# Open Access in India

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Member, Technical Advisory Board, Research Data Alliance Member, GSF, OECD [EG, Business models and Repositories Infrastructures]

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#### Government of India initiatives

http://data.gov.in

- The National Data Sharing and Accessibility Policy [NDSAP]
- NDSAP applies to all data and information created, generated, collected and archived using public funds provided by Government of India directly or through authorized agencies by various ministries/Departments/Organizations/Agencies and Autonomous bodies.



#### Indian Council of Agricultural Research



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#### ICAR at a Glance

ICAR adopts Open Access Policy

- About us
- Vision 2020
- Vision 2030
- Vision 2050
- AICRPs & Network Projects
- Research Institutes
- Agricultural Technology Application Research Institutes
- Krishi Vigyan Kendras
- Technologies & Products for Commercialization
- Technologies and Knowledge Resources
- IP&TM and PME
- ICAR Award 2016
- ICAR Awardees

- Each ICAR institute to setup an Open Access Institutional Repository.
- ICAR shall setup a central harvester to harvest the metadata and full-text of all the records from all the OA repositories of the ICAR institutes for one stop access to all the agricultural knowledge generated in ICAR.
- All the meta-data and other information of the institutional repositories are copyrighted with the ICAR. These are licensed for use, re-use and sharing for academic and research purposes. Commercial and other reuse requires written permission.
- All publications viz., research articles, popular articles, monographs, catalogues, conference proceedings, success stories, case studies, annual reports, newsletters, pamphlets, brochures, bulletins, summary of the completed projects, speeches, and other grey literatures available with the institutes to be placed under Open Access.
- The institutes are free to place their unpublished reports in their open access repository. They are encouraged to share their works in public repositories like YouTube and social networking sites like Facebook ®, Google+, etc. along with appropriate disclaimer.
- The authors of the scholarly articles produced from the research conducted at the ICAR institutes have to deposit immediately the final authors version manuscripts of papers accepted for publication (pre-prints and post-prints) in the institute's Open Access repository.
- Scientists and other research personnel of the ICAR working in all ICAR institutes or elsewhere are encouraged to publish their research work with publishers which allow self- archiving in Open Access Institutional Repositories.

APPROVED OAP



#### Department of Biotechnology and Department of Science & Technology Ministry of Science & Technology Government of India

#### DBT and DST Open Access Policy Policy on open access to DBT and DST funded research

The Department of Biotechnology ("DBT") and the Department of Science and Technology ("DST") are constituent departments within the Ministry of Science and Technology, Government of India.

An important function of the DBT and DST is to support basic, translational and applied scientific research through the creation of suitable infrastructure, by providing funding to individual scientists, institutions and start-ups, and through any other means deemed necessary.

Since all funds disbursed by the DBT and DST are public funds, it is important that the information and knowledge generated through the use of these funds are made publicly available as soon as possible, subject to Indian law and IP policies of respective funding agencies and institutions where the research is performed<sup>1</sup>.

The DBT and DST recognize the right of researchers to publish their work in journals of their choice, because researchers are the best judges of where to publish their work. The DBT and DST expect that the recipients of funding will publish their research in high quality, peer-reviewed journals.

The DBT and DST affirms the principle that the intrinsic merit of the work, and not the title of the journal in which an author's work is published, should be considered in making future funding decisions. The

# Council of Scientific & Industrial Research (CSIR)

CSIR constitutes a chain of about 40 laboratories and 50 field stations across the country in different fields of Science and Technology. Each of these laboratories generates huge data and have data repositories, partially/fully available in public domain.

#### INFLIBNET

DRTC, Indian Statistical Institute, India

(http://www.inflibnet.ac.in/)

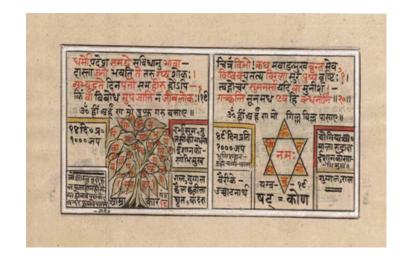
- Information and Library Network (Inflibnet)
  - □ A gateway to India's Academic & Research Community
  - 433 participating university libraries in INFLIBNET eShodh Sindhu consortium
  - creating infrastructure for sharing of library and information resources and services among Academic and Research Institutions
  - Shodh Ganga

