

# Ryan Clement

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## Experience

### Data Services Librarian

2015 - present

*Middlebury College, Middlebury, VT*

- + Head of MiddLab, the cross-campus digital scholarship staff team (2017 – present); member of the mid.data Initiative Steering Committee (2022 – present); former head and current member of the Library User Experience team (head, 2016 – 2018; member, 2015 – present); member of the Digital Liberal Arts Initiative executive committee (2018 – 2020)
- + Led an extensive self-study and report on the current and future research computing landscape and needs across the institution
- + Analyze and visualize library statistics related to reference services, instruction/consultation, collections, and staffing; make recommendations for program changes based on assessment
- + Assist with projects involving finding, acquiring, managing, interpreting, analyzing, and visualizing both quantitative and qualitative data
- + Provide support for data-intensive research and teaching, including workshops, consultations, and review of research proposals and research data management strategies
- + Assist in technical work and policy development related to institutional open access repositories and research data curation
- + Serve as a liaison to anthropology, economics, geography, linguistics, mathematics, philosophy, and sociology departments; serve as Middlebury's government documents coordinator for the Federal Depository Library Program
- + Lead an average of 18 workshops per semester on library research, data manipulation, GIS, digital scholarship and other information/digital literacy topics.
- + Hold 80+ consultations per semester with students, faculty, and staff to assist with their research needs, covering research question refinement, literature/data search and acquisition, data cleaning/analysis, visualization, and research/citation/publication management, among other topics.

### Data Services Librarian

2013 - 2015

*Reed College, Portland, OR*

- + Lead in planning, support, and implementation of data services. Created documentation and tutorials for research skills related to data discovery, analysis, and visualization.
- + Lead the development of a collaborative, team-based data management instruction program for student, faculty, and staff research teams as part of the Northwest Five Consortium. Obtained a mini-grant to support the development and production of this two-day workshop.
- + Collaborated across departments to provide comprehensive support for data-intensive courses.
- + Assisted researchers in data management planning and execution, including the review of grant required data management plans.
- + Investigated and developed strategies, workflows, and policies for institutional

- research data curation.
- + Developed the first iteration of the Reed College Dataverse, curating and ingesting the Reed Linguistics Gender and Language Project data
- + Served as a liaison to psychology and philosophy departments, providing research and instruction support, collection development, and reference services for faculty and students in these departments.
- + Worked with Professor Kris Anderson to develop new information literacy instruction for her Psychopathology course as part of a grant-funded initiative.

**User Information Services Assistant**

2010 - 2013

*University of Michigan Graduate & Undergraduate Libraries*

- + Provided reference and information services for students, staff, faculty, and visiting researchers, on site within the Hatcher-Shapiro library complex and online via the library instant messaging/texting service.
- + Provided service support including resolving issues, assisting with research strategies, interpreting library policies, training users in the use of library and computing resources, etc. in a diverse environment with minimal supervision.

**Master's Student Research Assistant, P.A.V.E.L. Project**

2011 - 2013

*University of Michigan School of Information*

- + Assisted in the testing and deployment of virtualized digital archival tools for use in classroom instruction. Created and edited technical documentation for tools and virtualization process. Wrote and edited case studies related to the various courses involved in the project.
- + Maintained the project website using Drupal, including: managing users; updating modules; creating, editing, and ingesting content; and performing basic information architecture duties.

**Education**

Academic Credentials

**University of Michigan School of Information**

2012

*Master of Science in Information*

- + Library & Information Science, Human-Computer Interaction

**Temple University**

2006

*Master of Arts*

- + Philosophy

**University of Michigan**

2003

*Bachelor of Arts*

- + Psychology, Comparative Literature

Professional Education

**Models for Sustainable and Inclusive Data Science Consulting and Collaboration in Higher Education workshop series**

2023

- + Workshop series consisting of four virtual sessions, an multi-day, in-person meeting, and a collaborative edited volume exploring best practices, challenges, and ideas around the collaborative and consultative models for data science support. Topics include research enablement, power dynamics, funding and sustainability, and organizational models.

- Dialogic Classroom: Teaching for Humility & Engagement** 2021
- + Workshop was run by Essential Partners. Learned to use dialogue tools in the classroom and in other campus encounters. Learned to differentiate between facilitator and educator roles and how to prepare spaces and activities to best engage in each practice.
- Text Analysis Pedagogy Institute: Machine Learning**
- + This three-day workshop covered fundamental principles and practices of machine learning (deep learning) for text analysis, including techniques for text classification and topic modeling. Workshop was taught by William Mattingly and was funded by a grant from the National Endowment for the Humanities.
- Carpentries Instructor Certification** 2018
- + Received certification to teach Software Carpentry, Data Carpentry, and Library Carpentry workshops. Learned pedagogical concepts and evidence-based teaching practices such as crafting learning outcomes, live coding, formative assessment, and techniques for motivating diverse learners. Learned to apply these concepts to workshops teaching coding and data manipulation for novice learners.
- ACRL Assessment in Action** 2017  
*Vermont Technical College*
- + Identified methods for connecting assessment projects to institutional goals and communicating their results. Learned how to apply action research methodology to personal and institutional assessment projects.
- ACRL Immersion: Teacher Track** 2016  
*Champlain College*
- + Learned to design meaningful instructional activities in a systematic fashion. Analyzed and assessed personal habits, motivations, and styles to improve instructional repertoire. Learned assessment techniques and strategies to improve practice and outcomes.
- DLF eResearch Network**
- + Worked to begin developing praxis-based agenda for institutional data services and digital scholarship support. Developed an institutional plan for an institutional repository. Developed our local and institutional community of practice.
- Data Carpentry** 2015  
*White Stag Building, Oregon State University*
- + Learned tools such as OpenRefine, Python, and the Bash shell for use in data science. Learned about the Data Carpentry method and plan for instruction.
- Providing Social Science Data Services** 2014  
*Inter-university Consortium for Political and Social Research (ICPSR)*
- + Learned methods for managing data collections, providing data reference services, research data management and curation, and building a sustainable data services program.

