

JEWEL H. WARD

Online CV: <https://www.jewelward.com>
Email: jewelw@impactzone.co
Business: <https://www.impactzone.co>

103 Emorywood Drive
Morganton, NC 28655
(919) 265-3755

EDUCATION

The University of North Carolina at Chapel Hill **Chapel Hill, NC**
PhD. in Information and Library Science *2006-2015*

Dissertation: "Machine-level Policy Implementation by Data Managers and Data Scientists, and the Impact on Digital Stewardship: a Mixed-Methods Content Analysis"

Current status: Doctoral Candidate.

Advisor: Dr. Reagan W. Moore (retired).

Committee: TBD (Chair), Dr. Clifford A. Lynch, Dr. Nancy McGovern, and Dr. Robert Capra.

Area of Expertise: Digital Stewardship, Metadata, Digital Data Interoperability and Infrastructure, and Machine-level Policy Implementation.

The University of North Carolina at Chapel Hill **Chapel Hill, NC**
Master of Science in Information Science *2002*

Master's Paper: "A Quantitative Analysis of Dublin Core Metadata Element Set (DCMES) Usage in Data Providers Registered with the Open Archives Initiative (OAI)".

Area of Concentration: Information and Metadata Transfer Systems.

The University of North Carolina at Chapel Hill **Chapel Hill, NC**
A.B. in International Studies and History *1990*

Area of Concentration: American Foreign Policy in Communist Asia.

RESEARCH/ACADEMIC INTERESTS

Machine-level policy implementation, data and metadata transfer, preservation systems and infrastructures, including: networked information, preservation data grids, the OAI-PMH, digital stewardship, the OAIS Reference Model, Trusted Digital Repositories, Content Analysis, markup languages, and, digital libraries and archives.

RESEARCH & PROFESSIONAL EXPERIENCE

Impact Zone Consultancy, LLC **Chapel Hill, NC**

Founder and Consultant

2015 to present

SEO Consultant: Review and analyze a client's website, inbound links, and online presence—this includes social media. Provide a digital and/or online strategy, guidance, and recommendations to small business owners seeking to increase their organic search engine traffic. Implement search engine optimization (SEO) on client websites for the purpose of obtaining higher-ranking positions on search engine results pages (SERPS). Work includes keyword research, on-page SEO, off-page SEO, and technical SEO.

Digital Stewardship Consultant: Provide consulting and (some) implementation related to digital libraries, digital archives, data archives, digital preservation, and digital curation. This includes system design, metadata, and preservation policy implementation. My specialty is the application of preservation policies within machine code. This automates the process and reduces mistakes based on human error.

Founded and manage all aspects of a small consulting business. This includes marketing, sales, consulting, branding, accounting, blogging, social media, etc.

The University of North Carolina at Chapel Hill

Chapel Hill, NC

Research Assistant (Doctoral Candidate)

2006–2014

- School of Information & Library Science (SILS)/Data Intensive Cyber Environments (DICE) (2011–2014): conducted qualitative research as part of the Policies and Standards Community of Practice with the DataNet Federation Consortium (DFC). This research included eliciting policies from DataNet partners, interviewing Hydrologists and Engineers about their work practice, coding the interview transcripts, and analyzing the results.
- DICE (2010–2011): wrote and edited a book on the integrated Rule-Oriented Data System (iRODS) micro-services and managed the process of updating micro-services.
- DICE & H. W. Odum Institute for Research in Social Science (2009–2010): Wrote iRODS rules and workflows for iRODS that conform to ISO MOIMS-RAC standards for the DCAPE project; wrote social science preservation policies, and wrote them as rules to be implemented within iRODS.
- Odum Institute & DICE Group (2007–2009): Worked on the Metadata and Digital Object Bulk Extraction, Ingest and Validation project, part of the NARA Transcontinental Persistent Archive Prototype. Coordinated and researched a project to extract and ingest DDI metadata and digital objects from the Odum Data Archive into iRODS and the iRODS iCAT. Created XSLTs to transfer metadata from the data archive into the iRODS iCAT. Created XSDs to validate metadata ingest into and out of the iCAT. Advised on the OAI-PMH. Analyzed DCMES and DDI metadata

quality and content and tested an implementation of an OAI-PMH DP and SP. Analyzed and reported the results. Researched, analyzed and reported on methods to retain Terms and Conditions and rights restrictions on Social Science data and metadata after ingest into iRODS. Documented iRODS 2.x micro-services in Doxygen.

- SILS, Digital Curation and Trusted Repositories Project (2006-2007): Researched and wrote requirements for an ingest survey for a pilot institutional repository. Interviewed and engaged librarians and faculty. Analyzed results and developed requirements and processes for the ingest of each collection into the institutional repository. Wrote up and presented results of the research and application of the survey instrument.

