EXPERIENCES OF/WITH OPEN ACCESS POLICIES AND GOVERNANCE MODELS OF FAIR COMPLIANT NATIONAL REPOSITORIES

THE CASE OF ETHIOPIA

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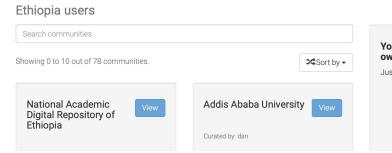- Governance and Leadership in NADRE

- Conclusion

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Performance Of The Ethiopian Shipping And Logistics Services Enterprises

Girma, Ermias;

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  collection is automatically
  exported via OAI-PMH
• Upload — get custom upload link
  to send to people

Introduction

2018:   The National Academic Digital Repository of Ethiopia (NADRE) has been established

2019:   NADRE handed over to the Ethiopian Research and Education Network (EthERNet)

2019 – until today: NADRE is a storage place for documents and artifacts such as thesis, conference presentations, videos, drawing, posters, etc.

Today: 10,358 records on NADRE (https://nadre.ethernet.edu.et)

Visibility: OAI-PMH, ROAR, OpenDOAR and OpenAIRE

Current Challenge: To bring NADRE alive as an instrument used and appreciated by researchers around the globe.

=> Governance and leadership are considered as key for success

Objectives

The objectives are

- to find out the most suitable approach for Open Access policies and governance model of Fair compliant national repository

    and

- how, the national repository could impact the research management and leadership.

Definitions of Terms

Governance

Governance in this context is considered as **Data Governance and or Information Governance**

- **Data governance is considered as a process** that
  - *"develops and implements corporate-wide data policies, guidelines and standards that are consistent with the organization's mission, strategy, values, norms and culture", (Weil, 2004).*
  - *is conceptualized as stewardship responsibilities and establishes the broad policies for access, management, and permissible uses of data; identifies the methods and procedures necessary to the stewardship process; and establishes the qualifications of those who would use the data and the conditions under which data access can be granted.(HSR: Health Services Research 45:5, Part II, 2010)*

- Governance is described by Ghavami (2016) **as "the execution and enforcement of authority over the management of data and data related assets."**

- Data and information governance is considered **as a framework of** nine **principles to create a people-centric process for governing federated data that achieves measurable improvements and changes in culture and behaviour** (https://www.dataversity.net)

Complexity of Governance

Data Governance includes the people, processes and technologies needed to manage and protect the company's data assets in order to guarantee generally understandable, correct, complete, trustworthy, secure and discoverable corporate data (https://bi-survey.com/).

The DAMA-DMBOK2 Guide Knowledge Area Wheel (source: https://www.dama.org/sites/default/files/download/DAMA-DMBOK2-Framework-V2-20140317-FINAL.pdf)

Ownership of Data & Information

■ The creator of information & data is the owner and has all rights about the data. This implicates that the owner manages the created data & information throughout the lifecycle of the data.

■ The creator of information & data can transfer the created data & information to a third party such as an university, who becomes the custodian of the data through-out its lifecycle. This transfer implicates the ownership on the data.

■ Digital Object Identifiers (DOI) of data and information stays with the document or artifact.

■ ORCID is linked with the creator of the document or artifact.

The University of New South Wales (UNSW) Sidney for example considers the university rather than any individual or Organisational Unit as the overall owner of organisational data. The ownership and the responsibilites are shared among the Data Governance Steering Committee, the Data Executive, Data Owners are the Custodians and Data Stewards (https://www.datagovernance.unsw.edu.au/).

Leadership

"Leadership is the process of defining current situations and articulating goals for the future; making the decisions necessary to resolve the situation or achieve the goals; and gaining the commitment from those who have to implement these decisions" (Brache, 1983).

- Leadership is the execution of the governance guidelines, rules and regulations.

- Leadership contributes to success, reputation or failure to repositories.

- Leadership includes the management of factors such as human resource, technologies, laws and regulations.

Standards and Principles of Information & Data Quality Management applicable for
Open Access Open Data Open Science

Standards of Information

Hänninen, Luoma and Mitronen (2020) have collected the following definitions of information standards:

■ Information standards define how organisations collaborate and exchange information, to realise more benefits from inter-organisational collaboration (e.g. Bala and Venkatesh 2007)

■ Information standards are set guidelines for how organisations coordinate technical interoperability to reduce uncertainty and spur growth (e.g. Ranganathan, Ghosh, and Rosenkopf 2018).

