An Educational Program on Data Curation
Graduate School of Library and Information Science
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Abstract
Several models of service are emerging in academic and research libraries for the collection and management of scientific data—an important segment of an institution’s total scholarly production. As libraries work to develop services to support the management of locally-generated data, they will require new kinds of expertise for providing appraisal, management, and access to data for long-term use. Data curation is the active and ongoing management of data through its lifecycle of interest and usefulness to scholarship, science, and education; curation activities enable data discovery and retrieval, maintain quality, add value, and provide for re-use over time. At the Graduate School of Library and Information Science (GSLIS) at the University of Illinois at Urbana-Champaign our data curation curriculum will provide students with the theory and skills to plan and manage data curation systems, create and maintain data collections, and to evaluate and apply data and metadata standards for varied uses across the sciences, humanities, and social sciences.

Program Summary
The Data Curation Education Program (DCEP) is designed as a concentration within the ALA-accredited Master of Science (M.S.) degree at the Graduate School of Library and Information Science at the University of Illinois at Urbana-Champaign. The M.S. requires a total of 40 credit hours of course work that includes required core courses. In addition to the courses required for all master’s students, those in the data curation concentration have two additional required core courses: Foundations of Data Curation and Digital Preservation. Courses recommended as electives include: Biodiversity and Ecoinformatics; Metadata in Theory and Practice; Museum Informatics; Ontologies (Humanities or Natural Sciences); Design of Digitally Mediated Information Services.

A major component of the DCEP will be participation in a practicum or internship related to the management, maintenance and preservation of data. We are developing a range of field experience sites in information-oriented institutions, including museums, data centers, libraries and institutional repositories, archives, and private industry.

“...creative partnerships between librarians and scientists will be critical for professional data stewardship in future science and engineering efforts.”
ARL (2006)

Anticipated Outcomes
- Identify best practices
- Create new courses and educational materials
- Develop a pool of field experience sites
- Cultivate new collaborative research partners
- Distribute curriculum materials via IDEALS, the UIUC institutional repository (e.g. syllabi and case studies)

Advisory Committee Contributions:
- Identify information problems and collect best practices from our partners to provide a broad understanding of information and data techniques, issues, and needs
- Facilitate field placement opportunities
- Develop case studies for use across the curriculum
- Cultivate new partners and new collaborative research

Cooperating Institutions
- Biomedical Informatics Research Network (UCSD)
- Marine Biological Laboratory
- Smithsonian Institution
- American Museum of Natural History
- Missouri Botanical Garden
- U.S. Army Strategic Environmental Management Program (SEMP)
- MIT Library

Future Events
- Summer Institute in Data Curation June 2-6, 2008 - workshop for academic and research librarians
- International conference on the Practice, Problems and Promise of Data Curation in 2010, in collaboration with the UK Digital Curation Centre.