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EDUCATION:

- Ph.D., Old Dominion University, Computer Science, 2000
- M.S., Old Dominion University, Computer Science, 1997
- B.S., Virginia Tech, Computer Science, 1991

EXPERIENCE:

- Assistant Professor, Old Dominion University, Computer Science Department, Norfolk VA, 2002-
- Postdoctoral, University of North Carolina, Chapel Hill, Information and Library Science, 2000-2001
- Computer Engineer, NASA Langley Research Center, Hampton VA, 1991-2002
- Principal, Unified Research Laboratories, Hampton VA, 1995-1996
- Summer Visiting Researcher, Air Force Research Laboratory, Albuquerque NM, 1999, 2000
- Systems Programmer, Computer Sciences Corp., Hampton VA, 1991

TEACHING:

1. Fall 2007: CS 418/518, Web Programming, 23 students
2. Spring 2007: CS 495 / 595 Web Server Design, 9 students
3. Spring 2007: CS 791 / 891 Technologies of Google Seminar, 21 students
4. Fall 2006: CS 418/518 Web Programming, 22 students
5. Fall 2006: CS 751/851 Introduction to Digital Libraries, 10 students
6. Spring 2006: CS 495 / 595 Web Server Design, 15 students
7. Spring 2006: CS 791 / 891 Economics of Information Seminar, 27 students
8. Fall 2005: CS 695 Introduction to Digital Libraries, 7 students
9. Spring 2005: CS 791 / 891 Digital Preservation Seminar, 17 students
10. Fall 2004: CS 695 Peer-to-Peer Information Systems, 8 students
11. Fall 2004: CS 695 Introduction to Digital Libraries, 11 students
12. Spring 2004: CS 791 / 891 Digital Preservation Seminar, 9 students
13. Fall 2003: CS 495 / 595 Peer-to-Peer Information Systems, 8 students
14. Fall 2003: CS 695 Introduction to Digital Libraries, 6 students
15. Spring 2003: CS 410 Computer Based Productivity I, 20 students
16. Fall 2002: CS 695 Introduction to Digital Libraries, 16 students

PUBLICATIONS:

Protocols and Specifications

1. Herbert Van de Sompel, Carl Lagoze, Michael L. Nelson, Simeon Warner (eds.), "Conveying rights expressions about metadata in the OAI-PMH framework", 2005.
2. Herbert Van de Sompel, Carl Lagoze, Michael L. Nelson, Simeon Warner, Patrick Hochstenbach, and Henry Jerez (eds.), "Specification for an OAI Static Repository and an OAI Static Repository Gateway", 2003.
3. Carl Lagoze, Herbert Van de Sompel, Michael L. Nelson, Simeon Warner (eds.), "Implementation Guidelines for the Open Archives Initiative Protocol for Metadata Harvesting", 2003.
4. Carl Lagoze, Herbert Van de Sompel, Michael L. Nelson, Simeon Warner (eds.), "The Open Archives Initiative Protocol for Metadata Harvesting", July 2002.

Book Chapters

1. Martin Klein, Frank McCown, Joan A. Smith, and Michael L. Nelson. How much preservation do I get if I do absolutely nothing? Using the Web Infrastructure for digital preservation. Content Engineering: Konzepte, Technologien und Anwendungen in der Medienproduktion, ISBN: 978-3-940019-08-0, 2007, p. 71-87.
2. Frank McCown, Joan A. Smith, Michael L. Nelson, and Johan Bollen. Reconstructing Websites for the Lazy Webmaster. Dynamics of Search Engines: An Introduction, ISBN: 81-314-0679-2, 2007, p. 81-112.
3. Gretchen L. Gottlich, John M. Meyer, Michael L. Nelson and David J. Bianco "Integrating Information Technology Into Large Organizations," Chapter 17 in Cases in Information Technology Management in Modern Organizations, Mehdi Khosrowpour (Ed.), ISBN: 978-1878289377, March 1997, pp. 210-225.

Journal Articles

1. Frank McCown, Catherine C. Marshall, Michael L. Nelson, Why Websites Are Lost (and How They're Sometimes Found), Communications of the ACM, (accepted for publication).
2. Michael L. Nelson, Frank McCown, Joan A. Smith, Martin Klein, Using The Web Infrastructure To Preserve Web Pages, International Journal on Digital Libraries, 6(4), pp. 327-349, 2007.
3. J. Bollen, M. L. Nelson, G. Geisler, and R. Araujo, "Usage derived recommendations for a video digital library", Journal of Network and Computer Applications, 30(3), pp. 1059-1083, 2007.
4. Michael L. Nelson and Herbert Van de Sompel, IJDL special issue on complex digital objects: Guest editors' introduction, International Journal on Digital Libraries, 6(2), 2006, pp. 113-114.
5. Frank McCown, Xiaoming Liu, Michael L. Nelson, Mohammad Zubair, Search Engine Coverage of the OAI-PMH Corpus, IEEE Internet Computing, 10(2), 2006, pp. 66-73. (Pre-print available as LANL Technical Report LA-UR-05-9158).

