UNC
SCHOOL OF INFORMATION
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Defining What Digital Curators Do and What they Need to Know: The DigCCurr Project

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Project Basics

- Preserving Access to Our Digital Future: Building an International Digital Curation Curriculum. http://www.ils.unc.edu/digccurr.
- This project is funded through IMLS Grant # RE-05-06-0044.
- A collaboration of the School of Information and Library Science (SILS) at the University of North Carolina at Chapel Hill (UNC-CH) and the U.S. National Archives and Records Administration (NARA).
- Project to run July 1, 2006 – June 30, 2009.

DigCCurr Goals: Curriculum

Develop

- a graduate-level curricular framework,
- course modules, and
- experiential components

to prepare students for digital curation in a wide variety of organizations and with an ever-increasing and changing corpus of digital materials and data formats.

DigCCurr Goals: Carolina Digital Curation Fellows

- Cohort of Digital Curation Fellows will pursue degrees at SILS beginning in fall 2007.
- Repositories at UNC will provide practical experience opportunities for the Fellows. These include: Academic Affairs Library, Odum Institute, ibiblio, and ITS.

DigCCurr Goals: Conferences

- International symposia in 2007 and late 2008 or early 2009 to bring the issues of digital curation and this curriculum to the attention of librarians, archivists, museum professionals, data curators, scholars, and the general public.

DigCCurr2007

- April 18 – 20, 2007, Chapel Hill, NC
  http://ils.unc.edu/digccurr2007/program.html
- Close to 300 participants
- Over 100 presenters
- Participants from 10 countries
- All IMLS Digital Curation Education projects represented
- Major European projects represented: DCC, Caspar, Planets, DPE

DigCCurr2007

- Overarching theme: “What do digital curators do and what do they need to know.”
  - What is Digital Curation?
  - Identifying Digital Curation Services and Functional Requirements
  - Mechanisms for Influencing Data Curation Practices
  - Views from National Libraries and Archives
  - Building Capabilities for Digital Curation
  - Repositories
    Digital Curation in Practice
  - What have We Been Learning from You?

DigCCurr Staff

- Helen Tibbo, Professor, SILS
- Christopher Lee, Assistant Professor, SILS
- John Schaefer, Project Manager, SILS Ph.D. student, 2006-2007
- Carolyn Hank, Project Manager, SILS Ph.D. student, 2007-2009
- Lots of SILS student volunteers who made DigCCurr2007 happen!

International Advisory Board

- 17-member Advisory Board is informing and guiding our efforts:
  - Adrian Cunningham**, National Archives of Australia**
  - Robin Dale**, OCLC/RLG**
  - Raymond J. van Diessen**, IBM Business Consulting Services, The Netherlands**
  - Wendy Duff**, University of Toronto, Faculty of Information Studies**
  - Philip Eppard**, Department of Information Studies, University at Albany, SUNY**

Advisory Board

- Anne Gilliland, **Department of Information Studies, Graduate School of Education & Information Studies, University of California, Los Angeles**
- Maria Guercio, **ISTBAL, Universita degli Studi di Urbino (University of Urbino)**
- Hans Hofman, **Nationaal Archief (National Archives) of the Netherlands**
- Anne Kenney, **Cornell University Library**
- Steve Knight, **National Library of New Zealand**
- Clifford Lynch, **Coalition for Networked Information (CNI)**

Advisory Board

- Richard Marciano**, San Diego Supercomputer Center, UC San Diego**
- Seamus Ross**, Humanities Advanced Technology and Information Institute (HATII) at the University of Glasgow**
- Don Sawyer**, National Space Science Data Center**
- Kenneth Thibodeau**, National Archives and Records Administration (NARA). NARA is a project partner.**
- Elizabeth Yakel**, School of Information, University of Michigan**

Starting Points: 1

- Long-term access to and use of meaningful, reliable, and authentic electronic records and digital objects is essential to the future of science, commerce, government, education, and cultural heritage.

Starting Points: 2

- Software and hardware obsolescence, media fragility, benign neglect, the expense of metadata creation, and intellectual property rights place many of these materials at risk.

Starting Points: 3

- Facilitation of on-going access will require concerted, appropriate digital curation efforts.