# National Mission for Manuscripts

(http://namami.nic.in/

- To save the most valuable (but less visible) cultural inheritances
  - Indian Manuscripts





Save Our Manuscript Wealth for India's Future

# National Mission for Manuscripts

- Manuscripts digitized from:
  - Palm Leaf
  - Paper
  - Bamboo Leaves
  - Cloth

# OERS - Open Educational Resources

### SWAYAM and epthashala

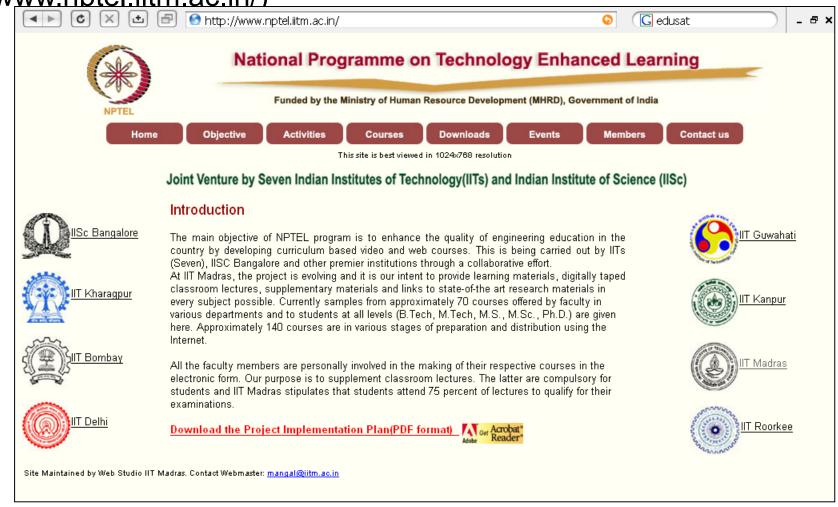
MHRD, Gol

- SWAYAM is a MOOC programme initiated by Government of India
- The objective of this effort is to take the best teaching learning resources to all, including the most disadvantaged.
- SWAYAM seeks to bridge the digital divide for students.

#### National Programme on Technology

Enhanced Learning (NPTEL) (http://

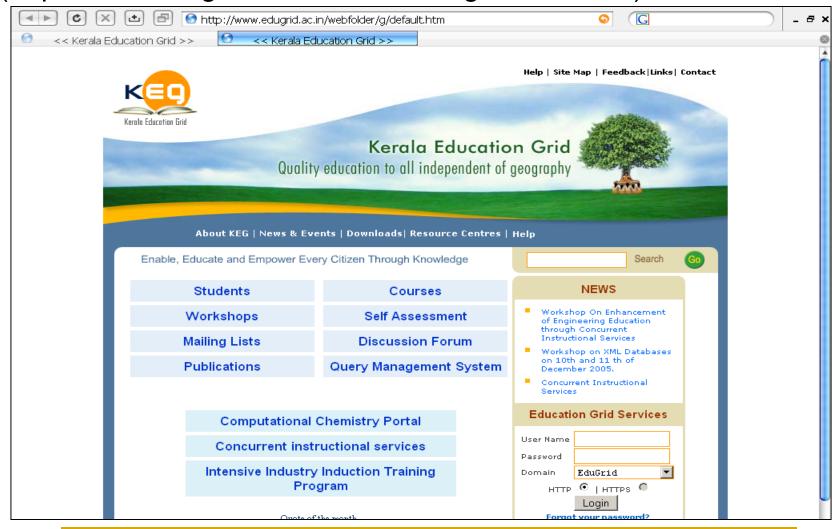
www.nptel.iitm.ac.in/)



#### **Education Grid**

DRTC, Indian Statistical Institute, India

(http://www.edugrid.ac.in/webfolder/g/default.htm)



To provide quality education to all students independent of geography

# Major Open Repositories Indian Statistical India

- Librarians' Digital Library (https://drtc.isibang.ac.in)
  - DSpace Digital Library software
  - Open repository of LIS publications

# Librarians' Digital Library (In State DL)

(https://drtc.isibang.ac.in)