6. X. Liu, J. Bollen, M. L. Nelson and H. Van de Sompel, "Co-authorship networks in the digital library research community", *Information Processing and Management*, 41(6), 2005, pp. 1462-1480.
7. X. Liu, K. Maly, M. L. Nelson, M. Zubair, "Lessons Learned with Arc, An OAI-PMH Service Provider", *Library Trends*, 53(4), 2005, pp. 590-603.
8. Michael L. Nelson, JoAnne Rocker and Terry L. Harrison, "OAI and NASA Scientific and Technical Information", *Library Hi-Tech*, 21(2), 2003.
9. Xiaoming Liu, Kurt Maly, Mohammad Zubair, Qiaoling Hong, Michael L. Nelson, Frances Knudson and Irma Holtkamp, "Federated Searching Interface Techniques for Heterogeneous OAI Repositories," *Journal of Digital Information*, 2(4), May 2002.
10. Michael L. Nelson, "Buckets: A New Digital Library Technology for Preserving NASA's Research", *Journal of Government Information*, 28(4), 2001, pp. 369-394.
11. Michael L. Nelson and Kurt Maly, "Buckets: Smart Objects for Digital Libraries," *Communications of the ACM*, 44(5), May 2001, pp. 60-62.
12. Michael L. Nelson, "Better Interoperability Through the Open Archives Initiative", *New Review of Information Networking*, 7, 2002, pp. 133-145.
13. Nancy R. Kaplan and Michael L. Nelson, "Determining the Publication Impact of a Digital Library," *Journal of the American Society of Information Science*, 51(4), 2000, pp. 324-339.
14. Sandra L. Esler and Michael L. Nelson, "Evolution of Scientific and Technical Information Distribution," *Journal of the American Society of Information Science*, 49(1), 1998, pp. 82-91.
15. Michael L. Nelson and Sandra L. Esler, "TRSkIt: A Simple Digital Library Toolkit, *Journal of Internet Cataloging*," 1(2), 1997, pp. 41-55.
16. Sandra L. Esler and Michael L. Nelson, "NASA Indexing Benchmarks: Evaluating Text Search Engines," *Journal of Computer and Network Applications*, 20(4), 1997, pp. 339-353.
17. Michael L. Nelson and Ming-Hokng Maa, "Optimizing the NASA Technical Report Server," *Internet Research: Electronic Network Applications and Policy*, 6(1), 1996, pp. 64-70.
18. Michael L. Nelson, Gretchen L. Gottlich, David J. Bianco, Sharon S. Paulson, Robert L. Binkley, Yvonne D. Kellogg, Chris J. Beaumont, Robert B. Schmunk, Michael J. Kurtz, Alberto Accomazzi and Omar Syed, "The NASA Technical Report Server," *Internet Research: Electronic Network Applications and Policy*, 5(2), 1995, pp. 25-36.

D-Lib Magazine (not referered)

1. Joan A. Smith, Michael L. Nelson, Observed Web Robot Behavior on Deep and Wide Web Sites, *D-Lib Magazine*, 14(3/4), 2008.
2. Joan A. Smith, Michael L. Nelson, Creating Preservation-Ready Web Resources, *D-Lib Magazine*, 14(1/2), 2008.
3. Joan A. Smith, Frank McCown, Michael L. Nelson, Observed Web Robot Behavior on Decaying Web Subsites, *D-Lib Magazine*, 12(2), 2006.

4. Giridhar Manepalli, Henry Jerez, Michael L. Nelson, FeDCOR: An Institutional CORDRA Registry, D-Lib Magazine, 12(2), 2006.
5. Michael L. Nelson, Johan Bollen, Giridhar Manepalli, and Rabia Haq, "Archive Ingest and Handling Test: The Old Dominion University Approach", D-Lib Magazine, 11(12), 2005.
6. Johan Bollen, Michael L. Nelson, Giridhar Manepalli, Giridhar Nandigam, and Suchitra Manepalli, "Trend Analysis of the Digital Library Community", D-Lib Magazine 11(1), 2005.
7. H. Van de Sompel, M. L. Nelson, C. Lagoze, S. Warner, "Resource Harvesting within the OAI-PMH Framework", D-Lib Magazine 10(12), 2004.
8. Michael L. Nelson, "Report on the Third ACM/IEEE Joint Conference on Digital Libraries (JCDL)", D-Lib Magazine, 9(7/8), 2003.
9. Michael L. Nelson, Herbert Van de Sompel and Carl Lagoze, "Report on the 2nd Workshop on the Open Archives Initiative, Gaining Independence with e-Print Archives and OAI", D-Lib Magazine 8(11), 2002.
10. Xiaoming Liu, Tim Brody, Stevan Harnad, Les Carr, Kurt Maly, Mohammad Zubair, Michael L. Nelson, "A Scalable Architecture for Harvest-Based Digital Libraries: The ODU/Southampton Experiments", D-Lib Magazine 8(11), 2002. (Also available as: arXiv cs.DL/0205071).
11. Michael L. Nelson and B. Danette Allen, "Object Persistence and Availability in Digital Libraries," D-Lib Magazine 8(1), January 2002.
12. Xiaoming Liu, Kurt Maly, Mohammad Zubair, Michael L. Nelson, "Arc: An OAI Service Provider for Digital Library Federation," D-Lib Magazine, 7(4), April 2001.
13. Michael L. Nelson and Kurt Maly, "Smart Objects and Open Archives," D-Lib Magazine, 7(2), February 2001.
14. Herbert Van de Sompel, Thomas Krichel, Michael L. Nelson, Patrick Hochstenbach, Victor M. Lyapunov, Kurt Maly, Mohammad Zubair, Mohamed Kholief, Xiaoming Liu, and Heath O'Connell, "The UPS Prototype project: team, goals, motivation and relation to the Santa Fe Convention," D-Lib Magazine, 6(2), February 2000.
15. Kurt Maly, Michael L. Nelson, and Mohammad Zubair, "Smart Objects, Dumb Archives: A User-Centric, Layered Digital Library Framework," D-Lib Magazine, 5(3), March 1999.

Refereed Conference Proceedings

1. Joan A. Smith, Michael L. Nelson, CRATE: A Simple Model for Self-Describing Web Resources, Proceedings of the 7th International Web Archiving Workshop (IWA 2007), Vancouver, British Columbia, Canada, 2007.
2. Martin Klein, Michael L. Nelson, OAI-PMH Repository Enhancement for the NASA Langley Research Center Atmospheric Sciences Data Center, Proceedings of the 7th International Web Archiving Workshop (IWA 2007), Vancouver, British Columbia, Canada, 2007.

