YUSUF MAITAMA UNIVERSITY DSPACE INSTALLATION PROPOSAL

PREPARED FOR

Yusuf Maitama Sule University, Kano.

PREPARED BY

JAM TECH Technologies

07066031881

23rd/01/2023

The Librarian,
Yusuf Maitama Sule University
Kano, Nigeria.

Dear Sir/Ma

PROPOSAL FOR THE INSTALATION OF DSPACE FOR YUMSUK LIBRARY

I submit for your consideration a proposal for the development of DSPACE for YUMSUK Library. This document contains a highlight of the proposed system features and how the Institution will benefit from the system, the cost of implementation is also given subsequently.

Finally, I wish to assert we have the technical skills and experience to develop a robust and reliable system, having worked on similar systems which are highlighted below;

Project	Description	Client
www.maaunlibrary.ng	Maryam Abacha American University of Nigeria, kano	MAAUN
www.northpad.ng	Northern Nigerian Community Lifestyle Platform	Northpad

I will be glad to hear from you soon.

Yours Faithfully,

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EXECUTIVE SUMMARY

DSpace has over 3000 organizations that are currently using the DSpace software in a production or project environment. The most common use is by research libraries as an institutional repository, however there are many organizations using the software to host and manage subject based repositories, dataset repositories or media-based repositories. DSpace is built to be flexible and customizable for any organization.

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2. Project Definition

2.1 OBJECTIVE

The objective of this project is to:

- Develop a digital institutional repository for YUMSUK University using DSpace;
- Identify services that will be made available via DSpace;
- Formulate general policies and guidelines for submitting digital objects to DSpace;
- Customize DSpace according to the needs of clients and the four identified focus areas.

2.2 SCOPE

The scope of this project is to:

- Conduct an analysis of user requirements;
- Structure Collections and Communities within DSpace in collaboration with representatives from the various focus areas;
- Identify metadata elements as applied to the various Collections in collaboration with representatives from the various focus areas;
- Structure the workflow within each Collection in collaboration with representatives from the various focus areas;
- Provide ongoing training and support to clients;
- Host and preserve materials within faculties;
- Supply system monitoring, back-up and recovery;
- Offer a web-service which will provide access and support to clients;
- Internally market the new system at UP and the library;
- Report on progress to the Digital Repository Management Committee, and to the Library Management Team;

The following is not in the scope of this project:

- External marketing;
- Negotiating for required hardware and software to continue with this project;
- Policies, procedures and project plans for each specific Collection (will have to be compiled by the coordinators of the four focus areas).

2.3 STRATEGY

The strategy for the development of this project will be:

- ✓ **Analysis**: A needs analysis will be conducted to be sure that the needs of the UP community are addressed;

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- ✓ **Design**: This implies a structural design, rather than a graphical design. Designing and customization of the DSpace open source software application in alignment with the E-strategy of the library and UP;

- ✓ **Development**: Development of the open source software application to address the needs of the UP Community, in collaboration with the international DSpace Federation, within the structure decided upon;

- ✓ **Implementation**: Implementation of the open source software by uploading digital objects identified by the four focus areas;

- ✓ **Evaluation**: Evaluation (Summative and Formative) of the institutional repository to be sure that the needs of the UP community are met.

3. APPROACH

3.1 ANALYSIS

A needs analysis will be conducted to be sure that the needs of the UP community are addressed, and also to identify deficiencies and address tools and features the community can benefit from. This will consider the main objectives of the Library E-Information strategy, i.e.:

- To take part and make a contribution to the international e-information phenomenon, e.g. open access, digital preservation, eScience, content management;
- To support education innovation and research excellence at UP;
- To deliver optimal e-information portal services (workflow) to our clients.

3.2 DESIGNING THE STRUCTURE OF THE DIGITAL REPOSITORY

In designing the digital repository, we will make use of the submission, digitization and metadata standards compiled by the various workgroups. We acknowledge the fact that these documents are still "work in progress".

We plan to use a sectional structure in the digital repository where the content will be presented as different Top-level Communities, Sub-Communities within the Top-level Communities, and Collections within the Sub-Communities. An example of this structure is illustrated on the following page:

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The following digital objects were identified (Pienaar, 2004) to be submitted to the various Collections within DSpace:
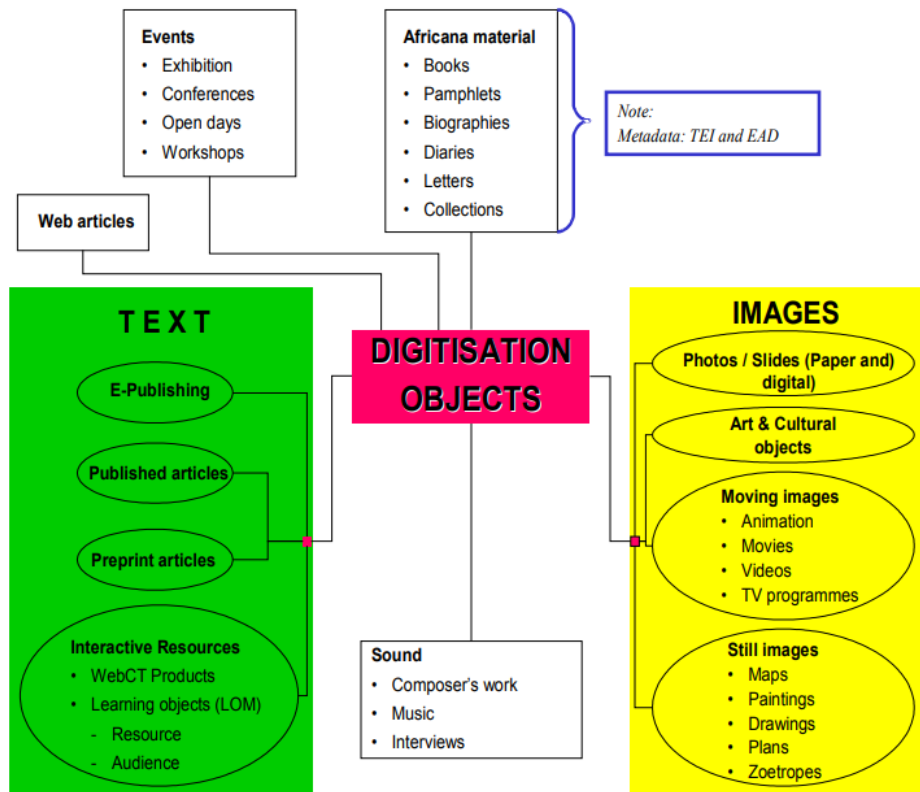

Figure 2: Digitisation Objects

3.3   DEVELOPMENT OF THE DIGITAL REPOSITORY

The development of the digital repository will be guided by the following:

- Existing Collections, Centres, Schools, Faculties and Departments within the structure of the University of Pretoria;
- The following focus areas that were identified: Africana Collection, Digital Learning Objects, Open Access (Scholarly Communication), Arts and Culture Digital Objects;
- Digital objects submitted to the institutional repository will include the following:
    - Text (E-Publishing, Published articles, Preprint articles, Interactive resources)
    - Events
    - Web articles
    - Africana material
    - Sound
    - Images

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3.4 SERVICES

Services that will be made available via DSpace:

- Submission services
- Access Services
- Community Management Services
- User Support Services
- Core Repository Services
- System Management Services

3.5 MANAGEMENT, STAFFING, IT SUPPORT AND TRAINING

Management Team

The Management Team will be responsible for the following:

- Management of UP Digital Repository;
- Formulation of policies related to system enhancement and direction;
- Establishing procedures;
- Marketing of new product;
- Management of platform;
- Training of clients;
- Negotiating for funding and other resources;
- Consultation with clients

3.6 CO-ORDINATORS

The coordinators of the four focus areas identified will be responsible for:

- Compiling their own teams from existing library staff, contracting time and availability of team members;
- Compiling project plans;
- Formulation of procedures and policies regarding specific Collections and Communities;
- Recommendations regarding system enhancements and direction, requirements for communities and contributors, content, its nature and intended use in the DSpace environment, service offerings;
- Selection criteria;
- Metadata application (for retrieval);
- Workflow;
- Recommendations regarding services, standards, functionality;
- Promote and market DSpace concept and system within UP community.

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3.7   DSPACE SYSTEM MANAGER

The DSpace System Manager should have the following skills:
- Technical management skills;
- System monitoring, testing, debugging;
- Develop portions of DSpace related to system administration;
- Monitor and upgrade DSpace utility programs and middleware;
- Develop approved system enhancements;
- Manage hardware contracts and system administration;
- Java programming;
- Networks;
- Unix/Linux Server.

3.8   DSPACE USER SUPPORT MANAGER

The DSpace User Support Manager will be responsible for:
- Client Support Training;
- Coordinate and manage the definition and setup of new DSpace communities;
- Plan and implement usability tests;
- Make recommendations on new functionality for DSpace;
- Chair the DSpace Workgroup;
- Write and maintain user documentation for the system, help pages;

3.9   WEB MANAGER
- Apply usability and user interface design knowledge and expertise;
- Integrate DSpace into UP web-sites.

3.10   METADATA SPECIALIST
- Share knowledge and expertise about Qualified Dublin Core (as implemented by DSpace) and consult with the DSpace User Support Manager on questions, issues related to the MARC to Dublin Core metadata crosswalk;
- Adaptation of metadata elements in DublinCore registry of DSpace according to Metadata Standards document;
- Provide training

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3.11 DIGITIZATION SPECIALIST

The DSpace System Manager should have the following skills:

- Serve as knowledge expert for digital preservation issues;
- Provide training;
- Share knowledge and expertise on matters of archival selection, preservation and UP records policies;
- Provide advice regarding scanning of paper or microform documents to digital formats, as well as reformatting of documents already in a digital format

3.12 INFORMATION SPECIALISTS

Provide general information about DSpace as a service of the library and UP;

Alert users to the information potential of the repository;

Assist end-users with searching the repository;

Answer end-user questions about DSpace;

Provide information about the possibility of contributing to the repository.