The University of Southern California

Los Angeles, CA

Program Manager, USC Digital Archive

2004–2006

Coordinated the Program Management, Operational/Technical Management, and Research and Development needs of the USC Digital Archive in collaboration with teaching faculty, division personnel, and external partners in order to facilitate system development. The cross-departmental coordination included: digital imaging, outreach and marketing, research and development, systems development and maintenance, web services and programming, collection development, metadata, and related projects. Other duties involved system enhancements; data analysis/data mining/management reporting; research and development; creating and documenting processes, policies, and procedures; providing training; creating proposals and budgets; and, coordinating the activities and agenda of USC's Digital Library Round Table (DLRT), including inviting speakers. Advised on and facilitated the implementation of an OAI-PMH Data Provider (DP) and Service Provider (SP).

Los Alamos National Laboratory

Los Alamos, NM

Post-master's Graduate Research Assistant

2003–2004

One-year internship in the Research Library. Liaison for internal and external projects to implement two institutional repositories. Provided systems administration of institutional repository software as well as training of and technical support for the repositories' users. Coded and tested information retrieval software for a focused crawler prototype development project.

The University of North Carolina at Chapel Hill

Chapel Hill, NC

Research Assistant (Master's degree)

2001–2002

- SILS (2002): Worked on the 3D Rare Book Digital Library System. Designed, coded, developed content, created graphics, and updated the project website. Conducted the literature review; responsible for the creation and maintenance of project documentation.

- SILS (2001): Worked on the TeraScale Project. Duties included managing CVS, Linux systems administration, troubleshooting, installing programs, administering the server, technical writing, and providing technical support to the project's programmers (i.e., "junior-level" systems administration). Developed and updated the project website; responsible for content creation and maintenance.

RELATED EXPERIENCE

Interpath Communications, Inc.

Research Triangle Park, NC

Analyst

1998–2001

- Analyst, Engineering (2001): analyzed and defined the division's load testing needs. Met with and compared load testing tools offered by vendors; analyzed reports, documented the tools and workflow. Performed customer audit. Analyzed both Engineering and the Network Operations Center's information needs and developed recommendations for both short- and long-term solutions.
- Senior Analyst System Control, Network Operations (2000-2001): technical supervisor; managed crises/events and change management; ensured high priority tickets were worked; and supervised technicians in the network operations center. Successfully managed a project to merge the Engineering division's varying intranet content into a one-point-of-entry digital library.
- Business Analyst, Service Delivery & Management (1999-2000): lead position; point-of-contact between the Product Managers/other internal organizations and Operations Support for product implementation into the Arbor Order Management/Billing Process system. Managed, tracked and resolved any issues that arose. Documented workflow/business process documentation for both systems.
- Reports Analyst, Service Delivery & Management (1998-1999): lead position; provided technical writing and business process flow documentation; created and analyzed various internal and external reports; and posted documents and reports in HTML to the corporate intranet.

Kelly Technical Services @networkMCI

Research Triangle Park, NC

Technical Writer

1997–1998

Contractor at networkMCI. Wrote online user guides and HTML help screens for intranet software applications developed in-house and used by the network engineers to provision the Hyperstream Frame Relay Network. Designed, coded, and maintained the department's (digital library) intranet website, as well as developed the content and created the graphics. Supervised co-op's work on website. Some website systems administration. Trained the support team and trainers on the department's software applications.

Sun Forest Systems, Inc.**Research Triangle Park, NC***Content Developer***1995–1996**

- Content Developer (1995-1996): maintained and updated two company websites. Wrote articles and interviewed customers for profiles. Coded HTML. Involved in the development and design of new sites. Spearheaded negotiations with a Japanese consortium interested in the BuildNet project.
- Administrative Assistant (1995): managed sales lead database; managed and authored content material for company websites; proofread and edited company manuals, tutorials, and marketing material. Supported twelve sales representatives and one manager.

Decision Support Systems, Ltd.**Auckland, NZ***Receptionist/Secretary**1993*

Duties included administrative and graphics support for sales presentations, word processing, invoicing, front line reception, and other duties related to office management.

Grosvernor Holdings, Ltd.**Auckland, NZ***Personal Assistant**1992*

Assisted in the day-to-day running of a small trading company, advertising, and marketing agency. Helped mainstream the computer system. Responsible for assisting in sales and marketing projects. Additional duties involved word processing, invoicing, bill collection, and front line reception.

The University of North Carolina at Chapel Hill**Chapel Hill, NC***Administrative Assistant**1991*

Department of Human Resources, Employee Services: assisted in implementing and publicizing programs available to employees. Duties involved budget management, graphics presentations, word processing, and some general secretarial duties.

CONSULTING CLIENTELE

The Graduate School at the University of North Carolina at Chapel Hill**Chapel Hill, NC***Consultant, Records Digitization Project**2011*

Assessed and selected by hand thousands of paper graduate student records at The Graduate School at the University of North Carolina as part of a project to digitize students' records. Advised on the digitization process itself.