3. Frank McCown, Amine Benjelloun, and Michael L. Nelson, Brass: A Queueing Manager for Warrick, Proceedings of the 7th International Web Archiving Workshop (IWAW 2007), Vancouver, British Columbia, Canada, 2007.
4. Frank McCown, Michael L. Nelson, Factors Affecting Website Reconstruction from the Web Infrastructure, Proceedings of JCDL 2007, pp. 39-48, 2007.
5. Joan A. Smith, Michael L. Nelson, Generating Best-Effort Preservation Metadata for Web Resources At Time of Dissemination, Proceedings of JCDL 2007, pp. 51-52, 2007.
6. Frank McCown, Michael L. Nelson, Characterization of Search Engine Caches, Proceedings of IS&T Archiving 2007, pp. 48-52. (Also available as available as arXiv cs.DL/0703083).
7. Catherine C. Marshall, Frank McCown, Michael L. Nelson, Evaluating Personal Archiving Strategies for Internet-based Information, Proceedings of IS&T Archiving 2007, pp. 151-156. (Also available as available as arXiv 0704.3647).
8. Frank McCown, Joan A. Smith, Michael L. Nelson, Johan Bollen, Lazy Preservation: Reconstructing Websites by Crawling the Crawlers, Proceedings of WIDM 2006, pp. 67-74.
9. Michael L. Nelson, Joan A. Smith, Ignacio Garcia del Campo, Herbert Van de Sompel, Xiaoming Liu, Efficient, Automatic Web Resource Harvesting, Proceedings of WIDM 2006, pp. 43-50.
10. Joan A. Smith, Martin Klein, Michael L. Nelson, Repository Replication Using NNTP and SMTP, Proceedings of ECDL 2006, pp. 51-62. (Expanded version available as arXiv cs.DL/0606008).
11. Frank McCown and Michael L. Nelson, Evaluation of Crawler Policies for a Web-Repository Crawler, Proceedings of Hypertext 2006, pp. 145-156.
12. Terry L. Harrison and Michael L. Nelson, Just-In-Time Recovery of Missing Web Pages, Proceedings of Hypertext 2006, pp. 157-168.
13. Frank McCown, Sheffan Chan, Michael L. Nelson, and Johan Bollen. "The Availability and Persistence of Web References in D-Lib Magazine", Proceedings of the 5th International Web Archiving Workshop and Digital Preservation, 2005.
14. Daniel S. Swaney, Frank McCown, and Michael L. Nelson, "Dynamic Web File Format Transformations with Grace", Proceedings of the 5th International Web Archiving Workshop and Digital Preservation, 2005.
15. F. McCown, J. Bollen, M. L. Nelson, Evaluation of the NSDL and Google for Obtaining Pedagogical Resources, Proceedings of ECDL 2005, Vienna Austria, pp. 344-355.
16. T. Lutkenhouse, M. L. Nelson, J. Bollen, Distributed, Real-Time Computation of Community Preferences, Proceedings of ACM Hypertext 05, Salzburg Austria, pp. 88-97.
17. M. L. Nelson, J. Bollen, J. R. Calhoun, C. E. Mackey, User Evaluation of the NASA Technical Report Server Recommendation Service, Proceedings of ACM WIDM 2004, Washington DC, pp. 144-151.
18. K. Maly, M. L. Nelson, M. Zubair, A. Amrou, S. Kothamasa, L. Wang, R. Luce, Kepler - A Communal Digital Library, Proceedings of ECDL 2004, Bath UK, pp. 317-238.

19. Kurt J. Maly, Michael L. Nelson, Mohammad Zubair, Ashraf Amrou, S. Kothasama, Lan Wang, Richard Luce, Light-weight communal digital libraries, Proceedings of JCDL 2004, Tucson AZ, June 7-11, 2004, pp. 237-238.
20. Hesham Anan, Jianfeng Tang, Kurt Maly, Michael Nelson, Mohammad Zubair, Zhao Yang, Challenges in Building Federation Services over Harvested Metadata, Proceedings of ICADL 2003, Kuala Lumpur, Malaysia, December 8-12, 2003, pp. 602-614.
21. Xiaoming Liu, Kurt Maly, Mohammad Zubair, and Michael L. Nelson, Repository Synchronization in the OAI Framework, Proceedings of the Third ACM/IEEE Joint Conference on Digital Libraries, Houston Texas, May 27-31, 2003, pp. 191-198. (Finalist for the Best Paper Award)
22. Terry L. Harrison, Michael L. Nelson, and Mohammad Zubair, The Dienst-OAI Gateway, Proceedings of the Third ACM/IEEE Joint Conference on Digital Libraries, Houston Texas, May 27-31, 2003, pp. 309-311.
23. Hesham Anan, Kurt Maly, Michael Nelson, Mohammad Zubair, Xiaoming Liu, Jinsong Gao, Jianfeng Tang and Zhao Yang, ARCHON: Building and Learning Environments Through Extended Digital Library Services, Proceedings of the 5th International Conference on New Educational Environments, Lucerne Switzerland, May 26-28, 2003.
24. K. Maly, M. Zubair, M. Nelson, X. Liu, H. Anan, J. Gao, J. Tang and Y. Zhao, ARCHON - A digital Library that Federates Physics Collections, Proceedings of DC-2002: Metadata for e-Communities Supporting Diversity and Convergence, Florence, Italy, October 13-17, 2002.
25. Xiaoming Liu, Kurt Maly, Mohammad Zubair, Rong Tang, Mohammed Imran Padshah, George Roncaglia, JoAnne Rocker, Michael L. Nelson, William von Ofenheim, Richard Luce, Jacqueline Stack, Frances Knudson, Beth Goldsmith, Irma Holtkamp, Miriam Blake, Jack Carter, Mariella Di Giacomo, Major Jerome Nutter, Susan Brown, Ron Montbrand, Sally Landenberger, Kathy Pierson, Vince Duran, Beth Moser, Technical Report Interchange Through Synchronized OAI Caches, Proceedings of ECDL 2002, Rome Italy, September 16-18, 2002, pp. 176-189.
26. Johan Bollen and Michael L. Nelson, "Adaptive Networks of Smart Objects," Workshop on Distributed Computing Architectures in Digital Libraries, ICPP 2002, Vancouver Canada, August 18-21, 2002.
27. Xiaoming Liu, Kurt Maly, Mohammad Zubair, and Michael L. Nelson, "DP9: An OAI Gateway Service for Web Crawlers," Proceedings of the Second ACM/IEEE Joint Conference on Digital Libraries, Portland Oregon, July 13-17, 2002, pp. 283-284.
28. H. Anan, X. Liu, K. Maly, M. Nelson, M. Zubair, J. C. French, E. Fox, P. Shivakumar, "Preservation and Transition of NCSTRL Using an OAI-Based Architecture," Proceedings of the Second ACM/IEEE Joint Conference on Digital Libraries, Portland Oregon, July 13-17, 2002, pp. 181-182.
29. Gary Geisler, Gary Marchionini, Michael Nelson, Richard Spinks, and Meng Yang, "Interface Concepts for the Open Video Project," Proceedings of the ASIST 2001 Annual Meeting, Washington DC, November 3-8, 2001, pp. 58-75.