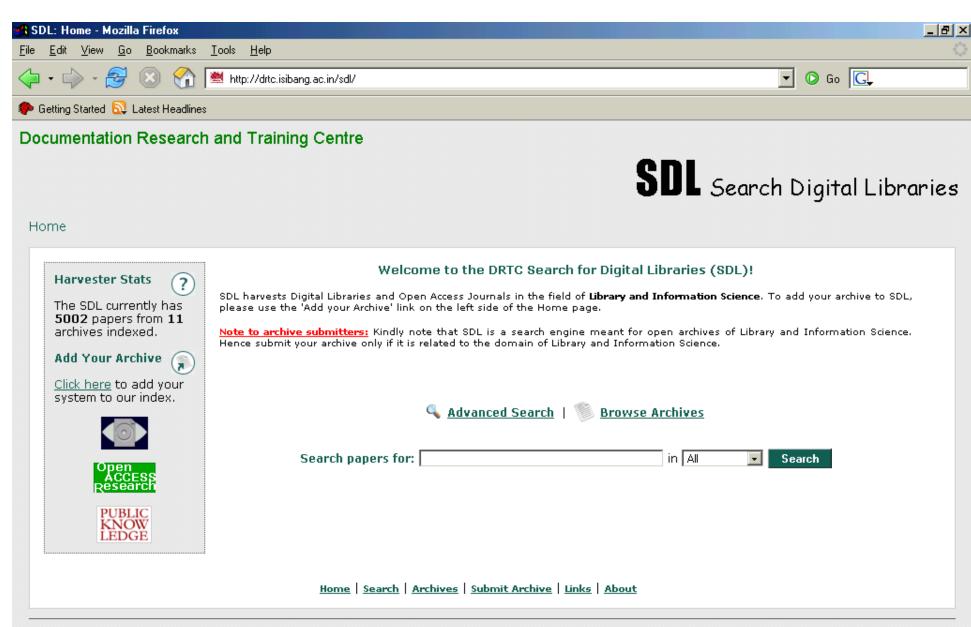


#### Harvester

- Search Digital Libraries [SDL]
  - http://drtc.isibang.ac.in/sdl
- First LIS harvester in the world

#### **DRTC-ISI**

- First DSpace Digital repository in India
- First thematic repository on LIS in the world
- Held about 54 workshops
- Brought up 15 repositories in India, Sri Lanka



#### <u>Documentation Research and Training Centre (DRTC)</u>

Indian Statistical Institute 8th Mile Mysore Road, RV College PO, Bangalore- 560 059. India Phone: +91 (80) 2848 3002-6 Fax : +91 (80) 2848 4265 Email : ard@drtc.isibang.ac.in

#### **INDUS**

• ISI as part of AGINFRA an FP7 eInfrastructure project of the European Commission