National Humanities Center**Research Triangle Park, NC***Research Assistant, Analysis of U.S. Slave Data**2009–2010, 2016*

Providing statistical assistance in the analysis of U.S. slave data from the Colonial period to 1865 for Dr. Daina R. Berry.

Keio University

Tokyo, Japan

Editor and Reviewer, English language and content

2008–2011

Edited and revised research papers and abstracts for an LIS professor and her research group in Japan, as needed.

Dog Stylists, Inc.

Durham, NC

Website Design, Strategy & Content Development

2009–present

Designed websites, developed content, and maintain website.

Keio University, Kitasato Memorial Medical Library

Tokyo, Japan

Editor, English language and HTML

2005–2006

Corrected and revised 18 pages of content and HTML for the English version of the Shinanomachi Media Center's (SMC's) website.

**Alliance for Innovation in Science and Technology
Innovation (AISTI)**

Santa Fe, NM

Institutional Repository Consultant

2004

Advised members of the Alliance for Innovation in Science and Technology Innovation (AISTI) on the development of each organization's portion of the AISTI Institutional Repository (IR), including content, metadata, processes and systems. Analyzed the current status of the AISTI IR project within each institution, advised on best practices and future steps, and documented it.

TECHNICAL /PROFESSIONAL SKILLS

- Software use has included Microsoft Office (Word, Excel, PowerPoint, and Project), OmniPlan, BaseCamp, NVIVO 10.x, and SPSS v. 13.x.
- Expert on how to organize, manage, curate, and preserve digital data and information.
- Expertise includes social science data methods, data analysis, mark-up languages, content delivery mechanisms, and, digital content development, management, and preservation, e.g., digital stewardship.
- Professional development has included training to use and apply standard project management tools and methods.
- Ability to successfully coordinate projects across different departments or organizations.
- Offer website design, set up, testing, hosting and domain registration.
- Offer social media set up and content development, curation, and management.

- Have knowledge of, and some experience with, branding, user interface design, and user experience design.
- Other skills and knowledge include:
 - Have edited and coded websites with HTML since 1995 using plain text files and HTML editors.
 - Can install, code, design, edit, add content, and manage a variety of wikis, websites, and blog software. Currently most familiar with WordPress 4.x using the Genesis Framework, and Tumblr.
 - Familiar, but not expert, with CSS.
 - Familiar, but not expert, with using and applying XML and XSLTs.
 - Familiar, but not expert, with the Data Document Initiative (DDI) and the Dublin Core Metadata Element Set (DCMES).
 - Familiar with the general workings of data grid software, specifically, iRODS.
 - Familiar with basic wide-area networking via work in data communications and data grids.
 - Early adopter of social media tools such as LinkedIn, Twitter, Facebook, and Google+.
 - Some programming ability, particularly with JAVA and XSLTs.
 - Some knowledge of scripting, mostly with PERL, but some JavaScript.

Book(s)

- Rajasekar, A., Russell, T., Coposky, J., de Torcy, A., Xu, H., Wan, M., Moore, R.W., Schroeder, W., Chen, S., Conway, M., & Ward, J.H. (2015). *The integrated Rule-Oriented Data System (iRODS 4.0) Microservice Workbook*. Chapel Hill, NC: CreateSpace Independent Publishing Platform
- Ward, J.H., Wan, M., Schroeder, W., Rajasekar, A., de Torcy, A., Russell, T., Xu, H., & Moore, R.W. (2011). *The integrated Rule-Oriented Data System (iRODS) Micro-service Workbook*. La Jolla, CA: Data Intensive Cyberinfrastructure Foundation.

REFEREED PAPERS

- Xu, H., Coposky, J., Bedard, D., Ward, J., Russell, T., Rajasekar, A., Moore, R., Keller, B., and, Greer, Z. (2015). A Method for the Systematic Generation of Audit Logs in a Digital Preservation Environment and Its Experimental Implementation In a Production Ready System. Accepted paper to be in *Proceedings of iPres 2015*, Chapel Hill, North Carolina, November 2-6, 2015.