30. Michael L. Nelson, Gary Marchionini, Gary Geisler and Meng Yang, "A Bucket Architecture for the Open Video Project," Proceedings of the First ACM/IEEE Joint Conference on Digital Libraries, Roanoke VA, June 24-28, 2001, pp. 310-311.
31. Xiaoming Liu, Kurt Maly, Mohammad Zubair and Michael L. Nelson, "Arc: An OAI Service Provider for Cross Archive Searching," Proceedings of the First ACM/IEEE Joint Conference on Digital Libraries, Roanoke VA, June 24-28, 2001, pp. 65-66.
32. Kurt Maly, Mohammad Zubair, Xiaoming Liu, Michael L. Nelson, and Steven J. Zeil, "Structured Course Objects in a Digital Library," Proceedings of the International Symposium on Digital Libraries, Tsukuba Japan, September 28-29, 1999, pp. 89-96.
33. Michael L. Nelson, Kurt Maly, Mohammad Zubair, and Stewart N. T. Shen, "SODA: Smart Objects, Dumb Archives," Proceedings of The Third European Conference on Research and Advanced Technology for Digital Libraries (ECDL'99), Paris, France, September 22-24, 1999, Lecture Notes in Computer Science, Vol. 1696, pp. 453-464. (Also available as ODU CS TR-98-09).
34. Michael L. Nelson, Kurt Maly, Delwin R. Croom Jr. and Steven W. Robbins, "Metadata and Buckets in the Smart Object, Dumb Archive (SODA) Model," Proceedings of the Third IEEE Meta-data Conference, April 6-7, 1999, Bethesda MD.
35. Michael L. Nelson, Kurt Maly, Stewart N. T. Shen and Mohammad Zubair, "A Multi-Discipline, Multi-Genre Digital Library for Research and Education," Proceedings of ED-MEDIA 98, Freiburg, Germany, June 20-25, 1998.
36. Michael L. Nelson, Kurt Maly, Stewart N. T. Shen and Mohammad Zubair, "NCSTRL+: Adding Multi-Discipline and Multi-Genre Support to the Dienst Protocol Using Clusters and Buckets," Proceedings of the IEEE Forum on Research and Advances in Digital Libraries (IEEE ADL 98), Santa Barbara, CA, April 22-24, 1998, pp. 128-136. (Also available as ODU CS TR-97-40).

Posters

1. Martin Klein, Michael L. Nelson, Juliet Z. Pao, Augmenting OAI-PMH Repository Holdings Using Search Engine APIs, Proceedings of JCDL 2007, p. 486, 2007.
2. Frank McCown and Michael L. Nelson, Search Engines and Their Public Interfaces: Which APIs are the Most Synchronized?, Proceedings of the 16th International World Wide Web Conference (WWW 2007), 2007.
3. Michael L. Nelson, Joan A. Smith, Martin Klein, Repository Replication Using SMTP and NNTP, Proceedings of Digital Government 2006, pp. 436-437.
4. Churgnwei Chu, Walter E. Baskin, Juliet Z. Pao, Michael L. Nelson, OAI-PMH Architecture for the NASA Langley Research Center Atmospheric Science Data Center, Proceedings of ECDL 2006, pp. 524-527.
5. M. L. Nelson, H. Van de Sompel, X. Liu, T. Harrison, N. McFarland, mod_oai: An Apache Module for Metadata Harvesting, Proceedings of ECDL 2005, Vienna Austria, pp. 509-510. (also available as arXiv Technical Report cs.DL/0503069).

