

# Sandy Payette

## *Curriculum Vitae*

### Education

<b>PhD, Communication</b> , minor in Science & Technology Studies <b>Cornell University</b>	2018
<b>Master of Science, Communication</b> <b>Cornell University</b>	2015
<b>Master of Business Administration (MBA)</b> <b>Binghamton University, State University of New York</b>	1986
<b>Bachelor of Science, Information Systems</b> , Magna Cum Laude <b>Binghamton University, State University of New York</b>	1985

### Professional Experience

<b>Interim Associate University Librarian</b>	2018-present
<b>Director of IT for Research and Scholarship</b> <b>Cornell University Library, Ithaca, NY</b>	2016-present

Member of the Library's executive team with a specific focus on research lifecycle, technical infrastructure, socio-technical systems, diversity and inclusion. Provide vision and strategy for integrated systems providing access and preservation for scholarly and scientific resources on the Web. Provide technical leadership for the Library's contribution to the research and learning environment of Cornell University. More broadly, collaborate with research universities, libraries and information organizations on strategic initiatives for a collaborative and emerging of "knowledge infrastructure."

<b>Research Investigator, School of Information &amp; ICPSR</b> <b>University of Michigan, Ann Arbor, MI</b>	2013 – 2015
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Researcher and program manager for the Sustainable Environment Actionable Data initiative (SEAD, <http://sead.data.net>), one of four DataNet partners funded by the National Science Foundation (NSF). Unique contributions made in the development of research data infrastructure to serve scientists and researchers who openly publish and share data. Demonstrated new technology for providing end-to-end data management capabilities and interoperability with other systems that offer publication, preservation, archiving, and discovery of research data.

<b>Chief Executive Officer (CEO)</b> <b>DuraSpace, Ithaca, NY</b>	2007 – 2011
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Founder and CEO of DuraSpace, a 501(c)(3) not-for-profit, whose mission is to provide leadership and innovation in the development of open source technologies that support digital repositories, access, storage, and long-term preservation of

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digital content. In the role of CEO, I collaborated with academic, scientific, cultural, and technology communities in creating practical solutions to help ensure that current and future generations have access to content and data in digital form – essentially contributing to emerging knowledge infrastructure. I led DuraSpace during its startup years, building services and programs to serve global user communities. The DuraSpace organization remains the home of Fedora Repository and DSpace, two well-established open source digital repository solutions. In addition, under my leadership DuraSpace also developed DuraCloud, a cloud-based service providing digital preservation and access capabilities over a network of utility cloud providers. DuraSpace was originally founded as Fedora Commons Inc.

**Project Director and Researcher** 2001 – 2007  
**Cornell University, Computing and Information Science, Ithaca, NY**

Leader in technical architectures for digital libraries, digital repositories, digital preservation, information modeling, security, and policy enforcement. Directed the Fedora Project, a collaboration with the University of Virginia, that produced the open source Fedora Repository software. Wrote successful grant proposals and conducted research to support scholarly communication and scientific collaboration.

**Researcher, Cornell Digital Library Research Group** 1997-2001  
**Cornell University, Computer Science Department, Ithaca, NY**

Researcher, designer and developer of the Flexible Extensible Digital Object Repository Architecture (Fedora). Wrote successful grant proposals and directed the development of Fedora into the open source software that is widely deployed in universities, research libraries, and information management organizations.

**Senior Software Engineer** 1994-1997  
**Cornell University, Albert R. Mann Library, Ithaca, NY**

Designer of library systems supporting research and education. Developed key modules for the Mann Library Gateway one of the first Web-based applications providing search and access to a full range of electronic library resources.

**Project Manager and Senior Systems Analyst** 1990-1994  
**Corning Incorporated, Systems Engineering, Corning, NY**

Researched, designed and developed applications in the areas of decision support systems, strategic business analysis, and executive information systems.

**Systems Analyst/Programmer** 1986-1990  
**Corning Incorporated, Technical Products, Corning, NY**

Designed and developed applications supporting sales forecasting, marketing, and business analysis for products in the industrial and consumer products sectors.