- Xu, H., Ward, Jewel H., Conway, M.C., Rajasekar, A., & Moore, R.W. (2014.) Building an Extensible File System via Policy-based Data Management. In *Proceedings of the 1st Programmable File Systems Workshop (PFSW'14), the 23rd International ACM Symposium on High Performance Parallel and Distributed Computing (HPDC 2014)*, Vancouver, BC, Canada, June 23-27, 2014.
- Ward, J.H., Xu, H., Conway, M.C., Russell, T.G., & de Torcy, A. (2013). Using Metadata to Facilitate Understanding and Certification of Assertions about the Preservation Properties of a Preservation System. In *Proceedings of the 7th International Conference, Metadata and Semantics Research Conference (MTSR) 2013*, Thessaloniki, Greece, November 19-22, 2013.
- Conway, M.C., Ward, J.H., de Torcy, A., Xu, H., Rajasekar, A., & Moore, R.W. (2011). Policy-driven Ingest a Graphical User Interface to iRODS. In *Proceedings of Archiving 2011*, Salt Lake City, Utah, May 16-19, 2011.
- Conway, M.C., Ward, J.H., de Torcy, A., Xu, H., Rajasekar, A., & Moore, R.W. (2010). *Policy-based Preservation Environments: Policy Composition and Enforcement in iRODS*. Paper at the Society of American Archivists (SAA) 4th Annual Research Forum, August 12, 2010, Washington, D.C.
- Ward, J.H., de Torcy, A., Chua, M., & Crabtree, J. (2010). *Automated DDI Metadata Harvesting and Replication for Preservation Purposes within iRODS*. Paper at the 2010 International Association for Social Science Information Service & Technology (IASSIST) Conference, Ithaca, NY, June 1-4, 2010.
- Ward, J.H., de Torcy, A., Chua, M., and Crabtree, J. (2009). Extracting and Ingesting DDI Metadata and Digital Objects from a Data Archive into the iRODS extension of the NARA TPAP using the OAI-PMH. In *Proceedings of the 5th IEEE International Conference on e-Science*, Oxford, UK, December 9-11, 2009.
- Ward, J.H., de Torcy, A., Mantooh, J., Chua, M., and Crabtree, J. (2009). Integrating Metadata into the NARA Transcontinental Persistent Archive Prototype via the OAI-PMH. In *Proceedings of DigCCurr 2009: Digital Curation Practice, Promise and Prospects*, Chapel Hill, NC, April 1-3, 2009.
- Ward, J., and Crabtree, J. (2008). Integrating Metadata into the NARA Transcontinental Persistent Archive Prototype via the OAI-PMH. In *Proceedings of the Eighth ACM/IEEE-CS Joint Conference on Digital Libraries*, Pittsburgh, PA, June 2008, 473.
- Ward, J., Bollen, J., Pearson, J., Chan, S., Chi, H., Chi, M., Guevara, K., Huang, H., Kim, G., Krivokon, M., Lee, B. H., Li, P., Muliawan, F., Nguyen, V., Boehm, B. W., Brown, A. W., Colbert, E., Lam, A., and Patel, M. (2005). Supporting Collection Development

Decisions by Mining and Analyzing Digital Archive Usage Data. *IEEE Technical Committee on Digital Libraries (TCDL) Bulletin*, Volume 2, Issue 1.

- Ward, J., Bollen, J., Pearson, J., Chan, S., Chi, H., Chi, M., Guevara, K., Huang, H., Kim, G., Krivokon, M., Lee, B. H., Li, P., Muliawan, F., Nguyen, V., Boehm, B. W., Brown, A. W., Colbert, E., Lam, A., and Patel, M. (2005). Mining and Analyzing Digital Archive Usage Data to Support Collection Development Decisions. In *Proceedings of the Fifth ACM/IEEE-CS Joint Conference on Digital Libraries*, Denver, CO, June 7-11 2005, 417.
- Ward, J. (2004). Unqualified Dublin Core Usage in OAI-PMH Data Providers. *OCLC Systems and Services*, 20(1), 40-47.
- Ward, J. (2003). A Quantitative Analysis of Unqualified Dublin Core Metadata Element Set Usage within Data Providers Registered with the Open Archives Initiative. In *Proceedings of the Third ACM/IEEE-CS Joint Conference on Digital Libraries*, 315-317.

NON-REFEREED PAPERS

- Ward, J.H. (2011). Classifying Implemented Policies and Identifying Factors in Machine-Level Policy Sharing within the integrated Rule-Oriented Data System (iRODS). In *Proceedings of the iRODS User Group Meeting 2011*, Chapel Hill, NC, February 17-18, 2011.
- Chua, M., de Torcy, A., Ward, J.H., & Crabtree, J. (2010). Using iRODS to Preserve and Publish a Dataverse Archive. In *Proceedings of the iRODS User Group Meeting 2010*, Chapel Hill, NC, March 24-26, 2010.

POSTERS

- Moore, R.W., Regli, W., Goodall, J., Orcutt, J., Rajasekar, R., Tibbo, H.R., Ahalt, S., & Greenberg, J. (2013). *The DataNet Federation Consortium*. J.Ward (Ed.). Poster presented at the ESIP Federation Meeting 2013, Chapel Hill, NC USA, July 9-12, 2013.
- Moore, R.W., Regli, W., Goodall, J., Orcutt, J., Rajasekar, R., Tibbo, H.R., Ahalt, S., & Greenberg, J. (2013). *The DataNet Federation Consortium*. J.Ward (Ed.). Poster presented at the DataONE Users Group Meeting 2013, Chapel Hill, NC USA, July 7-8, 2013.
- Ward, J.H., Conway, M.C., Xu, H., de Torcy, A., & Russell, T.G. (2013). *Policy Domains: Towards a "Trusted Digital Repository in a Box"*. Poster presented at Curate Thyself: Defining and Cultivating an Academic Trajectory in Digital Curation, DigCCurr PhD Symposium, Chapel Hill, NC USA, March 18, 2013.