6. M. L. Nelson, J. Bollen, If You Harvest arXiv.org, Will They Come?, Proceedings of JCDL 2005, Denver CO, June 7-11, 2005, p. 393.
7. J. Bollen, M. L. Nelson, R. Araujo, G. Geisler, Video Recommendations for the Open Video Project, Proceedings of JCDL 2005, Denver CO, June 7-11, 2005, p. 369.
8. Xiaoming Liu, Johan Bollen, Michael L. Nelson, Herbert Van de Sompel, Jeremy Hussell, Rick Luce, Linn Marks, Toolkits for visualizing co-authorship graph, Proceedings of JCDL 2004, Tucson AZ, June 7-11, 2004, p. 404. (Winner of the Best Poster Award).
9. Michael L. Nelson, JoAnne R. Calhoun, Calvin E. Mackey, The OAI-PMH NASA Technical Report Server, Proceedings of JCDL 2004, Tucson AZ, June 7-11, 2004, p. 400.
10. Mohammad Zubair, Kurt Maly, Imran Ameerally and Michael L. Nelson, "Dynamic Construction of Federated Digital Libraries," Poster, WWW9 Conference, Amsterdam, The Netherlands, May 15-19, 2000.
11. Michael L. Nelson, Kurt Maly and Stewart N. T. Shen, "Building a Multi-Discipline Digital Library Through Extending the Dienst Protocol," Proceedings of the Second International ACM Conference on Digital Libraries, July 20-23, 1997, pp. 262-263.

Reports and Other Publications

1. Suchitra Manepalli, Giridhar Manepalli, Michael L. Nelson, D2D: Digital Archive to MPEG-21 DIDL, arXiv cs.DL/0602059, 2006.
2. Frank McCown, Joan A. Smith, Michael L. Nelson, and Johan Bollen, "Reconstructing Websites for the Lazy Webmaster", arXiv Technical Report, cs.IR/0512069, 2005.
3. Aravind Elango, Johan Bollen, Michael Nelson, Dynamic Linking of Smart Digital Objects Based on User Navigation Patterns, arXiv Technical Report, cs.DL/0401029, January 2004.
4. Terry L. Harrison, Aravind Elango, Johan Bollen, Michael Nelson, "Initial Experiences Re-Exporting Duplicate and Similarity Computation with an OAI-PMH aggregator", arXiv Technical Report, cs.DL/0401001, January 2004.
5. Simeon Warner and Michael L. Nelson, "Report on the Metadata Harvesting Workshop at JCDL 2003", SIGIR Forum 37(2), Fall 2003.
6. Terry L. Harrison, Michael L. Nelson, Mohammad Zubair, "The Dienst-OAI Gateway: A Preservation Gateway for a Legacy Protocol", Old Dominion University Computer Science Department Technical Report TR-2003-01, March 2003.
7. JoAnne Rucker, George J. Roncaglia, Lynn N. Heimerl and Michael L. Nelson, "The NASA Scientific and Technical Information (STI) Program's Implementation of Open Archives Initiative (OAI) for Data Interoperability and Data Exchange". SLA 2002 Annual Special Libraries Association Conference, Los Angeles, California, June 8-13, 2002.

8. Michael L. Nelson, Kurt Maly, Mohammad Zubair and Diann Rucsh-Feja (Editors), "Experimental OAI-Based Digital Library Systems," NASA/TM-2002-211638, April 2002.
9. Michael L. Nelson, Brad Argue, Miles Efron, Sheila Denn and Maria Cristina Pattuelli, "A Survey of Complex Object Technologies for Digital Libraries," NASA/TM-2001-211426, December 2001.
10. Michael L. Nelson, "Smart Objects and Dumb Archives: Insuring the Long-Term Integrity of Digital Information," Proceedings of Exploration 2000, Philadelphia, PA, December 12-15, 2000, pp. 247-261.
11. Michael L. Nelson, "Buckets: Smart Objects for Digital Libraries," PhD Dissertation, Department of Computer Science, Old Dominion University, August 2000.
12. Michael L. Nelson and Kurt Maly, "Preserving the Pyramid of Scientific and Technical Information (STI) Using Buckets," Proceedings of the Fourth International Conference on Grey Literature, Washington DC, October 4-5, 1999, pp. 76-87. (Also available in the International Journal on Grey Literature, 1(4), 2000, pp. 174-178).
13. R. T. Bierdon, P. Mehrotra, M. L. Nelson, F. S. Preston, J. J. Rehder, J. L. Rogers, D. H. Rudy, J. Sobieszczanski-Sobieski and O. O. Storaasli, "Compute as Fast as Engineers Can Thinkg - Ultra Fast Computing Team Report," NASA TM-1999-209715, September 1999.
14. Michael L. Nelson, "A Digital Library for the National Advisory Committee for Aeronautics," NASA/TM-1999-209127, April 1999.
15. Kurt Maly, Mohammad Zubair, Stewart N. T. Shen, and Michael L. Nelson, "Generalizing an Existing Digital Library," Old Dominion University CS TR-99-01, February 1999.
16. Michael L. Nelson, Kurt Maly, Stewart N. T. Shen and Mohammad Zubair, "Buckets: Aggregative, Intelligent Agents for Publishing," Webnet Journal, 1(1), 1999, pp. 58-66. (Also available as NASA/TM-1998-208419 and ODU CS TR-97-41).
17. Melissa E. Tiffany and Michael L. Nelson, "Creating a Canonical Scientific and Technical Information Classification System for NCSTRL+," NASA/TM-1998-208955, December 1998.
18. Michael L. Nelson, Kurt Maly, and Mohammad Zubair, "Interoperable Heterogeneous Digital Libraries," Old Dominion University CS TR-98-07, September 1998.
19. Michael L. Nelson, "Building Multi-Discipline, Multi-Format Digital Libraries Using Clusters and Buckets," MS Thesis, Old Dominion University Computer Science Department, August 1997 (Also available as NASA TM-112876).
20. Michael L. Nelson, Kurt Maly and Stewart N. T. Shen, "Buckets, Clusters, and Dienst," ODU CS TR-97-30, May 1997 (also available as NASA TM-112877).
21. Ming-Hokng Maa, Sandra L. Esler and Michael L. Nelson, "Lyceum: A Multi-Protocol Digital Library Gateway," NASA TM-112871, July 1997.
22. Michael L. Nelson and David E. Corder, "The Workstation Clustering Environment at NASA Langley Research Center," Proceedings of the 3rd Annual

