Open Access and Open Science principles.





THE END

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شکر Thank you

> Grazie Merci



