Jen Ferguson
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Education

Master of Science in Library and Information Science • Syracuse University
Digital Libraries concentration

Master of Science in Biology • Boston College
Thesis: "Analysis of *S. pombe* mitochondrial DNA by pulsed-field gel electrophoresis"

Bachelor of Science • Western Michigan University
Biological Sciences major with Chemistry minor

Experience: Libraries

Northeastern University - University Libraries, Research Data Services
Head, Research Data Services: 2019-present.
Research Data Management Librarian: 2016-2019.

I lead the library's research data services group, directly supervising two staff members with expertise in data analysis & manipulation, coding, GIS, and data visualization. We work with partners inside and outside the library to support data-intensive teaching and research.

I advise on data management tools, standards, documentation, and organizational techniques to support data discoverability, reuse, and preservation. I assist researchers preparing data management plans for grant applications and promote potential solutions for storage and preservation of research data upon project completion.

I partnered with faculty colleagues in the College of Social Sciences and Humanities to plan and host Data Rescue Boston at Snell Library. This event attracted nearly 100 attendees and was covered by local media. Our collaboration led to further joint efforts with these faculty members to raise awareness about endangered data.

Northeastern University - University Libraries, Research & Instruction
Assistant Head, Research & Instruction, Science and Data Services: 2012-2016.
Data Services Librarian: 2011-2012.

I led the team of science, engineering, technology, health sciences, and math liaisons, directly supervising three librarians. I also served as the liaison to the biology department. Other responsibilities included instruction, research assistance, and collection development and promotion.

I co-led the libraries' launch of the Primo discovery service. I worked with Ex Libris and with library colleagues across many departments to implement Primo, optimize search results, generate documentation, and communicate with users inside and outside the library. I continue to serve as a member of the group charged with maintaining Primo and providing a good user experience through upgrades, testing, and enhancements.

Brandeis University - Library & Technology Services
Research & Instruction Liaison: 2008-2011.

I served as liaison to all science departments in support of a broad range of teaching and research activities. My responsibilities included instruction, research assistance, collections promotion and management, and support & testing of Moodle-based content management system.

I initiated a new program to support senior students doing research in biology, neurobiology, and chemistry. I collaborated with science faculty to provide instruction and assistance relevant to students writing and defending senior honors theses.

I initiated and led a project that generated QR codes to promote and provide seamless access to library resources, including e-books, streaming media, databases, archival and special collections materials, and institutional repository holdings. Codes were created in a way that allowed simple assessment via usage tracking statistics.

Experience: Science

Wellesley College – Department of Biological Sciences
Research Assistant: 2006-2008.

I conducted laboratory research into the cell cycle of the yeast *S. cerevisiae*. I helped train student researchers and shared responsibility for maintaining lab records including the FileMaker database of yeast strains and characteristics.

MIT – Department of Biology
Technical Assistant: 1998-2006.
Technical Instructor: 1998.

I provided technical support and instruction for 7.02, a very large (175-200 students/year) biology lab course. I collaborated with colleagues to develop the course curriculum, teach, manage logistics, supervise undergraduate and graduate student workers, and design and troubleshoot experiments in genetics, cell biology, protein biochemistry, and developmental biology.

Consulting & Independent Projects

Community Expert, Fundamentals of Health Sciences Research Data Management online course • NNLM National Center for Data Services, 2022

Lead instructor, Launching Data Services unit, RDMLA • 2018-2019

Co-teacher, Data Curation & Documentation Module, Biomedical and Health Research Data Management for Librarians online course • NNLM Training Office, 2018

Lecturer, Research Data Management MOOC • UMass Medical Library, 2015-2016

Research Data Management Consultant • MCPHS University, 2015

Data Curator • Harvard School of Public Health, Bioinformatics Core, 2010-2011

Subject Matter Expert • Human anatomy & physiology online course, 2010

Skills

Teaching/presentation experience - 20+ years, in biology, chemistry, and libraries
Bench research experience, primarily in cell and molecular biology - 5+ years

Platforms & tools

Research data management: DMPTool, COEUS, Open Science Framework, REDCap
Data visualization: Tableau, ArcGIS StoryMaps
Data science and manipulation: Python, Jupyter Notebooks, text analysis
Qualitative data analysis: NVivo
Project management and documentation: GitHub, Podio, Trello
Online learning platforms and object creation: Canvas, Moodle, Jupyter Books, GitHub Pages
Digital libraries/repositories: Drupal, Grouper, Fedora
Databases & library platforms: Ex Libris Primo, Springshare, ICPSR, Web of Knowledge, PubMed
Bioinformatics resources: GEO, Entrez Gene, OMIM, BLAST

Service: Professional

Reviewer, Journal of eScience Librarianship, 2012-present
Sponsorship committee, RDAP Summit, 2018-2021
Program lead, lightning talks, RDAP Summit, 2018
Member, OCLC Research Data Management Interest Group, 2018
Co-chair, New England e-Science Portal Editorial Board, 2013-2016
Board member & editor, New England e-Science Portal, 2010-2013
Current member: RDAP Association
Past member, Boston Library Consortium CoIs: Scholarly Research & Chemistry
Past member: ACRL, SLA and ALA/MLA

Service: Northeastern University

Co-chair, Primo Oversight Group, 2012-2013 and 2017-2022
Co-chair, Resource Access & Discovery group, 2013-2016
Member, Tableau Group, 2019-2020
Member, Curriculum Committee, 2016-2018
Member, Faculty Onboarding Working Group, 2017
Member, search committees for the following positions:

- Dean, University Libraries and Vice Provost for Information Collaboration
- Associate Dean, Research and Learning Services
- Digital Scholarship cluster hire: Developer, Data Engineer, & Semantic Data Specialist
- STEM and health sciences librarians (5 positions)
- Senior Web Developer

Selected Presentations, Publications, and other works*

Ferguson, J., and Kirchhoff, A. *(in process).* Teaching data science and text analysis in the library. Presentation at 2022 Charleston Conference.