## Recent Publications

**Payette, S.** (2018). *Culture Not Numbers: Dilemmas and Discourses of the Underrepresentation of Women in Computing* (Doctoral dissertation). Available from ProQuest Dissertations and Theses database. (Pub#: 10846885)

Javed, M., **Payette, S.**, et. al, "VIZ-VIVO: Towards Visualizations-driven Linked Data Navigation," Proceedings of the Second International Workshop on Visualization, Ontologies and Linked Data, International Semantic Web Conference (ISWC 2016), Kobe, Japan, October 2016, <http://ceur-ws.org/Vol-1704/paper7.pdf>

**Payette, S.**, "Hopper and Dijkstra: Crisis, Revolution, and the Future of Programming," IEEE Annals of the History of Computing, vol. 36, no. 4, December 2014, <http://ieeexplore.ieee.org/document/6982140/>

Jackson, S.J., Gillespie, T., **Payette, S.**, "The Policy Knot: Re-integrating Policy, Practice, and Design in CSCW Studies of Social Computing," Proceedings of Computer-Supported Cooperative Work (CSCW), Baltimore, MA, February 2014, <http://dl.acm.org/citation.cfm?id=2531674>.

### Publications and Conference Papers

#### *Fedora Open Source Software for Digital Repositories*

**Payette, S.** and Lagoze, C., "Flexible and Extensible Digital Object and Repository Architecture (FEDORA)", European Conference on Research and Advanced Technology for Digital Libraries, Heraklion, Crete, published in LNCS, Springer, 1998, pre-print at <http://arxiv.org/abs/1312.1258>

**Payette, S.** and Lagoze, C., "Policy-Carrying, Policy-Enforcing Digital Objects," European Conference on Research and Advanced Technology for Digital Libraries, Lisbon, Portugal, published in Lecture Notes in Computer Science, Springer, 2000, pre-print at <http://arxiv.org/abs/1312.1260>

**Payette, S.** and Staples, T., "The Mellon Fedora Project: Digital Library Architecture Meets XML and Web Services," Sixth European Conference on Research and Advanced Technology for Digital Libraries, Rome, Italy, published in LNCS, Springer, September 2003, pre-print at <http://arxiv.org/abs/1312.1385>

Staples, T., Wayland, R., and **Payette, S.**, "The Fedora Project: An Open-Source Digital Object Repository System," D-Lib Magazine, April 2003, <http://www.dlib.org/dlib/april03/staples/04staples.html>

#### *Digital Library, Knowledge Infrastructure, and Digital Preservation*

**Payette, S.**, Hedstrom M., Plale, B., "SEAD: Infrastructure for Managing Research Data in the Long Tail," Grace Hopper Conference for Women in Computing (GHC15), Houston, TX, October 2015.

Meyers, J., Hedstrom, M., Ackmon, D., **Payette S.**, et al., Towards Sustainable Curation and Preservation: The SEAD Project's Data Services Approach, IEEE 11th International Conference on e-Science, 2015, <http://ieeexplore.ieee.org/document/7304332/>

**Payette, S.**, "The State of Technology for Digital Archiving," whitepaper presented to the Windsor Study Group on Digital Archiving, Charlottesville, Virginia, 2008, <http://arxiv.org/abs/1403.7748>

Lagoze, C., **Payette, S.**, Shin, E., and Wilper, C., "Fedora: An Architecture for Complex Objects and their Relationships," International Journal on Digital Libraries, Special Issue on Complex Objects, Springer, 2005, pre-print at <http://arxiv.org/abs/cs/0501012>

**Payette, S.** and Lagoze, C., "Value Added Surrogates for Distributed Content: Establishing a Virtual Control Zone," D-Lib Magazine, June 2000, <http://www.dlib.org/dlib/june00/payette/06payette.html>

**Payette, S.** and Lagoze, C., "Metadata: Principles, Practices, and Challenges, in Moving Theory into Practice," in Digital Imaging for Libraries and Archives, Research Libraries Group, Spring 2000.

**Payette, S.**, Bianchi, C., Lagoze, C. and Overly, E., "Interoperability for Digital Objects and Repositories: The Cornell/CNRI Experiments," D-Lib Magazine, May 1999. <http://www.dlib.org/dlib/may99/payette/05payette.html>

**Payette, S.**, "Persistent Identifiers in the Digital Terrain," RLG DigiNews, Volume 2, Number 2, April 15, 1998, <http://worldcat.org/arcviewer/1/OCC/2007/08/08/0000070519/viewer/file1312.html>

Lagoze, C. and **Payette, S.**, "An Infrastructure for Open Architecture Digital Libraries," Cornell Computer Science Technical Reports, TR98-1690, June 1998, <http://ncstrl.cs.cornell.edu:80/Dienst/UI/1.0/Display/ncstrl.cornell/TR98-1690>.

