AERI 2010

Challenges/Problems in Use, Re-Use, and Sharing

Abstracts:

Akmon, Dharma & Daniels, Morgan. Data Practices in a Materials Science Lab
Scientific data, like other kinds of records, are by-products of work that can function as evidence to validate findings and make claims. An important way in which archives ensure that records can serve as evidence is by documenting the link between the records and their context of creation. Science also depends on the connection that scientists can make between data and the circumstances under which the data were collected. This has traditionally been accomplished through journal articles.

As science becomes more data intensive and means of easily sharing data become more accessible, there is increasing emphasis on building shared repositories of scientific data. And yet, it can be difficult to provide an appropriate level of contextual information for the data in such repositories. In this paper, based on a case study of a Materials Science lab group in a major research university, we examine how the daily data practices of scientists might be an aid or impediment to others using their data as evidence in their own studies.

Cumer, Brian. Archaeology and Digital Archives.
This presentation examines the evolution of digital archives in archaeology. As archaeologists continue to utilize new methods for gathering data (e.g. GPS, remote sensing, 3D laser scanning) the nature of the archival record for these researchers is changing. Where archival records in the past were largely considered by archaeologists as proprietary, emerging collaborative research methodologies are challenging this notion. Web-based collaborative research projects and developing archaeological cyberinfrastructures require the sharing of raw data, field notes, journals, maps and other records. This poses new challenges for researchers and archivists, including the issues of records standardization, records ownership and accessibility, and metadata and database standards. Using archaeological fieldwork as a lens, the presentation will address the following questions: 1) What is the role of archivists and information professionals in the emerging world of Web-based collaborative scholarship, as researchers are struggling to bridge the gap between the analog and digital records? 2) What are the barriers to increasing collaboration among researchers and how do archival records play a role in determining the success of such projects? 3) How will e-research continue to shape the nature of archival records?

Ovalle, Carlos. Copyright Challenges with Public Access to Digital Materials in Cultural Institutions
Archivists face a number of challenges related to providing public access to digital materials. Digital works may comprise part or all of a given collection. Archivists may seek to digitize material for preservation or for public dissemination. Archivists must make many decisions based on institutional policy, copyright law, donor agreements, and other factors. I discuss my experiences with legal and policy concerns in archives and other cultural institutions, including my work with the American Library Association's Copyright Scholar Network. I also discuss potential research methodologies involved in examining copyright issues in archives, including some ethnography-based methods I am currently examining.

Ramdeen, Sarah. A proposed study of natural scientists in their natural habitats: Information behavior and workflow habits of natural scientists
In this presentation I will lay out a proposed study and research direction. The study will look at how scientists create and share information, in particular when dealing with digital materials and information technology. In this study, scientists are defined as researchers working in the field of natural science. My research will address the following questions: 1) How does managing digital information affect the everyday workflow of scientists? 2) When completing a project, how do scientists consider the reuse of the materials and artifacts from the project? 3) What problems do scientists encounter when sharing and reusing data and materials from their own past projects? These questions involve issues beyond the typical concerns of creating and maintaining metadata and will also encompass file formats, appraisal and archival habits, and collaborative information seeking behavior. It will also involve how all of these points are affected by the integration of information tools and technology. Other research areas I may cover during this study include information behavior, specifically motivation in relation to information technology. This research will test the assumption that many scientific institutions rely in some part on legacy technology. Researching this topic will determine to what extent this belief holds true. Research in this study would address the behaviors which tie these scientists to dated technology and investigate what prevents them from moving on to modern systems.

Chair: Kathleen Fear, University of Michigan

Bios:

Kathleen Fear
I am a first-year doctoral student at the University of Michigan's School of Information. My research focuses on the preservation of scientific and medical research data, especially radiological images. My interest in the preservation of these objects encompasses both technical and social or policy issues that influence data management practice. In my continuing research, I would like to further explore the relationship between users and preservation, both in the sense of how users can influence what to preserve and how, as well as how the
ways in which preserved information should be presented to users so that it is usable and accessible and thus worth continuing to preserve.

Currently, I am a fellow in the IGERT Open Data program and a HASTAC Scholar, sponsored by Michigan's Scholarly Publishing Office. Along with ICPSR (the Inter-University Center for Political and Social Research), I am conducting a study to assess current data management practices and perceived needs for training and support among researchers at U-M. This research involves a large survey of U-M researchers (completed), along with 20-30 in-depth interviews with individuals who responded to the survey, and will result in a set of recommendations to the Provost and Office of the Vice President for Research on how the University can better support researchers in managing their data. I am also involved in projects examining knowledge management practices in hospitals and the effectiveness of drug-drug interaction alerts in a computerized prescription order entry system among different user groups.

In 2006, I received a Bachelor of Science degree in Physics from Yale University, and completed my Master’s in Information from Michigan in April 2009.

Dharma Akmon
My background in history is what initially drew me to the field of archival studies, but the challenges and opportunities of the digital era and its associated reorganization of work and social interaction are what compelled me to pursue an academic and research career in this area. Working as a professional in archives, the issues with digital materials can seem insurmountable. As a researcher, the same complex issues are what excite and inspire me.