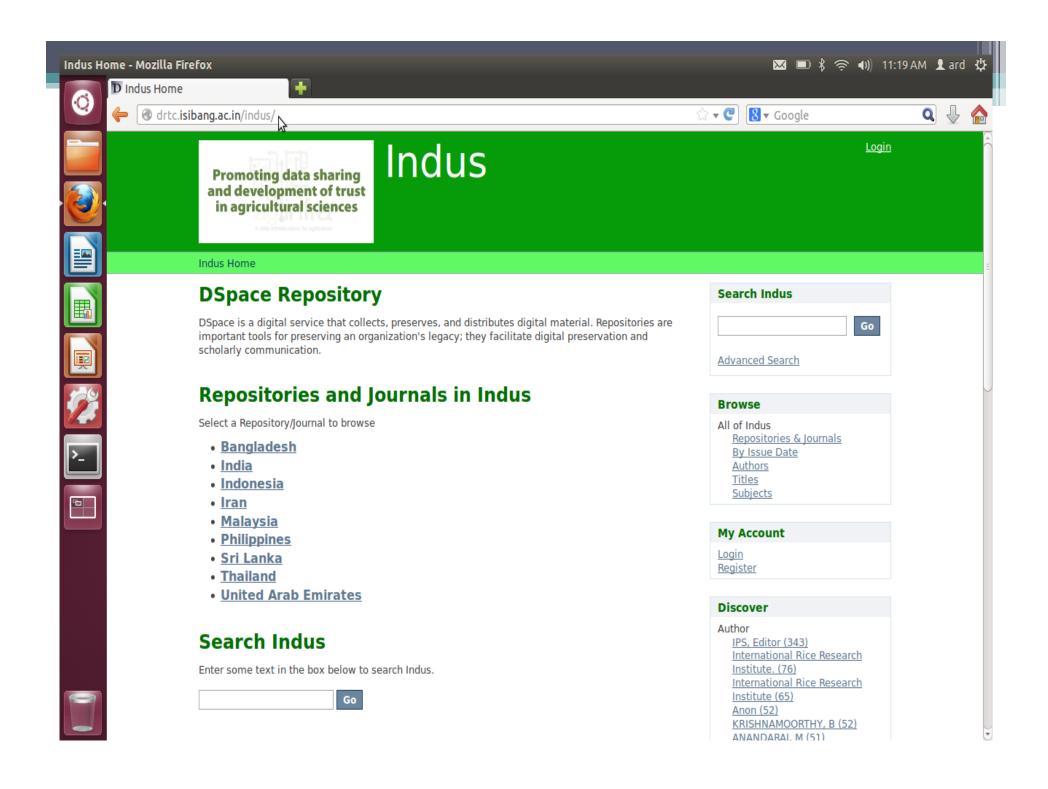
Contributed INDUS

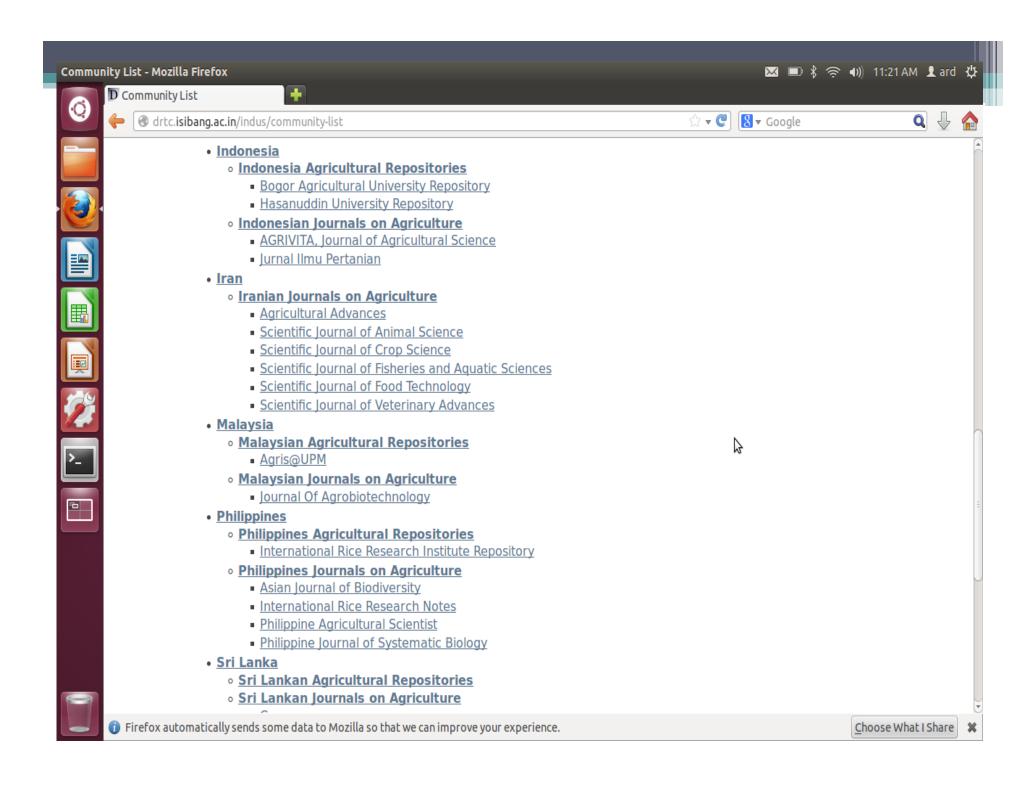
# Harvesting Asian Agricultural Digital Repositories

- 48 Asian Countries
- 26 Countries have repositories (openDOAR)
- Around one third of them have exclusive Agricultural repositories
- More OAI-based Ag. Journals

#### Indus

- Indus covers both repositories and OAI based Journals
- Presently,
  - About 10 countries metadata is harvested
  - 57 Journals on Agriculture
  - 18 Digital Repositories
  - About 100k records





## **CALIS**

• Current awareness in LIS

#### Training Workshops and Conferences

- 54 DSpace workshops
- International workshop on Data repositories in collaboration with ICSU-CODATA
- International Conference on Big Data and Semantic web
- Next Workshop: International Training workshop on Data Repositories (Feb 2017)

