

Beginning an African Online Digital Library - www.aodl.org

NSF DLI PI meeting
Washington, DC
December 2, 2003

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African Online Digital Library

<http://www.aodl.org>

African Online Digital Library - AODL

http://aodl.org/

African Online Digital Library
"Building Digital Libraries in an African Context"

Galleries Research Institutions Best Practices Search Home

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About AODL

New and Featured


The Passport to Paradise gallery highlights the bold, visual images found all over Dakar by focusing upon the urban visual culture of the Mourides, a Senegalese Sufi movement centered upon the life and teachings of a local saint named Sheikh Amadou Bamba.

Read our recently published guides to best practices in digitizing text and multimedia resources. Download them today from our "Best Practices" site.

Highlights from the Collection

Phil Curtin

Preview the upcoming gallery of images from years of fieldwork from Dr. Phil Curtin's personal collection. He also agreed to sit for an interview about this collection, and that interview will shortly be part of the collection.



Building Digital Libraries in an African Context

Representing Pulaar Digitally

Many African languages are seriously under-represented both on the World Wide Web and in digital libraries. To help preserve and disseminate these languages, we need to find ways to digitize and deliver linguistic content on the World Wide Web.

Galleries

- [Sampling from L'Institut Fondamental d'Afrique Noire \(IFAN\)](#)
- [Phil Curtin Collection](#)
- [Collection Boubacar Barry](#)
- [Collection Charles Becker: Recherches et documents sur le Sida](#)
- [Photographs from "Passport to Paradise": Sufi Arts of Senegal and Beyond](#)
- [Mosques of Bondoukou](#)
- [Futa Toro, Senegal and Mauritania](#)
- [Build Your Own Gallery](#)

Document: Done

NSF International Digital Library Project:

- “Building a Multi-Lingual Digital Library for West African Sources”
- Michigan State University
- University Cheikh Anta Diop

Dual Challenge:

1. Developing digital library capacity within Africa
2. Bringing African Studies content online

The Need for Digital Libraries in Africa

- Vast inequalities of the print world
- Education as an engine for democracy and development
- The potential of the digital revolution

IT Development Efforts

- The Leland Initiative
- DOT-COM
- Policy, Pipes, and People
- The Importance of Building Internal Capacity

Content Issues: Is the Internet an American Conspiracy?

- Bringing African languages on line
- Repatriation
- The advancement of science: Building and supporting a global research community

Infrastructure and Capacity in Senegal

- UCAD computing
 - fiber-optic/microwave fast campus network
 - Skilled faculty management at the top
- IFAN culture
 - No experience with computers
 - Unskilled, no equipment
 - Francophone university culture

A Multifaceted Approach

- Building partnership with IT leadership
- Equipment and training for IFAN
- Working with African language materials: Pulaar
- Developing a distributive system

The Pulaar project

- Unicode mapping
- Open source software
- Partnering with Pulaar language publisher
- Smil presentations

MATRIX Digital Repository - Assumptions

- Must design interoperable, distributive systems
 - Modular construction
 - Internet based
 - Division of Labor
 - MATRIX – technical expertise/infrastructure
 - Partners – content based expertise
- Minimize Overhead
 - Technical expertise
 - Re-use ingestion and dissemination/Presentation Layer
- Design for multimedia and internet delivery from the outset
- Need to plan for long-term preservation and access
- Use and develop national best practices

First Iteration

MATRIX Digital Repository:

- Central Problems
 - partners from multiple disciplines coming into project with pre-defined metadata
 - describing diverse objects --- audio recordings to colonial photographs
 - metadata scheme robust enough to handle all levels of metadata for any digital object as well as provide flexibility for project specific metadata

Flexible Design:

- Metadata Encoding and Transmission Standard (METS)
 - Standardized by extremely flexible schema for incorporating different metadata into a single document
 - “Bucket” approach to structural, descriptive, and administrative metadata
 - Describes the metadata in the bucket
 - Designed to encompass full range of repository needs
 - Positioned to be a tool for exchange of metadata and digital objects

African Online Digital Library

- Current implementation called REPOS(itory)
- Repos is a database driven application for ingesting, administering, and delivering multimedia materials and their corresponding metadata.
 - Flexible, single database solution - allows the application of any metadata scheme/elements without altering table structure
 - two tables at the heart of repos
 - table 1 – metadata catalog
 - describes the metadata element used by projects
 - project, group, name, nature, modifiers, sequence
 - functions almost like a schema
 - table 2 – metadata
 - holds the actual metadata
 - project, element name, data, modifier, sequence
 - 1 piece of metadata per row

Architecture:

- Open source software:
 - Linux – debian
 - Also have it running on windows and mac os x
 - Set-up in minutes – minor php.ini adjustments
 - Apache
 - Mysql/Php
- Hardware:
 - Disk Farm - 1 terabyte of spinning disk/tape backup
 - Process specific machines
 - Web
 - Database
 - Streaming Media (Real Server)

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- Single, stable database design facilitates:
 - Dynamic project building -- creates new collections/archives in a matter of minutes
 - Online
 - Unified tool
 - Facilitates training and documentation
 - Cross project development of search/delivery applications
 - Repos tools
 - Facilitates searching across projects and cross-collection complex objects
 - Distributed development of projects, yet unified presentation
 - [African Online Digital Library](#)

Modularity for Flexible Delivery:

- Alternative delivery formats
 - Archival: Search, browse, sort
 - Galleries: Content based-groupings
 - Exhibits: Structured presentations
 - Educational classrooms
 - [Complex digital objects](#)
- Diverse interfaces for diverse audiences
- Perception studies

Challenges and Limitations

- Culture gulf
- Resource inequalities
- Divergent timeframes and expectations

AODL Plans

- Modular repository works: New galleries coming on line
- Need to address time disjuncture: African partners are just now ready to fully participate
- More African language content
- African language searching/navigation tools
- A distributive repository to facilitate access in Africa

An Agenda for the Future of African Digital Libraries

- International partnerships: US/Europe/Africa
- Two-way content flow
- Continued African capacitation
- Compensating for bandwidth limitations