- Ward, J.H., Conway, M.C., Xu, H., de Torcy, A., & Russell, T.G. (2013). *Policy Domains: Towards a "Trusted Digital Repository in a Box"*. Poster presented at the Ninth Annual Research Symposium, University Research Day, Chapel Hill, NC USA, February 26, 2013.
- Conway, M.C., Ward, J.H., de Torcy, A., Xu, H., Rajasekar, A., & Moore, R.W. (2011). *iRODS, Arch and iDrop: Components of a Policy-Based Preservation Environment*. Poster presented at the 2011 iRODS User Meeting, Chapel Hill, NC, February 17-18, 2011.
- Ward, J.H., Russell, T.G. & Chassanoff, A. (2010). *Building a Trusted Distributed Archival Preservation Service with iRODS*. Poster presented at the 2010 iRODS User Meeting, Chapel Hill, NC, March 24-26, 2010.
- Ward, J., de Torcy, A., Mantooth, J., Chua, M., and Crabtree, J. (2008). *Integrating Metadata into the NARA Transcontinental Persistent Archive Prototype via the OAI-PMH*. Poster session presented at the Doctoral Student Association Doctoral Research Symposium, Chapel Hill, NC, October 10, 2008.
- Ward, J., de Torcy, A., Mantooth, J., Chua, M., and Crabtree, J. (2008). *Integrating Metadata into the NARA Transcontinental Persistent Archive Prototype via the OAI-PMH*. Poster session presented at the Eighth ACM/IEEE-CS Joint Conference on Digital Libraries, Pittsburgh, PA, June 16-20, 2008.
- Ward, J. & Crabtree, J. (2008). *Integrating DDI Metadata into the NARA Transcontinental Persistent Archive Prototype via the OAI-PMH*. Poster at the 4th Annual University Research Day, 4 March 2008, Chapel Hill, NC.
- Ward, J. (2008). *Results of a Case Study of the DRAMBORA Risk Assessment Tool*. Poster at the 4th Annual University Research Day, 4 March 2008, Chapel Hill, NC.
- Ward, J. (2007). *Results of a Case Study of the DRAMBORA Risk Assessment Tool*. Poster at the 3rd International Digital Curation Conference, 11-13 December 2007, Washington, DC.
- Ward, J. (2007). *Crafting a Pilot Ingest Survey*. Poster at the 2007 Annual Research Forum of the Librarian's Association at UNC-CH (LAUNC-CH), Chapel Hill, NC, 22 May 2007.
- Ward, J., Bollen, J., Pearson, J., Chan, S., Chi, H., Chi, M., Guevara, K., Huang, H., Kim, G., Krivokon, M., Lee, B. H., Li, P., Muliawan, F., Nguyen, V., Boehm, B. W., Brown, A. W., Colbert, E., Lam, A., and Patel, M. (2005). *Mining and Analyzing Digital Archive Usage Data to Support Collection Development Decisions*. Poster and demo

presented at the Fifth ACM/IEEE-CS Joint Conference on Digital Libraries, Denver, CO, June 7-11 2005.

BRIEFING PAPERS, REPORTS, ETC.

- Moore, R.W., Marciano, R., Rajasekar, A., de Torcy, A., Conway, M., Ward, J., Schroeder, W., Wan, M., & Chen, S. (2010). *NARA Transcontinental Persistent Archive Prototype UCSD-UNC Collaboration Project*. OCI-0848296 Summary Report. September 15, 2010.
- Moore, R.W., Marciano, R., Rajasekar, A., de Torcy, A., Conway, M., Ward, J., Schroeder, W., Wan, M., & Chen, S. (2010). *NARA Transcontinental Persistent Archive Prototype UCSD-UNC Collaboration Project*. OCI-0848296 Status Report. June 30, 2010.
- Moore, R.W., Marciano, R., Rajasekar, A., de Torcy, A., Conway, M., Ward, J., Yu, T., Schroeder, W., Wan, M., & Chen, S. (2010). *NARA Transcontinental Persistent Archive Prototype UCSD-UNC Collaboration Project*. OCI-0848296 Status Report. March 31, 2010.
- Moore, R.W., Marciano, R., Rajasekar, A., de Torcy, A., Conway, M., Ward, J., Yu, T., Schroeder, W., Wan, M., & Chen, S. (2009). *NARA Transcontinental Persistent Archive Prototype UCSD-UNC Collaboration Project*. OCI-0848296 Status Report. December 31, 2009.
- Moore, R.W., Marciano, R., Rajasekar, A., Brieger, L., Crabtree, J., Ward, J., Chua, M., Schroeder, W., Wan, M., Chen, S., de Torcy, A., Hou, C., & Gilbert, L. (2009). *NARA Transcontinental Persistent Archive Prototype UCSD-UNC Collaboration Project*. Annual Report. September-August 2009.
- Moore, R.W., Marciano, R., Rajasekar, A., de Torcy, A., Hou, C., Brieger, L., Crabtree, J., Ward, J., Chua, M., Schroeder, W., Wan, M., Chen, S., Gilbert, G., Zhu, B., & Tooby, P. (2009). *NARA Transcontinental Persistent Archive Prototype UCSD-UNC Collaboration Project*. OCI-0848296 Status Report. January-March 2009.
- Moore, R.W., Marciano, R., Rajasekar, A., Brieger, L., Crabtree, J., Ward, J., Chua, M., Schroeder, W., Wan, M., Chen, S., de Torcy, A., Hou, C., & Gilbert, L. (2008). *NARA Transcontinental Persistent Archive Prototype UCSD-UNC Collaboration Project*. Status Report. September-December 2008.
- Wan, M., Marciano, R., Moore, R., Rajasekar, A., Schroeder, W., de Torcy, A., Chen, S., Brieger, L., Chua, M., Crabtree, J., and Ward, J. (2008). *NARA Transcontinental Persistent Archive Prototype UCSD Collaboration Project*. Request to NARA to extend the grant "National Archives and Records Administration NSF cooperative