### Data repositories

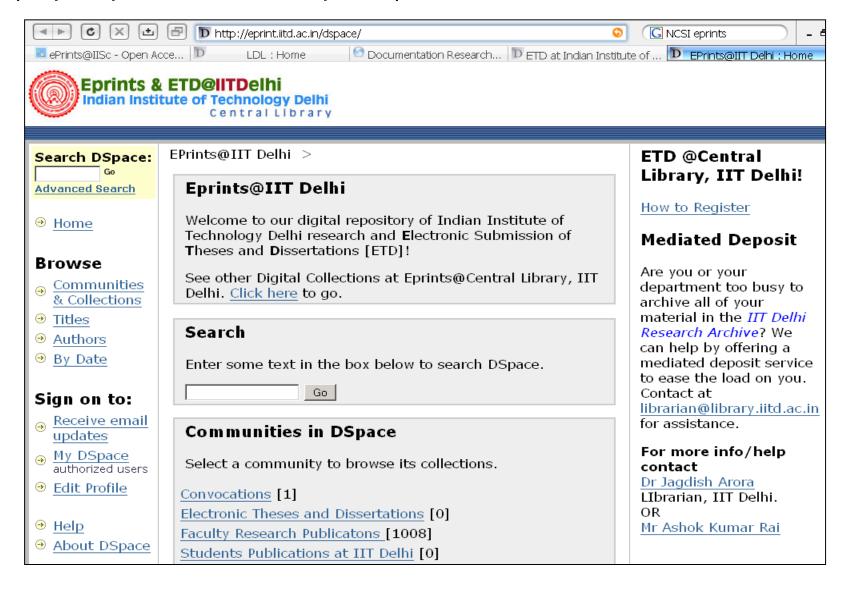
- CKAN: Mostly government
- Dataverse: Linking data to publications, allows data citation
- Dryad: Based on DSpace
- Geonode

# Many Others

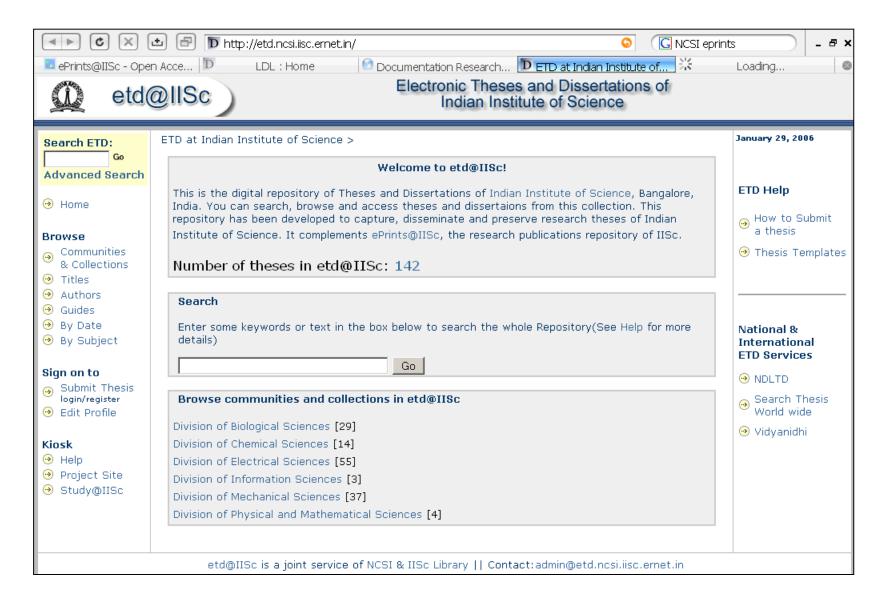
- IIT Delhi (DSpace)
- etd@IISc (DSpace)
- NCRA, TIFR
- NCL
- ePrints@IISc
- OpenMed@NIC
- University repositories
- •••
- •••
- •••

#### Eprints & ETD @IIT Delhi DRTC, Indian Statistical Institute, India

(http://eprint.iitd.ac.in/dspace/)



