

Nigerian Nuclear Regulatory Authority

From the Selected Works of Nkiru Opara

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Digitization of Enduring Heritage

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DIGITIZATION OF ENDURING HERITAGE OF NNRA



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OUTLINE



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Objectives



Enhance access-

- Share folder
- Zonal offices

Improve preservation-

- considered that nuclear knowledge is unique, some are base on research and experiences
- Ageing workforce,
- Transfer or loss of workers

Mentoring-

- Tacit knowledge not documented

Objectives cont'd



Encourage globalization of local information content

- 85% of our clients do business online, students depend on Google for most of their works,
- Use training, conference topics, experiences from the work, abstracts, index to Create awareness

Introduction



We are in

- democratization of information stage
- nuclear industry is knowledge based from inception and relies heavily on the accumulation of this knowledge gathered over the years from research for power, non-power applications, and future innovations socioeconomic development.
- And one of the objectives of school of NKM is to encourage nuclear organizations to make deliberate effort in gathering this unique knowledge against retirement, loss or transfer of staff. Technical Document (TECDOC 1510)

Nigeria and document management



National archive act part 11 section 3

Responsibilities of records management

- (1) The head of a public office shall make or cause to be made or filed such records which are essential for-
- (a) the continuity of his office;
 - (b) the full documentation of its organisation, functions, policies, procedures and transactions; and
 - (c) the efficient, economical and orderly execution of its duties.

Enduring Heritage



Heritage materials play a vital role in establishing the identity, the accomplishments and values of a people. 'Knowledge is an asset'

- Data-representation of facts, concepts to be communicated, not yet knowledge or information.
- Information-organised data, form that has meaning, provides why, where, how questions
- Knowledge-reassembling of the facts, organized data which is the information, applying the data and information to think creative, solve problems and make judgements.

Enduring Heritage Cont'd



So, in summary we actually want to gather knowledge in the field below ;

- nuclear facilities
- Activities using sources of ionizing radiation
- Radioactive waste management
- The transport of radioactive material
- Radiation protection activities
- Regulations of such facilities or activities
- Any other practices or circumstance people may be exposed to natural occurring or artificial sources

Digitization



Having considered all we have, and the risk of losing these information through disaster, transfer, retirement, loss of life etc we propose digitization

Masakazi (2009) defined digitization as the creation of multimedia databases which offer easy access to cultural and scientific heritage for large population of users

Digitization is the process of creating digital files by scanning or the use of digital cameras to convert analogue materials to digital equivalents

Digitization encourages globalization of local information content and localization of global information resources.

Digitization cont'd



Some documents are

- born digital, and
- some like the definition in the previous slide you scan and convert to digital.

In digitization we have;

- mass
- non-mass and
- large scale digitization.

Duration of digitization

- can be long, short or medium term

Process of digitization



- Selection-What do we have to preserve, and how are their present status.
- Assessment - all that will be needed in terms of (material, physical, and human resources)
- Prioritization-where do we start from, and who does what
- Preparation of originals for digitization-considering issues of Intellectual Property rights management
- Metadata collection and creation
- Submission of digital resources to delivery systems and repositories-This involves evaluation and quality control

Benefits



- Ensures the availability of critical business documents for business continuity and disaster recovery
- Reduces organizational cost (Books)
- Reduction of the amount of paper in business processes
- Refer to records of past transactions in order to perform subsequent actions;
- draw on evidence of past events to make informed decisions for the present and future.

Benefits con't



- Provides the basis for openness, verification of facts and accountability.
- Protects individual rights, enforce legal obligations, and handling of legal
- account for its actions and decisions when required to do so

Nuclear knowledge Management Clip



‘Nuclear Knowledge Management must be developed and retained over long time frames to service operational nuclear facilities, other related activities over longer time frames to enable global sustainable growth. **In other words nuclear management must be developed, shared and transferred over many generations’**

Introduction to nuclear knowledge management , IAEA Learning Management System

Nuclear Knowledge



Since nuclear knowledge is unique in many ways, managing it requires specific programmes and needs to achieve specific objectives. Without diligence in managing this knowledge, substantial portions could be disused or discarded as a result of changing priorities or it could get lost due to staff retirements.

So, we are introducing Dspace

Dspace



Dspace is a digital repository software platform with broad functionality for the capture, management, preservation and redistribution of digital scholarly research materials in a variety of formats, for a variety of purposes (Walker, 2010).

Dspace was developed to solve the problem of providing a long-term home for digital materials, thus Dspace focused on open knowledge sharing and long term preservation concept.

Features



- **Web Interface:** DSpace's current user interface is web-based
- **Data Model:** Communities and Collections (faculties & departments). Dspace organizes contents into communities and collections. Collections contain items that are similar in some ways such as source, purpose, existing series or audience research topic, subject matter. Each collection has an approval process that includes combination of approval roles. Users choose a collection to submit items which could be conference presentation, research paper, an annotated series of images etc (Iwundu and Ifeanyi, 2010)

Features



- **Authentication:** Authentication is when an application session positively identifies itself as belonging to an e-Person and/or e-people group (password, LDAP, shibboleth, IP) .
- **Disseminate/Search and Browse:** DSpace offers users the capability to search DSpace for items of interest.
- **Submission workflow** (Reviewers/workflow1, Approvers/workflow2 and Editors/workflow3)

Features



- **Disseminate/Search and Browse:** DSpace offers users the capability to search DSpace for items of interest.
- **Manage and Administer:** In addition to the end-user interface available to all DSpace users, DSpace also offers an administrative user interface, from which administrative functionality can be conveniently accessed.
- **Statistics:** The statistics user interface displays; total visits of the current community home page, visits of the community home page over a time span of the last 7 months, top 10 country from where the visits originate, and top 10 cities from where the visits originate

Features



- **Metadata:** DSpace uses a qualified Dublin Core metadata standard for describing items intellectually. The basic DC elements are: title, creator, subject, description, publisher, contributor, date, type, format, identifier, source, language, relation, coverage and rights.
- **E-People:** DSpace calls users e-people, since some users may be machines rather than actual people (hold info about the E-person firstname, lastname, email).
- **Authorisation:** DSpace features a fine-grained authorization system that enables individual e-people and e-people groups to have permissions on individual objects in the system

Advantages of Dspace



- Dspace has the largest community users and developers that provides frequent upgrades
- It is completely customizable
- It is effective for long term preservation of digital material.
- Friendly user interface and it possesses basic and advanced search capabilities
- Support all file format.

Dspace Metadata



Installation and hosting of Dspace

For local host- for documents and organizational values

- Technical documents, IAEA safety standards, TECDOC, NCRP, ICRP, Newspaper Clips and other documents which NNRA does not have right of ownership are to be accessed in the Dspace local host.

For worldwide web (to educate the public and create awareness)

- In House Seminars, Articles, Presentations, Thesis, and Publications, from the four Departments will be accessed in the Dspace Worldwide Web.

These topics have been sent to some of us to develop;

- Disposal of Radioactive waste
- Applications of ionizing radiation in medicine, industry, agriculture and research
- Control of sources of ionizing radiation
- Nuclear fuel fabrication etc

Dspace Display



Shown from the localhost.....

Recommendations



Other needs have been met, subsequently

- Review of documents to preserve
- Collaboration-articles, thesis, training materials from departments.
- Review and edit documents to host



THANK YOU