- Computational Aerosciences (CAS) Workshop, NASA Ames Research Center, August 13-15, 1996.
23. Richard C. Tuey, Mary Collins, Pamela Caswell, Bob Haynes, Michael L. Nelson, Jeanne Holm, Lynn Buquo, Annette Tingle, Bill Cooper and Roy Stiltner, "NASAwide Electronic Publishing System-Prototype STI Electronic Document Distribution: Stage-4 Evaluation Report," NASA TM-104630 (parts 1 and 2), May 1996.
 24. Ming-Hokng Maa and Michael L. Nelson, "Recent Improvements in the NASA Technical Report Server," NASA TM-110209, October 1995.
 25. Michael L. Nelson and David J. Bianco, "Accessing NASA Technology With the World Wide Web," IEEE Aerospace and Electronic Systems Magazine, 10(5), May 1995, pp. 7-13.
 26. Michael L. Nelson, Gretchen L. Gottlich, David J. Bianco, Robert L. Binkley, Yvonne D. Kellogg, Sharon S. Paulson, Chris J. Beaumont, Robert B. Schmunk, Michael J. Kurtz and Alberto Accomazzi, "The Widest Practicable Dissemination: The NASA Technical Report Server," Proceedings of Computers in Aerospace 10, AIAA-95-0964, San Antonio TX, March 28-30, 1995.
 27. Michael L. Nelson and David J. Bianco, "The World Wide Web and Technology Transfer at NASA Langley Research Center," Proceedings Second International World Wide Web Conference: Mosaic and the Web, Chicago, IL, October 18-20, 1994, pp. 701-710.
 28. Donna G. Roper, Mary K. McCaskill, Scott D. Holland, Joanne L. Walsh, Michael L. Nelson, Susan L. Adkins, Manjula Y. Ambur and Bryan A. Campbell, "A Strategy for Electronic Dissemination of NASA Langley Technical Publications," NASA TM-109172, December 1994.
 29. Michael L. Nelson, Gretchen L. Gottlich and David J. Bianco, "World Wide Web Implementation of the Langley Technical Report Server," NASA TM-109162, September 1994.
 30. Joseph A. Kaplan and Michael L. Nelson, "A Comparison of Queueing, Cluster and Distributed Computing Systems," NASA TM-109025 (Revision 1), June 1994.
 31. Michael L. Nelson and Gretchen L. Gottlich, "Electronic Document Distribution: Design of the Anonymous FTP Langley Technical Report Server," NASA TM-4567, March 1994.
 32. Trey Arthur and Michael L. Nelson, "Intel NX to PVM3.2 Message Passing Conversion Library," NASA TM-109038, October 1993.
 33. Joseph A. Kaplan and Michael L. Nelson, "A Comparison of Queueing, Cluster and Distributed Computing Systems," NASA TM-109025, October 1993.

Presentations

1. The Open Archives Initiative, Digital data preservation, sharing, and discovery: Challenges for Small Science Communities in the Digital Era, Durham NC (5/16/07) (Invited)
2. The Open Archives Initiative Object Re-Use and Exchange (OAI-ORE) Project, DLF Spring 2007, Pasadena CA (4/25/07)

3. An Update on the Open Archives Initiative Object Re-Use and Exchange (OAI-ORE) Project, CNI Spring 2007, Phoenix AZ (4/17/07)
4. "Using OAI-PMH Resource Harvesting & MPEG-21 DIDL for Digital Preservation", Open Repositories 2007, San Antonio TX (1/25/07)
5. "Using OAI-PMH Resource Harvesting & MPEG-21 DIDL for Digital Preservation", NDIIPP Partners Meeting, San Diego CA (1/17/07) (Invited)
6. "How much preservation do I get if I do absolutely nothing? Using the Web Infrastructure for Digital Preservation", MP 06, Berlin Germany (12/8/06) (Invited)
7. "Just-In-Time Preservation of Web Pages", Yahoo! Research, Barcelona Spain (12/5/06)
8. "Evaluating Ingest Success: Using the AIHT", DCC/LUCAS Workshop, Liverpool UK, (12/01/06) (Invited)
9. "Thinking Differently About Web Page Preservation", Library of Congress Seminar (06/29/06) (Invited)
10. "Repository Replication Using NNTP and SMTP", DLF Spring 2006, Austin TX (4/10/06) (Invited)
11. "What's new from the OAI", OAI-4, Geneva Switzerland (10/20/05) (Invited)
12. "OAI-PMH for resource harvesting", OAI-4, Geneva Switzerland (10/20/05)
13. "A New Model for Web Resource Harvesting", NASA/Raytheon Technology Infusion Team Meeting, Hampton VA (6/23/05)
14. "ODU AIHT", NDIIPP Partners Meeting, Warrenton VA (7/12/05) (Invited)
15. "Shared Infrastructure Preservation Models", NSF DIGARCH PI Meeting, Digital Government Conference, Atlanta GA (05/17/05)
16. "Harvesting Resources with OAI-PMH", SOLINET Annual Membership Meeting, Atlanta GA (05/05/05) (Invited)
17. "A New Model for Web Resource Harvesting", University of Florida Computer and Information Science Engineering Department Colloquium (03/29/05) (Invited)
18. "An Update from the OAI", CNI Fall 2004 Task Force Meeting, Portland Oregon (12/7/04)
19. "mod_oai: Metadata Harvesting for Everyone", DLF Forum 2004, Baltimore Maryland (10/27/04)
20. "OAI-PMH Tutorial", University of Southern California (6/15/04) (Invited)
21. "Implementation of Digital Libraries", International Congress of Health Information, Lima Peru (05/28/04) (Invited)
22. "A Review of Institutional Repository Projects and Technologies", Texas A&M (05/06/04) (Invited)
23. "New Digital Library Possibilities Using the OAI-PMH", First Latin American Workshop on the Production and Diffusion of Electronic Theses, Santiago Chile (11/3/03) (Invited)
24. "Self-Preserving Digital Objects", AISTI Mini Conference, Santa Fe New Mexico (9/16/03) (Invited)
25. "Institutional Archives Technology Overview", FLICC Workshop: Institutional Archives and Repositories in Government (9/12/03) (Invited)