#### etdellSc (http://etd.ncsi.iisc.ernet.in/)

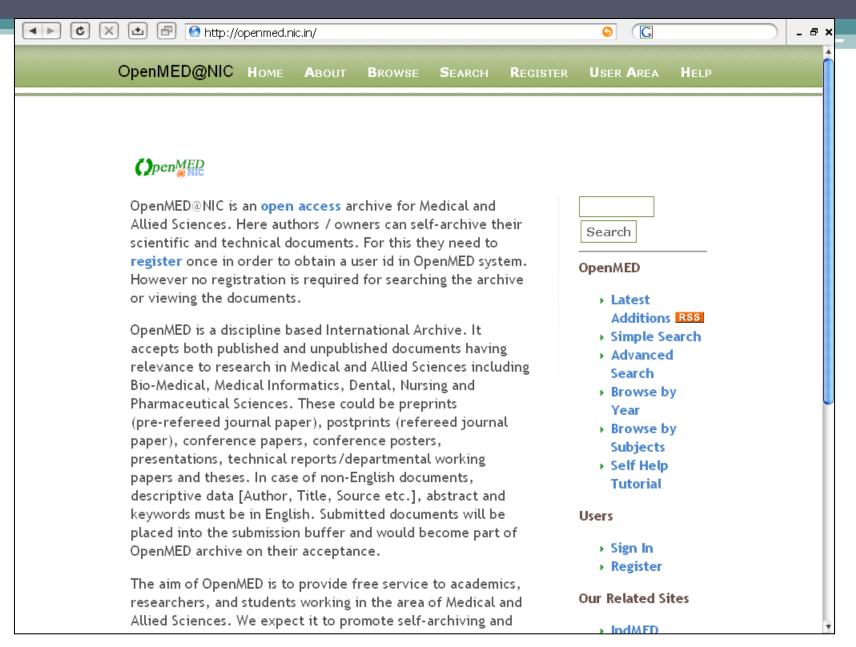


# OpenMed@NIC (http://openmed.nic.in/)

- Open access self-archive for Medical and Allied Sciences
  - International Archive
  - Both published or unpublished research papers
    - Preprint, post-prints
    - Conference papers
    - Technical/Working Reports, & many more ...

#### Open Index Initiative (<a href="http://oii.igidr.ac.in/">http://oii.igidr.ac.in/</a>)

OII of the Indira Gandhi Institute of Development Research (www.igidr.ac.in/) is an initiative to develop an online and searchable bibliographic database for most of the Indian Social Science literature and resources available in Indian libraries.



# Disciplines and Domains

- Agriculture
- Astrophysics
- Engineering
- Library and Information Science
- Medicine
- Meteorological
- University [multi disciplines]

Open Access India

- Advocating Open Access, Open Data and Open Education
- Launched as online advocacy facebook group on July 8<sup>th</sup>,
   2011
  - Facebook group membership:10248
- Grown into community of practice



Courtesy Sridhar Gutam, OAIndia

# Aim and objectives

- Advocacy sensitizing the students, researchers, policy makers and general public about Open Access, Open Data and Open Education.
- Development of community e-infrastructure, capacity building and framework for policies related to Open Access, Open Data and Open Education.

#### **UNESCO** collaboration

#### Guidelines for Open Data and Data Repositories

· A.R.D.Prasad and Devika Madalli

## Open Access Principles

Free knowledge from shackles of economic compulsions

'Knowledge unto him who produces knowledge'.

- Making a case for OA material; no matter
   'Scholarship is the same; priced or open'.
- Be optimistic, working towards national level policies and Mandates

'If one is convinced, others will be too'.

# **Adopting Open Mantra**

Use

Open Source tools

With

Open Standards

to create

Openly accessible Content

# Challenges

- Cultural diversity and multilingualism
- Peer review is an accepted notion
- Awareness deficit
- Mandates of OA policy and funding is slack and slow
- Infrastructure levels are far below than desirable with non-affordability to Internet, poor electricity supply, quality of living among other factors
- Digital divide is wide and prevalent

## Opportunities

- Embarking on ICT development eGovernance, distance education, eLearning and online information services
- Government directly in the sector
- Growing Community

#### **Possibilities**

- Collaborative platforms: The networked world facilitates collaborative working in consortia mode enabling upscale economy, interoperability and at the same time proofing data.
- Late starters have great advantages!!

#### Recommendations

- COAR OS Support
  - Multilingual vocabularies
  - Integrate OpenURLs
  - OA scholarly publications+data??
  - Metadata for data repositories
  - Open Metrics

#### THANK YOU

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