■ Information standards, or more specifically compatibility standards, as formal or informal agreements regarding how distinct components of a specific technical system interact and interoperate (Leiponen, 2008)

Principles of Information

With reference to the National Archives (https://www.nationalarchives.gov.uk/information-management/manage-information/planning/information-principles/): „The information principles enable organisations across the public sector to become increasingly aligned in their use and management of information (both structured and unstructured), drawing on their own local strategy and practices from a common set of principles and best practices."

Data Quality Management

- Data quality management (DQM) is built on data governance as a framework for management decisions. The DQM roles and decision areas are brought together in a data governance model. The decision areas in DQM refer to the data quality strategy, the data quality organisation and the data quality architecture (Wende, 2007).

- The interactions between the decision areas and the roles are described as responsible (R), accountable (A), consulted (C) and informed (I) or in brief as RACI, that depicts the kind of responsibility a role has for the specific DQM activity or decision (Weber, Otto, Oesterle, 2009).
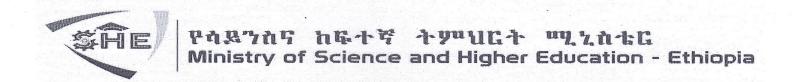
Comparing the Usefulness of the FAIR Principles for Data Governance

FAIR Principles

- Data & information on Open Access repositories have to follow the FAIR principles. Data needs to be findable, accessible, interoperable and reproduceable.

- There is the discussion, whether thesis can be uploaded to repositories, if data collected for the research published in the thesis is not provided as database.

- It is a leadership issue that the repository managers and data management plan (DMP) advisors respectively data stewards guide researchers to provide the data base in the quality of the FAIR principles.

National Open Access Policy of Ethiopia Higher Education

https://nadre.ethernet.edu.et/record/4193#.YLVogSORrfY

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Ministry of Science and Higher Education - Ethiopia

NATIONAL OPEN ACCESS POLICY OF ETHIOPIA FOR HIGHER EDUCATION

1. Aims and Scope of the Policy

The Federal Democratic Republic of Ethiopia (FDRE) Ministry of Science and Higher Education is committed to supporting research of high quality and to ensuring that public research spending will lead to a maximum economic and social return. The FDRE Ministry of Science and Higher Education supports the principles of OPENNESS to research outputs and processes as integral to research excellence as well as the sharing and creation of new knowledge.

The policy applies to all research outputs authored/created, or co-authored/co-created, by employees of Ethiopian universities; this includes research outputs of graduate students and PhD students. It complements and does not override the Open Access requirements of research funders as they apply to their funded research.

Researchers and research students have to make themselves visible and findable, using persistent identifiers such as ORCID IDs, and their outputs available on an Open Access basis, if their research resulting entirely or partly from public funding.

For this purpose, the FDRE Ministry of Science and Higher Education has defined the following policy which must be observed by all recipients of public research funding as of June 17,2019.

Governance and Leadership in NADRE

Governance in NADRE

The team working on the repository in the Ethiopian case consists of the Ethiopian Research and Education Network (EthERNet) manager, the Higher Education Strategy Center (HESC), university presidents, university librarians and data stewards provide all stakeholders:

- guidance in order to manage the repository in line with the repository governance has the focus on
  - *availability, usability, integrity, transparency and security of data and artefacts in the repository for the purpose of consistency in the different faculties and institutes;*
  - *common understanding about the repository;*
  - *the quality of provided artefacts and data;*
  - *compliance with rules and regulations of the provision and ownership of the artifacts and data.*

As a survey conducted in 2020 shows that so far NADRE:

- is with the EthERNet and the library ICT responsibles at university level.

- Data Steward positions as such have not yet been implemented.

- Data Management Plan (DMP) activities have not been started at university level, while training-of-trainers took place in 2018 and 2019.

Leadership in NADRE

- NADRE is Ethiopian universities' research window to the world.

- NADRE should become the center piece of national and international research collaboration.

- The leadership of NADRE impacts on one side the staff assigned – at university level - to the repository (institutional repository) and on the other side it is the management of NADRE (national repository).

- Explicit communication strategy about the use of NADRE is required in order to make NADRE as a display of national foci.

  Examples:

  - to publish the number of new publications contributing to certain topics
  - to find the most popular topics of research within a period
  - to link published research topics with national economic indicators, culture or other particularities

Conclusion

- It is an imperative for repositories to have a data & information governance framework in place that clarifies how to create, store, share, dispose and manage information.

- Repository leadership is structured in the leadership inside of the repository team and outside of the the repository team (community of researchers and stakeholders).

- Good governance and leadership of a repository supports the quality of national research as well as has the possibility to direct research of a nation towards national strengths such as the nation's economic performance, identity, culture, particularities etc.

$\Rightarrow$ **Repositories need a business like approach in terms of governance and leadership**

$\Rightarrow$ **The FAIR principles describe the quality of the repository**

Thank you

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