Daniel R., Lagoze, C., and **Payette, S.**, "A Metadata Architecture for Digital Libraries," Proceedings of the IEEE Forum on Research and Technology Advances in Digital Libraries, 1998, Santa Barbara, California, April 1998

Lagoze, C., Fielding, D., and **Payette, S.**, "Making Global Digital Libraries Work: Collection Services, Connectivity Regions, and Collection Views," ACM Digital Libraries '98, June 1998

### ***Scholarly Communication***

Warner, S., Bekaert, J., Lagoze, C., Liu, X., **Payette, S.**, and Van de Sompel, H. "Pathways: Augmenting Interoperability Across Scholarly Repositories," International

Journal on Digital Libraries, Special Issue on Digital Libraries and eScience 7, 1, 2007, 32-52, pre-print at <http://arxiv.org/abs/cs/0610031>

Van de Sompel, H., **Payette, S.**, Erickson, J., Lagoze, C., and Warner, S., "Rethinking Scholarly Communication: Building the System that Scholars Deserve," D-Lib Magazine, Sept. 2004, <http://www.dlib.org/dlib/september04/vandesompel/09vandesompel.html>

**Payette, S.** and Rieger, O., "Supporting Scholarly Inquiry: Incorporating Users in the Design of the Digital Library," Journal of Academic Librarianship, March 1998

**Payette, S.** and Rieger, O., "Z39.50: The User's Perspective," D-Lib Magazine, April 1997, <http://www.dlib.org/dlib/april97/cornell/04payette.html>

**Payette, S.**, "Moving Towards Optimal: Planning Delivery of Full-Text," Library Hi Tech, Volume 4, 1996

### Peer Reviewed Tutorials

"Semantic Digital Libraries," World Wide Web Conference (WWW 2007), Banff, Canada, May 2007

"Semantic Digital Libraries," European Semantic Web Conference (ESWC 2007), Innsbruck, Austria, June 2007

"Digital Libraries for the Digital Librarian: Making the Journey from Traditional to Digital Libraries," DELOS Summer School Faculty, Florence, Italy, May 2007

"Complex Objects, Information Networks, and the Challenges of Digital Preservation," *International Conference on Preservation of Digital Objects* (iPRES), Ithaca, New York, October 2006

"Introduction to Fedora and Advanced Topics," Joint Conference on Digital Libraries (JCDL), Chapel Hill, North Carolina, June 2006

"The Fedora Repository and Service Framework," European Conference on Research and Advanced Technology for Digital Libraries (ECDL), Alicante, Spain, September, 2006

"Digital Imaging for Libraries and Archives," Instructor for Workshop Series, Cornell University Library, Ithaca, New York, 1998-2000

### Grants

Principal Investigator, Fedora Commons, Inc., 2007-2011, startup funding for the not-for-profit organization that evolved to become DuraSpace.org, funded

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by the Gordon and Betty Moore Foundation, \$4.9 million  
(see: <http://www.duraspace.org/sites/duraspace.org/files/fedora/moore.pdf>)

Principal Investigator, DuraSpace (Fedora Commons Inc.), 2009-2011, The DuraCloud Pilot Partner Program, funded by the Library of Congress National Digital Information Infrastructure and Preservation Program (NDIIPP), \$300,000

Co-PI, DuraSpace (Fedora Commons Inc.), 2011-2012, DuraCloud: Direct to Researcher, funded by the Alfred P. Sloan Foundation, \$497,000

Co-PI, Fedora Commons, Inc., 2009-2012, The Data Conservancy, a subcontract with Johns Hopkins University, funded by the National Science Foundation, Office of Cyberinfrastructure (Datanet), \$400,000

Co-PI, Cornell Information Science, 2007-2010, The Fedora Service Framework: Blueprint for Next-Generation Scholarly Communication Systems, funded by the Andrew W. Mellon Foundation, \$589,000

Co-author/senior personnel, Cornell Information Science, 2004-2008, Pathways: a project to investigation of next-generation scholarly communication systems, funded by the National Science Foundation, \$1.2 million

Co-author/senior personnel, Cornell Information Science, 2004-2006, The Fedora Project (Phase II), funded by the Andrew W. Mellon Foundation, \$1.1 million

Co-author/senior personnel, Cornell Information Science, 2001-2004, The Fedora Project (Phase I): The Open-Source FEDORA Repository Development Project, funded by the Andrew W. Mellon Foundation, \$1 million

### Selected Invited Talks

"VIVO Futures: Scholarly Infrastructure, Sustainability, and Community" VIVO Conference, 2016, Denver, CO, August 2016.