agreement 0523307 supplement to SCI 0438741, 'Cyberinfrastructure; From Vision to Reality'" for FY2008-2009, June 2008.

- Moore, R., Marciano, R., Rajasekar, A., Schroeder, W., Wan, M., Chen, S., de Torcy, A., Hou, C., Nadeau, D., Jaja, J., Smorul, M., McGann, J., Brieger, L., Bidwell, M., Ward, J., and Chua, M. (2008). *NARA Transcontinental Persistent Archive Prototype SDSC, U Md, UNC Collaboration Project*. Extended Status Report, January-March 2008, April 2008.
- Ward, J. (2007). Project Briefing. *NARA Research Prototype Persistent Archive Extension Status Report July-September 2007*. UNC-CH, October 2007.
- Ward, J., Hank, C., & Zhang, Y. (2007). *Briefing Paper – Ingest Survey for the UNC-CH Pilot IR*. Digital Curation/Institutional Repository Committee, v. 1.0. A Product of the Digital Curation & Institutional Repository Committee. Chapel Hill, NC: UNC-CH University Library & the UNC-CH School of Information and Library Science, September 2007. Retrieved November 25, 2009 from http://ils.unc.edu/~wardj/IRC/ingest_survey-v1.0.pdf
- Ward, J. (2005). *Open Archives Initiative Protocol for Metadata Harvesting (OAI-PMH) Data Provider (DP) Requirements*. Document submitted to the DLF OAI Best Practices Committee to form the basis of OAI-PMH DP training materials to be published by the DLF and IMLS, 19 May 2005.

PRESENTATIONS, DEMONSTRATIONS, ETC.

- Ward, J.H. (2014). *An Examination of Machine-level Policy Implementation within iRODS Data Grids*. Invited speaker to the iRODS User Group Meeting at Harvard University, 18 June 2014.
- Ward, J.H., Xu, H., Conway, M.C., Russell, T.G., & de Torcy, A. (2013). *Using Metadata to Facilitate Understanding and Certification of Assertions about the Preservation Properties of a Preservation System*. Invited speaker to the Center for Research and Development of Digital Libraries (CRADLE) at the School of Information and Library Science at the University of North Carolina at Chapel Hill, 20 September 2013.
- Ward, J.H. (2011). *All Your Rule Base Are Belong to Me*. Presentation given at the iRODS User Meeting 2011, Chapel Hill, NC 17-18 February 2011.
- Ward, J.H. (2010). *Extracting and Ingesting DDI Metadata and Digital Objects from a Data Archive into the iRODS extension of the NARA TPAP using the OAI-PMH*. Invited speaker at "A Cataloging Research Blitz", UNC-CH, Chapel Hill, NC, 19 April 2010.
- Ward, J.H. (2009). *Extracting and Ingesting DDI Metadata and Digital Objects from a Data Archive into the iRODS extension of the NARA TPAP using the OAI-PMH*. Invited

speaker at IEEE Computer Society meeting, Eastern NC Section, Raleigh, NC, 17 November 2009.