26. "U.S. Government Use of the OAI-PMH", IndoUS Workshop on Open Digital Libraries and Interoperability, Arlington Virginia (6/24/03) (Invited)
27. "Using OAI-PMH for Resource Exchange", Metadata Harvesting Workshop at the Third ACM/IEEE Joint Conference on Digital Libraries, Houston Texas (with Terry Harrison) (5/31/03)
28. "Advanced Overview of Version 2.0 of the Open Archives Initiative Protocol for Metadata Harvesting", Half-day tutorial at the Third ACM/IEEE Joint Conference on Digital Libraries, Houston Texas. (with Herbert Van de Sompel and Simeon Warner) (5/27/03)
29. "U.S. Government Use of the OAI-PMH", ISTE / NSF Ibero-American Digital Library Joint Project Development Symposium, Campinas, Brazil (03/20/03) (Invited)
30. "Service Providers – Future Perspectives", Professional Scholarly Publishing Annual Conference, Washington DC (02/05/03) (Invited)
31. Invitational Web Services Seminar, OCLC Office of Research, Dublin OH, December 16-17, 2002. (Invited)
32. "Service Providers: Future Perspectives", Second Workshop on Open Archives Initiative, Geneva Switzerland, October 15-20 2002. (Invited)
33. "New Digital Library Possibilities Using the Open Archives Initiative Protocol for Metadata Harvesting (OAI-PMH)", International Conference on Scientific Electronic Publishing in Developing Countries, Valparaiso Chile, September 30 – October 2, 2002. (Invited)
34. "Advanced Overview of the Open Archives Initiative Protocol for Metadata Harvesting Version 2.0", Tutorial at the Second ACM/IEEE Joint Conference on Digital Libraries (JCDL 02), Portland Oregon, July 14, 2002. (with Herbert Van de Sompel and Simeon Warner).
35. "New Developments in OAI", OA-Forum, Pisa Italy, May 13, 2002. (Invited)
36. "OAI: XML-Based Digital Library Interoperability", CENDI: Federal STI Managers Meeting, Bethesda MD, April 3, 2002. (Invited)
37. "OAI: Past, Present and Future", Old Dominion University Computer Science Department Colloquium, October 17, 2001.
38. "OAI: Past, Present and Future", Managing Digital Video Content Workshop, Atlanta GA, August 16, 2001. (Invited)
39. "OAI: Past, Present and Future", UKOLN Open Archives Meeting, London UK, July 11, 2001. (Invited)
40. "Uses of OAI in NASA", NASA STI Managers' Meeting, NASA GSFC, Greenbelt MD, April 24, 2001. (Invited)
41. "Smart Objects and Dumb (but Open!) Archives", Guest Lecture for CS 502, Cornell University, April 20, 2001.
42. "The Open Archive Initiative," Student Chapter of the American Library Association, University of North Carolina School of Information and Library Science Colloquium, April 16, 2001.
43. "Smart Objects and Open Archives," University of North Carolina School of Information and Library Science Colloquium, April 12, 2001.
44. "Smart Objects and Open Archives," Old Dominion University Computer Science Department Colloquium, March 16, 2001.

45. "OAI Data Provider Experiences," OAI Open Day, Washington DC, January 23, 2001.
46. "Open Archives Initiative," Workshop on Web-Based Language Documentation and Description, Philadelphia PA, December 12-15, 2000. (Invited)
47. "Buckets: Smart Objects for Digital Libraries," School of Information and Library Science Brown Bag Seminar, University of North Carolina, Chapel Hill NC, December 1, 2000.
48. "OAI Implementation Experiences," Digital Library Federation Forum, Chicago IL, November 18, 2000. (Invited)
49. "Review and Discussion of Implementation Issues," Extending Interoperability of Digital Libraries: Building on the Open Archives Initiative, ACM DL 00, June 3, 2000.
50. "Smart Objects and Dumb Archives: Using Buckets in Digital Libraries," ICASE Colloquium, Hampton VA, November 9, 1999.
51. "The UPS Protoproto Project," UPS Meeting, Santa Fe, NM, October 21-22 1999, (with Herbert Van de Sompel and Thomas Krichel)
52. "Buckets: A New View for Digital Archives," EOSDIS DAAC User Working Group, Hampton, VA, September 9, 1998.
53. "Buckets: Aggregative, Intelligent Agents for Publishing in Digital Libraries," NASA Langley Research Center Technical Forum, Hampton, VA, July 15, 1998.
54. "Buckets: Aggregative, Intelligent Agents for STI Publishing," Presentation to the NASA STI Project Office, Hampton, VA, August 29, 1997.
55. "Understanding the Internet's Role in Technology Transfer and Organizational Strategy," October Meeting of the Pittsburgh Large User Group (PLUG), Pittsburgh, PA, October 24, 1996.
56. "Using DCE/DFS in a Production Workstation Cluster," ICASE/LaRC 2nd Industry Roundtable, Williamsburg, Virginia, October 7-9, 1996.
57. "WWW: An Overview of Technologies, Concepts, and Directions," Presented at the Multimedia Class for the Army Training Support Center, Fort Eustis, Virginia, June 24, 1996. (Invited)
58. "The NASA Technical Report Server," Special Libraries Association 87th Annual Conference, Boston, MA, June 8-13, 1996.
59. "Workstation Clustering: Resistance is Futile," NASA LaRC Information Systems Division Seminar, Feb 17, 1995.
60. "Changing the Way We do Business Through Use of the World Wide Web and NCSA Mosaic," Virginia Society of Professional Engineers, Oct 22, 1994. (Invited)
61. "Use of World Wide Web and NCSA Mosaic at Langley," Computer Systems Technical Committee Workshop, "The Role of Computers in LaRC R&D", NASA CP-10159, Hampton, VA, June 15-16 1994, pp. 224-236.
62. "PVM Use in Computational Aerosciences Projects," First PVM Users Group, Knoxville, TN, May 10-11, 1993.
63. "PVM and the Intel Hypercube," 7 -> 9 Project Review, September 24, 1992.