"Supporting Reproducibility with Knowledge Infrastructure", Reproducibility Seminar Series, National Institute of Standards and Technology (NIST), Gaithersburg, MD, July 2016.

"Repositories and Cloud Services for Data Cyberinfrastructure," *International Association for Social Science Information Services and Technology (IASSIST)*, Cornell University, Ithaca, NY, June 2, 2010

"Building Scholarly and Scientific Information Infrastructure: Open Source, The Cloud, and the Role of High-Tech Non-Profit Organizations," *IST Graduate Symposium*, Penn State University, <http://gradsymp.ist.psu.edu/2009/>, February 2009

"A Service-Oriented Approach to E-research, E-scholarship and Advanced Scholarly Publication," *VALA: Libraries, Technology, and the Future*, Melbourne, Australia, <http://www.vala.org.au/conf2006.htm>, February 2006

"Beyond Storage: Rethinking the Role of Digital Repositories in Scholarly Communication," *DELOS Network of Excellence Workshop on Digital Repositories*, FORTH, Crete, Greece, May 2005

### **Selected Invited Workshops and Panels**

Knowledge Infrastructures: Intellectual Frameworks and Research Challenges. A workshop sponsored by the National Science Foundation and the Sloan Foundation, University of Michigan School of Information, Ann Arbor, Michigan, May 2012.

Managing Data in Difficult Times, Joint Meeting of JISC and the Coalition for Networked Information (CNI), Edinburgh, Scotland, June 2010.

International Digital Library Research and Development, sponsored by Council for Library and Information Services (CLIR) and Stanford University, November 29-December 1, 2009.

Open Source Community Development Panel, Grace Hopper Celebration of Women in Computer Science, September 2009.

Augmenting Interoperability Across Scholarly Repositories, A workshop sponsored by Mellon, CNI, DLF, and JISC, April 2006.

Service-Oriented Architecture and Fedora for E-Research, workshop for the eSciDoc Project of the Max Planck Society and FIZ Karlsruhe, Munich, Germany, May 2006

Open-Source Policy and Licensing Summit, Indianapolis, October 2006

Seminar on Building Digital Libraries with XML and Web Services, invited presentation, "Fedora: A Repository Architecture Built with XML and Web Services," Technical University of Denmark, Copenhagen, Denmark, August 2004

Ibero American Science and Technology Consortium (ISTEC) Symposium, invited presentation on the Fedora Project, Campinas, Brazil, South America, March 2003

Los Alamos National Laboratory, invited workshop and technical review of the Fedora Project, August 26, 2002, Santa Fe, New Mexico

Digitization Workshop at Goettingen University Library, invited presentation "Fedora and Interoperability for Digital Objects," Germany, October 5, 1999

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Digital Imaging of South Africa (DISA) Workshop, invited presentation and consulting, "Metadata and Architectural Considerations for Digital Libraries," Wits University, Johannesburg, South Africa, September 1997

National Institute of Standards and Technology (NIST), invited presentation, "Modularization and Interoperability: Dublin Core and the Warwick Framework," 2nd Meeting of the Learning Objects Metadata Group, Gaithersburg, MD, November 1997

National Library of Norway, invited workshop presentation and consulting, "Digital Library Architecture: A Service-Based Approach," Norway, November 1998

National Archives of Sweden, invited workshop presentation and consulting, "Effective Delivery of Archival Materials in Digital Libraries: Key Issues and Requirements," Stockholm, Sweden, May 1997

### **Selected Professional Activities**

Chairperson, Steering Committee, Open Repositories Conference, 2010-2011

Member, Steering Committee, Open Repositories Conference, 2007-2010

Member, Program Committee, Open Repositories Conference 2007-2010

Member, Sun Preservation and Archiving Special Interest Group, 2007-2009

Member, Windsor Study Group on Sustainable Digital Archiving of Scholarly Journals: Architecture for Collective Action, 2008

Co-Chair for Tutorials, Joint Conference on Digital Libraries (JCDL), 2008

Program Committee, VALA: Libraries / Changing Spaces; Virtual Places, 2008

Member, ORE Advisory Council, OAI Object Reuse and Exchange, 2007-2008

Review Panel, National Science Foundation, Digital Archiving (DIGARCH), 2004

Advisor to Harris Corporation for the U.S. National Archives Electronic Records Archives (ERA) prototype system, 2003-2004.

Member, Advisory Group, NSF/Library of Congress, National Digital Information Infrastructure and Preservation Program (NDIIPP), 2003