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KORA: A Digital Repository and Publishing Platform

Poster

Interactive Posters.7 KORA: A Digital Repository and Publishing Platform

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Abstract

MATRIX has developed an open source application that cultural and educational institutions can use to preserve digital materials and display them online. The application, KORA (http://kora.matrix.msu.edu), is particularly well-suited for working with digital objects of all media types and for easily creating displays of these objects in multiple ways that enhance their educational and research value. MATRIX, a humanities computing research center at Michigan State University, has built and enhanced this application in the course of seven years of research with support from the National Science Foundation.

Designed for long-term preservation and access, KORA includes unique features that meet two important needs of institutions that have limited technological resources: (1) simple design of the digital repository and the ingesting of data, and (2) the ability to display digital materials online in diverse ways, such as image galleries, multimedia educational activities, or story chapters.

The KORA architecture is unique in that it can accommodate any set of metadata schemes (or tables) in individualized digital libraries. Users can easily create metadata elements (database fields) using a simple point-and-click interface, select the type of form control for each element (e.g., required formats for date, URL, file upload, etc.), and then determine whether the element is required for each record, whether it should appear in search returns, and other features. KORA then automatically generates storage structures, ingestion (data entry) forms, and validation requirements for each metadata scheme.

Because the back-end of projects can be created in minutes by people without technical training, the overhead for getting projects started is reduced immeasurably compared to beginning with a blank SQL or

other database. And because KORA is an online application, multiple users can develop a collection from separate locations at the same time. Also, KORA can ingest materials from any standardized repository and can output XML that can be harvested by these repositories.

KORA also includes an easy-to-use "associator" tool for creating relationships that combine objects of various media types. As demonstrated by diverse websites built with KORA, many creative displays are possible using this open source application.

In keeping with the need to ensure authenticity and integrity of files ingested into KORA, as described in the International Research on Permanent Authentic Records in Electronic Systems (InterPARES) guidelines, automatic fixity checking has been built into KORA to verify that data has been kept free of tampering and corruption. Long-term access to digital material can be assured by storing this preservation information in the digital repository, as described by the ISO Reference Model for an Open Archival Information System (OAIS) model and Preservation Metadata: Implementation Strategies (PREMIS).

New Release: KORA 3.0

KORA 3.0 will be released this spring with a host of new features, including many major changes:

- all new user experience design;
- independence from MYSQL so it can be used with other database management systems;
- enhanced Multilanguage capabilities;
- rebuilt on Symphony, KORA will have enhanced plugin capabilities;
- and many more features.

Originally presented by Rebecca Tegtmeyer, Dean Rehberger, Catherine Foley, and Ethan Watrall at DH2013 on July 17, 2013.