- Ward, J.H. (2009). *Extracting and Ingesting DDI Metadata and Digital Objects from a Data Archive into the iRODS extension of the NARA TPAP using the OAI-PMH*. Demonstration given at the Society of American Archivists Summer Camp 2009, Chapel Hill, NC, 29 July 2009.
- Ward, J.H. (2009). *Enabling Collection Interoperability and Preservation Using iRODS and the OAI-PMH*. Presentation given at the DLF Forum Spring 2009, Raleigh, NC, 6 May 2009.
- Ward, J.H. & Howard, B. (2006). *Central Repository for a DL How-to*. Birds of a Feather (BOF) session at the Digital Library Federation (DLF) Forum Spring 2006, Austin TX, 11 April 2006.
- Ward, J.H. (2005). *USC's Digital Archive*. Invited speaker at "The ISD Team: Disseminating Information Throughout ISD..." presentation to faculty and staff who work in the Information Services Division (ISD) at the University of Southern California, Los Angeles, CA, 4 May 2005.
- Ward, J.H. (2005). *USC Digital Archive OAI-PMH Implementation*. Invited speaker at The Getty Research Institute, Los Angeles, CA, 6 April 2005.
- Ward, J.H. (2004). *University of Southern California Digital Archive Past Present Future*. Invited speaker at the Pacific Rim Digital Library Alliance, Taipei, Taiwan, 19 October 2004.
- Ward, J.H. (2004). *A Quantitative Analysis of Unqualified Dublin Core Metadata Element Set Usage within Data Providers Registered with the Open Archives Initiative*. Invited speaker at the Digital Library Round Table lecture series at the University of Southern California, Los Angeles, CA, 22 September 2004.
- Ward, J.H. (2004). *Global Access to Archival Materials Related to Los Angeles and the Pacific Rim: the USC Digital Archive*. Invited speaker on seamless access to a Thai delegation visiting the University of Southern California, Los Angeles, CA, 25 August 2004.
- Ward, J.H. (2004). *Status Report of the Institutional Repository Project*. Invited speaker via VTC at the Alliance for Innovation in Science and Technology Information (AISTI) ePrint Project Workshop, Santa Fe, NM, 27 April 2004.
- Ward, J.H. (2004). *'Metadata Research', or, 'Murphy's Law in Action: How to Bumble Your Way Through a Master's Paper, Graduate, and Get Published'*. Invited speaker via VTC to Dr. Jane Greenberg's metadata class at the School of Information and

Library Science at the University of North Carolina at Chapel Hill, Chapel Hill, NC, 6 April 2004.

- Ward, J.H. (2004). *Tracking Service Prototype*. Invited speaker at the Research Library, Los Alamos National Laboratory, Los Alamos, NM, 6 October 2003 and 6 January 2004.
- Ward, J.H. (2003). *'Something About Digital Libraries and Metadata': Two Weeks in Japan*. Invited speaker at the Research Library, Los Alamos National Laboratory, Los Alamos, NM, 28 & 30 July 2003.
- Ward, J.H. (2003). *The Research Library at Los Alamos National Laboratory (LANL): an Overview*. Invited speaker to the School of Library and Information Science and library faculty and staff at Keio University, Tokyo, Japan, on 17 June 2003.
- Ward, J.H. (2003). *The Open Archives Initiative Protocol for Metadata Harvesting: Overview*. Invited speaker to the School of Library and Information Science and library faculty and staff at Keio University, Tokyo, Japan, on 17 June 2003.
- Ward, J.H. (2003). *The Research Library at Los Alamos National Laboratory (LANL): an Overview*. Invited speaker to researchers, doctoral students and staff at the National Institute of Informatics (NII), Tokyo, Japan, on 16 June 2003.
- Ward, J.H. (2003). *Metadata in Digital Libraries and an Overview of the OAI-PMH*. Invited speaker to researchers, doctoral students and staff at the National Institute of Informatics (NII), Tokyo, Japan, on 16 June 2003.
- Ward, J.H. (2003). *A Quantitative Analysis of Unqualified Dublin Core Metadata Element Set Usage within Data Providers Registered with the Open Archives Initiative*. Invited speaker to researchers, doctoral students and staff at the National Institute of Informatics (NII), Tokyo, Japan, on 16 June 2003.
- Ward, J.H. (2003). *The Research Library at Los Alamos National Laboratory (LANL): an Overview*. Invited speaker at the School of Library and Information Science at Aichi Shukutoku University, Nagoya, Japan, 13 June 2003.
- Ward, J.H. (2003). *Metadata In Digital Libraries*. Invited speaker at the School of Library and Information Science at Aichi Shukutoku University, Nagoya, Japan, 13 June 2003.
- Ward, J.H. (2003). *A Quantitative Analysis of Unqualified Dublin Core Metadata Element Set Usage within Data Providers Registered with the Open Archives Initiative*. Invited speaker at the School of Library and Information Science at Aichi Shukutoku University, Nagoya, Japan, 13 June 2003.

- Ward, J.H. (2003) *The Research Library at Los Alamos National Laboratory (LANL): an Overview*. Invited speaker for a colloquium held at the Research Center for Knowledge Communities at the University of Tsukuba, Tsukuba, Japan, 11 June 2003.
- Ward, J.H. (2003). *Metadata In Digital Libraries*. Invited speaker for a colloquium held at the Research Center for Knowledge Communities at the University of Tsukuba, Tsukuba, Japan, 11 June 2003.
- Ward, J.H. (2003). *A Quantitative Analysis of Unqualified Dublin Core Metadata Element Set Usage within Data Providers Registered with the Open Archives Initiative*. Invited speaker for a colloquium held at the Research Center for Knowledge Communities at the University of Tsukuba, Tsukuba, Japan, 11 June 2003.
- Ward, J.H. (2003). *A Quantitative Analysis of Unqualified Dublin Core Metadata Element Set Usage within Data Providers Registered with the Open Archives Initiative*. Presentation given at the 2013 ACM/IEEE Joint Conference on Digital Libraries, Houston, Texas, May 27-31, 2003.