Digital Curation

- A decade of work in digital preservation and access has resulted in an emerging and complex life-cycle constellation of strategies, technological approaches, and activities now termed “digital curation.”

Digital Curation

- While still an evolving concept, “digital curation” can be defined as “the active management and preservation of digital resources over the life-cycle of scholarly and scientific interest, and over time for current and future generations of users.”
  - JISC, Circular (June 2003);
  - DCC. Digital Curation Centre. “What is Curation?” http://www.dcc.ac.uk/about/what/.

Few Educational Opportunities

- To date, most education and training opportunities focusing on digital preservation and, more recently, curation, have taken the form of one- to five-day workshops.

Graduate Level Digital Curation Programs

- These are just now appearing, including programs at
  - Humanities Advanced Technology and Information Institute (HATII). University of Glasgow. MSc in Management and Preservation. http://www.hatii.arts.gla.ac.uk/imp/index.htm.
  - University of Illinois at Urbana-Champaign, Graduate School of Library and Information Science (GSLIS), Master of Science--Concentration in Data Curation, with fellowships funded by the Institute of Museum and Library Services. http://www.lis.uiuc.edu/programs/ms/data_curation.html

Other Graduate Level Materials

- Several programs offer relevant course work.
  - Most LIS programs with concentration in archives
  - Relevant but not fully articulated programs.

Matrix of Digital Curation Knowledge and Competencies

- 6-dimensional matrix for identifying and organizing the material to be covered in a digital curation curriculum. Each unit of curriculum content will address one or more dimensions. The six dimensions are:

Matrix Dimension 1

- 1. Type of Resource
  - Level of Aggregation
  - Level of Abstraction
  - Medium
  - Format
  - Genre

Matrix Dimension 2

- Functions and Skills
  - List given below.

Matrix Dimension 3

- Professional, Disciplinary or Institutional/Organizational Context
  - Professional Context
  - Disciplinary Context
  - Institutional/Organizational Context

Matrix Dimension 4

- Mandates, Values, and Principles
  - Ethics
  - Legal Requirements
  - Standards
  - Interoperability and Sustainability Requirements

Matrix Dimension 5

- Prerequisite Knowledge
  - Terminology
  - Characteristics of Technologies

Matrix Dimension 6

- Lifecycle Stage
  - Pre-Creation Design and Planning
  - Creation
  - Primary Use Environment (Active Use)
  - Transfer to Archives
  - Archives (Preservation Environment)
  - Transfer Copies or Surrogates to Secondary Use Environment
  - Secondary Use Environment

Guiding Principles

- Build on an installed base.
- Digital curation activities span the entire lifecycle of digital resources.
- Keep lifecycle stages simple, and move complexity into the functions.
- Build from modules, rather than entire courses.
- Emphasize core, generalizable modules.

Taxonomy of Digital Curation Functions and Skills

- First Level Functions and Skills
  - Access
  - Administration
  - Advocacy and Outreach
  - Analysis and Characterization of Digital Objects/Packages
  - Analysis and Evaluation of Producer Information Environments
  - Archival Storage
  - Collaboration, Coordination and Contracting with External Actors

Taxonomy of Digital Curation Functions and Skills

- Common Services
- Data Management
- Description, Organization and Intellectual Control
- Destruction and Removal
- Identifying, Locating and Harvest
- Ingest
- Management
- Preservation Planning and Implementation
- Production

Taxonomy of Digital Curation Functions and Skills

- Purchasing and Licensing of Content
- Reference and User Support Services
- Removal from Archive
- Selection, Appraisal, and Disposition
- Systems Engineering and Development
- Transfer
- Transformation of Digital Objects/Packages
- Use, Reuse, and Adding Value by User
- Validation and Quality Control of Digital Objects/Packages

Meta-Level Functions and Skills

- Analysis and Documentation of Curation Functions
- Evaluation and Audit of Curation Functions
- Research and Development to Support Curation Functions

Next Steps

- Revise framework based on discussions with Advisory Board.
- Fill in matrix with content.
- Explore how to package materials.
- Propose modules and classes – top down and fill with identified content – bottom up.
- Design field experiences.
- Evaluate and reiterate.

Thank you for your time and attention!

http://ils.unc.edu/digccurr