Ruediger, D., Ferguson, J., Bharti, N., Ivey, S., and Gorham, R.B. (2022). Data support services needs in the DIY era. Panel presentation at RDAP Summit 2022.

Python & text analysis for absolute beginners (interactive Jupyter Book).

Ruediger, Dylan, et al. (2021). Big data infrastructure at the crossroads: Support needs and challenges for universities. Ithaka S+R.

Ferguson, J., Kryder, K., Macalino, J., and Unis, J. (2021). Big data and data science research at Northeastern University.

Davis, H., Ferguson, J., and Moore, J. (2021). Understanding data teaching and research support needs. Presentation at the NERCOMP Annual Conference.

Ferguson, J. (2020). IPI in action. Guest lecture for LIS-532S, Foundations of IPI practice. Simmons University, Boston, MA

Ferguson, J., and Walker, P. (2020). Steal this curriculum: resources for teaching & learning about digital privacy. Presentation at NEASIST's Annual Winter Conference, Boston, MA.

Bettinger, E., Ferguson, J., Patterson, B., Rowell, C.J., Walker, P., and Wildenhaus, K. (2019). CryptoParty: Strengthen your digital privacy toolkit. Workshop presented at the DLF Forum, Tampa, FL

Ferguson, J. and Morin, R. (2019). Unit 4: Launching Data Services. Research Data Management Librarian Academy.

Ferguson, J. (2019). Beyond the DMP: Research data management and other library -based support and services are referenced throughout grant proposals. Poster presented at the RDAP Summit, Coral Gables, FL.

Ferguson, J. (2019). What are they saying about us? References to library support & services in grant proposals. Empirical Librarians Conference, Richmond, VA.

Corbett, H., Ferguson, J., and Sweeney, S. (2018). Intel inside: Using researchers' data management plans to guide development of support services. NERCOMP Annual Conference, Providence, RI.

Corbett, H., and Ferguson, J. (2018). Citation analysis: How we did it, and what we'd do differently. Empirical Librarians Conference, Knoxville, TN.

Corbett, H., Ferguson, J., and Sweeney, S. (2017). Keeping up with perpetual motion: Research lifecycle support services in academic libraries. Presented by H. Corbett at FORCE 2017, Berlin, Germany.

Corbett, H. and Ferguson, J. (2017). Assessing return on investment in licensed e-resources through citation analysis. Poster presented at NERCOMP Annual Conference, Providence, RI.

Ferguson, J. and Rust, A. (2016). Do funding agency data policies conflict with text mining license terms? Poster presented at the University of Massachusetts and New England eScience Symposium, Worcester, MA.

Boissy, R., Ferguson, J., Morrow, J., and Rust, A. (2015). Text mining support: Are we there yet? Presentation at TERMS of Engagement: Managing Collections & Electronic Resources Lifecycles, ACRL/NEC ERMIG & CDIG, Cambridge, MA.

Ferguson, J. (2015, 2014, 2013). Research data management: resources and tools. Guest lecture for LIS-532G, Scientific Research Data Management. Simmons College, Boston, MA.

Ferguson, J. (2013). Module 2: Types, formats, and stages of data. In *New England Collaborative Data Management Curriculum*. UMass Medical School Lamar Soutter Library & Partners.

Ferguson, J. (2013). A spectrum of scale: support for data needs in the sciences and social sciences. Presentation at New Roles for Supporting Digital Scholarship in Academic Libraries - ACRL/NEC SCIG. Boston, MA.

Ferguson, J. (2013). Lurking in the lab: Analysis of data from molecular biology laboratory instruments. *Journal of eScience Librarianship*.

Ferguson, J. (2012). Lurking in the lab: Analysis of data from molecular biology laboratory instruments. Poster presented at the International Association for Social Science Information Services & Technology (IASSIST) 2012 Conference, Washington, DC.

Ferguson, J. and Woodrum, A. (2012). Quick, quantifiable QR codes. Presentation at Computers in Libraries, Washington, DC.

Ferguson, J. (2012). A tale of two projects: The hands-on of data curation. Presentation at Understanding E-Science: A Symposium for Medical Librarians, Houston, TX.

Ferguson, J. (2012). Description and annotation of biomedical data sets. *Journal of eScience Librarianship.*

Ferguson, J. (2011). A tale of two projects: The hands-on of data curation. Presentation at the annual meeting of the Association of Academic Health Sciences Libraries, Denver, CO.

**Full list with links available here: https://sites.google.com/view/jasf/home*