TEACHING/MENTORING/OTHER

University of Southern California

Los Angeles, CA

Client/Mentor – CS577a

2005

Worked with USC Computer Science master's students to design and develop an improved 3D UI for an analysis tool that uses digital library usage data during Fall 2005.

University of Southern California

Los Angeles, CA

Directed Research – Independent Study

2005

As part of a summer research project, directed a USC Computer Science master's student on a refinement of the user interface and backend of a prototype data mining tool developed during the primary academic year.

University of Southern California

Los Angeles, CA

Client/Mentor – CS577a and CS577b

2004-2005

Worked with USC Computer Science master's students to design, develop and implement an analysis tool for the USC Digital Archive usage data during the 2004-2005 academic year.

Keio University–School of Library and Information Science

Tokyo, Japan

Visiting Scholar

2003

Explored the current status of institutional repositories and the implementation of the Open Archives Initiative-Protocol for Metadata Harvesting (OAI-PMH) for two weeks in Japan. Gave lectures on metadata and digital libraries, the OAI-PMH, and the results of my master's paper research at four universities. Discussed digital library, metadata, and OAI-PMH issues with related professionals.

Durham Technical Community College

Durham, NC

Adult Education Instructor

1995–1996

Taught advanced English as a Second Language conversation and grammar to adults. Also taught survival skills – i.e., “How to live in the United States.”

Mind Games Eigo Gakuin

Mishima, Japan

English Language Instructor

1993–1994

Taught intermediate to advanced English as a Second Language conversation and grammar to adults and teenagers.

American School

Hamamatsu, Japan

English Language Instructor

1992

Taught intermediate English as a Second Language conversation and grammar to children and teenagers.

LIBRARY/UNIVERSITY SERVICE

- First Nations Graduate Circle (FNGC), UNC-CH **2011–2015**
- UNC SILS Diversity Committee **2009–2010**
- Curation and Archives Research **2007–2014**
- Communities and Digital Assets Management (CDAM) **2006–2007**
- UNC Scholarly Communication Committee (SCC) **2006–2007**
- UNC Digital Curation and Institutional Repository Committee (DC/IRC) **2006–2007**
- USC Ambassador **2004–2006**
- USC Information Services Division (ISD) Team **2004–2005**
- Chair, USC Digital Library Round Table (DLRT) **2004–2006**

PROFESSIONAL AFFILIATIONS & SERVICE

- IEEE SoutheastCon 2011, Reviewer **2010**
- IEEE SoutheastCon 2010, Reviewer **2009**

- IEEE Eastern NC Section **2009–Present**
- iConference 2009, Reviewer **2008**
- International Journal of Digital Libraries, Reviewer **2008**
- IMLS Native American Library Services, Enhancement Grant Panelist **2008**
- American Society for Information Science & Technology (ASIS&T): Leadership Development Committee **2012, 2008 & 2001–2006**
- IMLS Native American Library Services, Enhancement Grant Field Reviewer **2007**
- Digital Library Federation/UNC-CH SILS: DL How-to Working Group Chair **2006**
- Digital Library Federation (DLF): Open Archives Initiative Protocol for Metadata Harvesting (OAI-PMH) and Shareable Metadata Best Practices Working Group **2004–2006**
- Digital Library Federation (DLF): Program Committee **2004–2005**
- Los Angeles Chapter of the American Society for Information Science (LACASIS) **2004–2006**
- Institute of Electrical and Electronics Engineers (IEEE) **2004–Present**
- Alliance for Innovation in Science & Technology (AISTI): mailing list moderator and administrator **2003–2006**
- American Society for Information Science & Technology (ASIS&T) **2001–Present**
- American Computing Machinery (ACM) **2001–Present**

HONORS AND AWARDS

- Native American Incentive Grant: \$1200 Research Grant **2015**
- Native American Incentive Grant: \$600 Research Grant **2014**
- Native American Incentive Grant: \$2,200 Research Grant **2013**
- Native American Incentive Grant: \$2,000 Research Grant **2012**
- Native American Incentive Grant: \$2,000 Research Grant **2011**
- SILS Lester Asheim Fellowship **2010-2011**
- SILS Carnegie Grant: \$200 Research Grant **2009**
- IEEE Eastern NC Section: \$500 Travel Grant **2009**
- Digital Library Federation (DLF): Forum Fellowship **2004**

- Interpath Communications, Inc.: Key Performer Award

1999

HOBBIES/OTHER INTERESTS

Walking and hiking with my two dogs, swimming, music, wildlife conservation, watching movies, and, reading fiction and non-fiction books.