GRANTS AWARDED:

1. 2007-2008, Tools for a Preservation-Ready Web, (PI, \$149,941, Library of Congress)
2. 2007-2011 CAREER: Self-Preserving Digital Objects, (PI, \$540,754, NSF)
3. 2006-2007, SGER: In Vivo Digital Preservation, (PI, \$101,895, NSF)
4. 2006 Repository Design and Support for the Library of Congress, (PI, \$16,156, Library of Congress)
5. 2005-2006, OAI-PMH Repository Analysis for the NASA Langley Research Center Atmospheric Sciences Data Center, (PI, \$50,892, NASA).
6. 2005-2006, Shared Infrastructure Preservation Models, (PI, with J. Bollen (ODU), \$111,300, NSF)
7. 2004-2005, Self-Preserving Digital Objects, (PI, with J. Bollen (ODU), \$109,836, Library of Congress)
8. 2004-2005, mod_oai: Getting OAI for Free, (PI, \$47,433, Andrew Mellon Foundation)
9. 2003-2004, Digital Library Technology/Application Development, (Co-PI, with K. Maly (ODU), M. Zubair (ODU), and J. Bollen (ODU), \$240,000, NASA Langley Research Center)
10. 2002-2004, Kepler -- A Communal Digital Library, (Co-PI, with K. Maly (ODU), M. Zubair (ODU), \$700,000)
11. 2001-2002, An OAI-Compliant Federated Physics Digital Library for the NSDL, (Co-PI, with K. Maly (ODU), M. Zubair (ODU), \$479,997)

CONSULTING:

- ICASE, Hampton VA, August 2002 - December 2002
- ASRC Aerospace Corporation, Greenbelt MD, January 2003 - September 2003
- University of Southern California, Los Angeles CA, June 2004.
- Inlight Software, Sunnyvale CA, 2004

HONORS, AWARDS AND PRIZES:

- 2007, NSF CAREER Award
- 2004, best poster, ACM/IEEE JCDL 2004
- 2003, best paper finalist, ACM/IEEE JCDL 2003
- 2000, NASA Langley Research Center Information Technology Fellowship

MEMBERSHIP IN PROFESSIONAL SOCIETIES:

- Member, ACM
- Member, IEEE
- Member, ASIS&T

UNIVERSITY SERVICE:

- Panelist, ODU RF NSF Research Proposal Workshop, 2004
- Panelist, ODU RF NSF CAREER Proposal Workshop, 2007

PROFESSIONAL SERVICE:

Editorial Boards

- International Journal of Digital Libraries (IJDL) (2005-)
- ACM Journal on Education Resources in Computing (JERIC) (2005-2006)

Organizing Committees

- Doctoral Consortium Co-Chair, ACM/IEEE Joint Conference on Digital Libraries, 2008
- Workshop Chair, ACM/IEEE Joint Conference on Digital Libraries, 2007
- Program Co-Chair, ACM/IEEE Joint Conference on Digital Libraries, 2006
- Tutorial Co-Chair, ACM/IEEE Joint Conference on Digital Libraries, 2005
- Co-Chair, Workshop on Distributed Computing Architectures for Digital Libraries, 2002 (joint with ICPP 2002)
- Sponsoring and Exhibiting Chair, ACM/IEEE Joint Conference on Digital Libraries, 2001
- Co-Chair, Workshop on Experimental OAI-Based Digital Library Systems, 2001 (joint with ECDL 2001)

Program Committees

- ACM/IEEE Joint Conference on Digital Libraries (JCDL): 2008, 2007, 2005, 2004, 2003, 2002
- ACM Workshop on Web Information and Data Management (WIDM): 2007, 2005
- Healthcare Digital Libraries Workshop (HDL): 2005, 2004, 2003
- International Conference on Asian Digital Libraries (ICADL): 2007

Reviewer

- ACM Journal on Educational Resources in Computing
- ACM Transactions on Internet Technology
- Communications of the ACM
- IEEE Internet Computing
- IEEE Systems, Man and Cybernetics Part A
- IEEE Transactions on Computers
- International Journal of Digital Libraries
- Health Informatics Journal

Editor

- Co-Editor, International Journal of Digital Libraries Special Issue on Digital Objects, 2006
- Co-Editor, "Conveying rights expressions about metadata in the OAI-PMH framework", 2005.
- Co-Editor, "Specification for an OAI Static Repository and an OAI Static Repository Gateway", 2003.

- Co-Editor, "Implementation Guidelines for the Open Archives Initiative Protocol for Metadata Harvesting", 2003.
- Co-Editor, "The Open Archives Initiative Protocol for Metadata Harvesting", July 2002.

Advisory Boards

- Open Language Archive Community (OLAC)
- University of Arizona, Graduate Certificate in Digital Information Management