My most recent research has been in two primary directions: copyright in digital archives; and scientific data practices. My research in copyright in digital archives has looked at what it costs to attempt to obtain copyright from rights holders to display their materials online and what kind of response they tend to give. The findings from this study have important implications for what approach archives should take in putting copyright materials online.

As an OpenData IGERT fellow I am becoming increasingly interested in scientific data sharing and reuse. I am particularly interested the practices of scientists in managing their own data and how this facilitates or inhibits reuses.

Morgan Daniels
I am a third year doctoral student at the University of Michigan’s School of Information. My research has encompassed a number of aspects of archival studies, including the impact of college and university archives on student users and the development of tools for user-based assessment of archives (both with the Archival Metrics project). Currently however, my research interest is the use of scientific data, both by their original creators and by secondary users, for purposes other than those for which they were originally collected. My work in this area explores the challenges to scientific data reuse, which my colleagues and I investigate primarily through qualitative research using interviews and observations of scientists. The work I will be presenting at AERI stems from a study of the data management and sharing practices among members of a small academic laboratory, particularly focusing on questions of credibility and trust in the secondary use of scientific data.

The broader theme of my work is the flow and reuse of information within particular communities. To this end, I am also working on a project with several colleagues to understand the function of hashtags for political action on the social networking site Twitter. We are working on a case study of the #amazonfail phenomenon of April 2009, during which a number of discussions on Twitter of the de-listing of books on gay and lesbian themes on Amazon.com helped draw wide attention to the event. This was one of the first instances of a hashtag on Twitter widely adopted for social protest and commentary. We are focusing on the group of Twitter users who first coined and used the hashtag #amazonfail to understand how it was used to both share information on an emerging event and to recruit people to take collective action around the issue.

Brian Cumer
I am a PhD student in the LIS Program at the University of Pittsburgh, School of Information Sciences. My current research interests include archival issues related cultural heritage and how personal documentation and record keeping interface with emerging technologies. Prior attending Pitt, I worked as an archivist throughout the Pittsburgh helping non-profit organizations. I also have a professional background in archeology, and I have participated in field research in Pennsylvania, New York, Indiana, and Israel. I have an M.A. from Pittsburgh Theological Seminary, where I first became interested in archives while working at the James L. Keils Bible Lands Museum. My primary motivation for pursuing a PhD in Library and Information Science is closely tied to my personal passion for teaching. As a Teaching Fellow at Pitt, I have taught courses on archival preservation and archival appraisal, and I this summer I will be teaching a new course I designed on archives and cultural heritage. I am interested in combining my professional experiences in archaeology and museum studies with my current work in archival studies. I consider it part of my mission as an educator to help equip future archivists to better deal with culture and the digital record.

Carlos Ovalle
My main research interest focuses on copyright and the related legal and policy issues involved with the dissemination of digital media, digitized or created digital, to the public, primarily by cultural institutions such as archives, libraries, and museums. I also examine issues related to preserving digital works and the technologies necessary to preserve and access digital works. Recently, I have been examining the recording of tacit knowledge in computer restoration work necessary for archival preservation, and I am currently going through the IRB process at the University of Texas to do research in this area.

For my dissertation, my preliminary plan is to do ethnographic research in an archives in order to examine the issues related to copyright encountered in day-to-day activities. From that examination, I hope to generate an instrument (most likely a survey) to examine those issues at other locations.

I am a doctoral student, lecturer, and member of the IT Staff at the School of Information at UT Austin. In these various roles, I teach undergraduates about technology and culture, assist with technology-related activities (such as the creation of multimedia tutorials and the use of various types of software, including DSpace), and have the opportunity to examine policy issues related to copyright at institutions like the Harry Ransom Humanities Research Center and the Dolph Briscoe Center for American History.

I have an MLIS from the School of Information. I am a member of the Society of American Archivists and the American Library Association. I participate in the American Library Association's Copyright Scholar program, and helped create and maintain the Copyright Advisory Network site at librarycopyright.net. I am currently a member of the board of EFF-Austin, a civil liberties group created with the Electronic Frontier Foundation.
Sarah Ramdeen

Sarah Ramdeen is a second year doctoral student at the School of Information and Library Science at the University of North Carolina at Chapel Hill. She is a Fellow of the DigCCurr II project. Fellow duties include organizing of the DigCCurr II Professional Institutes and Symposiums along with 2 other Fellows. Her research interests include looking at the overlap between Information and Library Science and growing need for management of digital scientific collections, investigating how geologists and other scientists are expected to manage and maintain their digital collections, and the development of educational modules for educating scientists in managing digital collections, modeled on their own workflows. Her previous research includes working on a study of the UNC Library's new Endeca catalog with Dr. Brad Hemminger, titled "Comparison of Library Catalog Searching Interfaces: Text Based Searching with Faceted Browsing versus Metadata Based Searching". She also recently completed a qualitative study of data preservation practices at State Geological Surveys. Currently she is working on a research project with Dr. Helen Tibbo and Dr. Rob Capra on email habits in the university setting. Ms. Ramdeen holds a BS in Geology and a BA in Humanities from Florida State University (FSU). She also holds an MS in Library and Information Studies with a Certificate in Museum Studies from FSU. In the Fall of 2006 she was an intern in London at the Natural History Museum where she worked in the Micropalaeontology section imaging fossils and conducting research.