

Managing Shared Digital Research Data in Federated Storage Clouds for Higher Education

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Abstract: TIP (TUCASI data-Infrastructure Project) is a pilot project investigating cyberinfrastructure to manage and share digital research data in one of the first federated storage clouds in higher education. The initiative, funded by the Triangle Universities Center for Advanced Studies Inc. (TUCASI), enables faculty and students from Duke, UNC-Chapel Hill and N.C. State universities to access, share and store data across institutions. The project runs from July 2009 through June 2011.

The project is led by a consortium of Libraries and Campus IT from the various universities, and brings together librarians, archivists, and technologists. This talk will discuss the TIP platform-independent system, the types of datasets used (from library, archives, classroom lectures, scientific data, spatial data, and others), metadata, integrated search mechanisms, and demonstrates the increasing need for integrated frameworks that can handle research data.

Institutional policies and business rules are being developed to specify and automate when feasible the various data management regimes required between the partner institutions.

This presentation will summarize project findings, discuss next steps and encourage a broader discussion on emerging mandates, research initiatives, and collaboratives.

About the author:

Richard Marciano is a professor in the School of Information and Library Science at UNC, Chapel Hill and Director of the Sustainable Archives and Leveraging Technologies (SALT) lab. He leads development of preservation environments for projects funded by NARA, NHPRC, IMLS, NSF, DHS, and the foundations. He is the principal investigator for the NHPRC-funded Distributed Custodial Archival Preservation Environments (DCAPE) initiative, and the NARA/NSF CI-BER project (CyberInfrastructure for Billions of Electronic Records). Dr. Marciano has been working with government records and technology for over a decade. Experience covers eGovernment, environmental data and policies, planning environments, regional, state, and federal records. He holds degrees in Avionics and Electrical Engineering, M.S. and Ph.D. in Computer Science from the University of Iowa, and worked as a Postdoc in Computational Geography.