Enabling Professionals for Digital Curation and Digital Archiving: DAS and DigCCurr

Christopher (Cal) Lee and Helen Tibbo, University of North Carolina

Digital Curation Education Projects at the University of North Carolina at Chapel Hill

The School of Information and Library Science at the University of North Carolina, Chapel Hill (UNC SILS) is engaged with digital curation education at the master's, doctoral, and professional levels.

- **The DigCCurr (Digital Curation Curriculum)** and **DigCCurr II** projects have developed conceptual frameworks, educational offerings, professional field experiences, and research opportunities to prepare digital curation professionals. DigCCurr I focused on developing a curriculum and practicum experiences for master's students, while DigCCurr II is supporting doctoral and professional education, including summer institutes for continuing education of professionals.
- **Educating Stewards of Public Information in the 21st Century (ESOPI-21)** and **Educating Stewards of the Public Information Infrastructure (ESOPI[2])** are collaborations between SILS and the UNC School of Government, preparing professionals to navigate the intersection between digital curation, public policy, and public administration.
- **Closing the Digital Curation Gap (CDCG)** is a collaboration between SILS, IMLS, and Joint Information Systems Committee (UK) to serve as a locus of interaction between leading-edge digital curation research, development, teaching, and training in academic and practitioner communities in libraries, archives, and museums, addressing the issue of professional diffusion of innovations.

Matrix of Topics for a Digital Curation Curriculum

As a cornerstone of the DigCCurr work, we have developed a 6-dimensional matrix for identifying and organizing the material to be covered in a digital curation curriculum. A given curriculum unit can focus on a dimension in general or specifically as it intersects with one or more other dimensions. The Matrix is a tool for thinking about, planning for, identifying, and organizing the digital curation curriculum. It is also helping us to address the issue of core vs. specialized (optional) educational elements.

Dimension	Explanation or Elaboration
1. Mandates, Values and Principles	Core reasons why the digital curation functions and skills should be carried out and should serve as the basis for criteria to evaluate whether the digital curation activities have been carried out responsibly and appropriately
2. Functions and Skills	"Know how," as opposed to the conceptual, attitudinal or declarative knowledge
3. Professional, Disciplinary, Institutional, Organizational, or Cultural Context	Understanding of challenges, opportunities and characteristics of particular disciplines or institutions (e.g. social science data archive in a university, commercial data warehouse, state archives, serving a population with specific cultural norms)
4. Type of Resource	Types of resources that are the target of digital curation activities
5. Instrumental Knowledge	Elements of knowledge that are instrumental to understanding and applying other aspects of the curriculum, including specialized terminology and characteristics of technologies
6. Transition Points in Information Continuum	Points of transition that span from pre-creation design and planning to secondary use environments

Digital Archives Specialist Curriculum

In 2010, the Society of American Archivists (SAA) formed the Digital Archives Continuing Education (DACE) Task Force to develop "a detailed professional development curriculum on the subject of digital archives." The Task Force used the DigCCurr Matrix to shape the resulting Digital Archives Specialist (DAS) ccurriculum.

The curriculum and the associated Digital Archiving Specialist certificate were created in response to one of the issues identified in SAA's strategic plan: "Rapidly changing information technologies challenge archival principles, practices, and communication protocols, demanding effective leadership from the archives community to access, capture, and preserve records in all formats."

Upon completion of the curriculum, students will be able to:

- Understand the nature of records in electronic form, including the function of various storage media, nature of system dependence and the effect on integrity of records over time
- Communicate and define requirements, roles, and responsibilities related to digital archives to a variety of partners and audiences
- Formulate tactics and strategies for the appraisal, description, management, organization, and preservation of digital archives
- Integrate technologies, tools, software, and media within existing functions for the appraisal, capture, preservation and access to digital collections
- Plan for the integration of new tools or successive generations of emerging technologies, software, and media
- Curate, store, and retrieve original masters and access copies of digital archives
- Provide dependable organization and service to designated communities across networks

The DAS curriculum involves four tiers of study:

DAS Tier of Study	Focus
Foundational	"Essential skills that archivists will need to manage digital archives. These focus primarily, but not exclusively, on the needs of practitioners."
Tactical and strategic	"Skills archivists need to make significant changes in their organizations so that they can develop a digital archives and work seriously on managing electronic records. These focus primarily, but not exclusively, on the needs of managers."
Tools and services	"Specific tools and services that archivists need to use for their work with digital archives. These are practical courses focused on specific software products and other tools. These courses focus primarily, but not exclusively, on the needs of practitioner archivists."
Transformational	"Skills archivists need to change their working life dramatically and transform their institutions into full-fledged digital archives. These courses focus primarily, but not exclusively, on the needs of administrators."

Conclusion

Professional education is a process that is never completed. The DACE recommendations and curricular framework move the digital archivist into the digital curation space. What evolves will be tested in the repository workplace from archives to libraries to corporate data centers. All of this will test the principles, structure, and robustness of the DigCCurr Matrix and provide feedback for future development of graduate and professional archival and digital curation education.