3.13 SYSTEMS DIVISION

Serve as backup for the work of the System Manager. Provide some technical support for the DSpace platform and application, and integration with other library systems.

3.14 MEETINGS

The Management Team will meet once a month. Members of various focus areas will meet quarterly. Constant interaction between the Management Team and Focus Areas will guide the process.

3.15 TRAINING

Different levels of training will be provided to different groups within the library and UP. A detailed training program will be made available at a later stage.

All Library Staff

Basic understanding and use of DSpace, its mission and services

Information Specialists, Coordinators & Representatives of focus areas

In-depth DSpace Training

Cataloguing Staff

DSpace Metadata, DublinCore

Systems Division

DSpace Systems Training

UP Faculty Community

Introduction and basic understanding of DSpace. Training will be conducted by Information Specialists

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4. PROJECT PHASES AND DELIVERABLES

The tasks and deliverables for each phase are listed in the following tables:

1. Needs Analysis	Deliverable
Attend kick off meetings	None
Needs Analysis Resource Analysis Conduct structural requirements assessment • Approach • Schedule • Strategies • Logistical and resource requirements	Needs Analysis Report
Sign-off	

2. Design	Deliverable
Structural design of institutional repository: • Top-level Communities • Sub-Communities • Collections Description for each Community/Collection	Design Blueprint
Workflow within each Collection	Workflow Document for each Collection
Interface design	DSpace Interface
General policies and procedures, and Community specific policies and procedures	General Policy Documents and specific policies for each Community within four focus areas
Training material	Training Document
Metadata standards	Metadata Standards Document
Digitization standards	Digitizing Standards Document
Submission standards	Submission Standards Document
Sign-of	

3. Development	Deliverable
DSpace Web Page with Help & FAQ	Web page
Installation/Configuration of software	UPSpace
Incorporate specifications set in documents compiled during Design	UPSpace
Registering e-persons & administrators	UPSpace
Sign-off	

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4. Implementation	Deliverable
Conduct Marketing	E-newsletter, Faculty mailing lists, brochure, web pages, etc
Library Orientation (demo)	Presentation
Faculty Orientation	Presentation per Faculty
Training	Training Schedule
Sign-off	

5. Evaluation	Deliverable
Review	Summative evaluation report
Summarise and review lessons learned from the project Planning for long-term server, storage and network requirements	Workflow Document for each Collection
Sign-of	

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5. Project Timeline

Total estimation of days:

Milestone	Tasks	Reporting	Days
1 - Analysis			
1.1	Analysis and design stage	None	5
1.2	Architecture design	Specification Document	5
2 – Frontend Installation			
2.3	OS, Node, Angular, etc. Installation	None	15
2.4	Server Setup	None	5
2.5	Frontend Installation	None	7
3 - Backend Installation			
3.1	Required Software Installation (JDK, Apache, PostgreSQL, Git etc)	None	8
3.3	Backend Installation	None	5
3.4	Finalize documentation	None	3
4 – Setting Up			
4.1	DSpace Configuration / DB Connections	None	5
5 – Account Creation			
5.1	Creating Accounts for Administrative users	Client meeting	3

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6. PROJECT STANDARDS

6.1 METADATA STANDARDS

DublinCore open source metadata software has been identified as the metadata standard for the digital repository, and will be customized according to the needs of the various focus areas (Metadata Workgroup, 2004). The DSpace platform metadata fields will also have to be adapted according to the requirements set in the Metadata Standards document. The necessary changes will be introduced to UPSpace once the necessary resources become available (e.g. Java Skills).

6.2 DIGITISATION STANDARDS

Digitisation Standards have been identified by the Digitisation Workgroup and will have to be adapted according to the needs of the various focus areas within DSpace.

6.2 SUBMISSION STANDARDS

General standards for submitting digital objects to UPSpace will be established by the UPSpace Workgroup and Management Team. It will be the responsibility of each focus area to establish their own policies, procedures, and submission standards with support from the UPSpace Workgroup.

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7. Project Cost

Find below the cost of DSpace Installation. This costing covers one-year support.

Milestone	Tasks	Cost (₦)
1.1	DSpace Installation and Setup - OS Installation - Server Configuration - DSpace Installation - DSpace Setup - Account Creation - Support	500,000
	DublinCore - Installation - Configuration - Linking - Setup	500,000
	Training - Staff Training - Administrative Training - Digitization Training	300,000
Total: ₦ 1,300,000		

8. Payment Terms

JAMTECH Technologies expects a 60% upfront payment and a final payment of 40% on completion of the project.

9. Conclusion

We have in this proposal discussed the features of the DSpace, the timeline for development, as well as the cost of Installation. For inquiries, please reach out to the contact person on the second page of this document.

Please see the attached screenshots of the proposed DSpace. Thank you.

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