## Software & Coding Skills

Google Apps, LibApps, MS Office, OpenRefine, Zotero  
Expert  
Bash/Zsh, Git, Python, R/RStudio, Stata, StoryMaps  
Advanced  
ArcGIS, HTML/CSS, EndNote, Illustrator, Jekyll, Photoshop, QGIS, Tableau, Intermediate  
WordPress  
Hugo, Javascript, LaTeX, Leaflet, MySQL, NVivo, Omeka, SPSS  
Fundamentals

## Works

ORCID ID 0000-0003-4395-267X

- Publications
- Data Literacy: Critically Evaluating and Using Data** 2022  
*SAGE Skills: Student Success*  
+ available from SAGE Knowledge
- How are we measuring up? Evaluating research data services in academic libraries** 2018  
*Journal of Librarianship & Scholarly Communication*  
+ With H Coates, J Carlson, M Henderson, L Johnston, & Y Shorish  
+ DOI: 10.7710/2162-3309.2226
- Team-based data management instruction at small liberal arts colleges** 2017  
*IFLA Journal*  
+ With A Blau, P Abbaspour, & E Gandour-Rood.  
+ DOI: 10.1177/0340035216678239
- The databrarian in the liberal arts college** 2016  
in *Databrarianship: The Academic Data Librarian in Theory and Practice*  
+ Edited by L Kellam & K Thompson
- Walking a mile in the user's shoes: Customer journey mapping as a method to understanding the user experience** 2015  
*Internet Reference Services Quarterly*  
+ With J Marquez & A Downey.  
+ DOI: 10.1080/10875301.2015.1107000

## Presentations, Panels, &

### Lightning Talks

- Research Data Roundtable: Assessment and Research Data Services** 2022  
*Online*
- Given Meaning: Centering the work of data visualization in instruction** 2021  
*IASSIST Global Virtual Conference*  
+ With J Joque, A Rutkowski, and A Sonnichsen
- RDM solutions for smaller institutions** 2019  
*National Network of Libraries of Medicine (NNLM) e-Science Webinar Series*  
+ With W Shook

- Library & laboratory: institutionalizing a dynamic digital projects infrastructure across workgroups** 2017  
*Digital Library Federation Forum*  
+ With P Wallace
- Looking at the library data in the mirror: taking our own advice about data management**  
*IASSIST Annual Conference*
- It takes a village: Collaboratively building a cross-disciplinary digital repository** 2016  
*Digital Library Federation Forum*  
+ With W Shook & P Wallace
- Collaborating across units to support digital scholarship**  
*Oberlin Digital Scholarship Conference*  
+ With A Peaker & P Wallace
- Beyond finding and managing: Extending research data services at liberal arts institutions**  
*Oberlin Digital Scholarship Conference*
- Measuring up: How are we defining success for research data services?**  
*Research Data Access & Preservation Summit*  
+ With H Coates, J Carlson, M Henderson, L Johnston, & Y Shorish
- NW5C research data management & curation workshop: A collaborative model for liberal arts colleges** 2015  
*Digital Library Federation Liberal Arts Pre-Conference*  
+ With A Blau & P Abbaspour
- Think like a scholar: Using the ACRL Framework to shape collaborative, discipline-based information literacy instruction**  
*Oregon Library Association Annual Conference*  
+ With A Downey & E Conor
- Where's the data? - Building data services for liberal arts colleges**  
*Association of College and Research Libraries Conference*  
+ With G Bastone & K Partlo
- Reed College Dataverse pilot project** 2014  
*Pacific Northwest Data Curators Biannual Meeting*
- The DIY conference: A communities of practice model for library student development** 2012  
*Michigan Library Association Annual Conference*  
+ With M Cherem & K Davenport
- Unusual backgrounds: Broadening the scope of library experience**  
*Quasi-Con, University of Michigan School of Information*  
+ With N Herman-Aplet, G Iverson, & P Timmons

Posters	<p><b>The blueprint as a map: Designing better data services with service blueprinting</b> <span style="float: right;">2012</span>  <i>Research Data Access &amp; Preservation Summit</i></p>
Workshops	<p><b>Engaged Scholars Series: Research Data Management</b> <span style="float: right;">2020</span>  <i>Davidson College</i></p> <ul style="list-style-type: none"> <li>+ Planned and co-taught information session and hands-on workshop for scholars, librarians, archivists, and technologists. Covered developing data management plans for grant proposals during information session focused on scholars. Hands-on workshop for librarians, archivists, and technologists covered best practices for RDM, writing data management plans for grant proposals as well as lab usage, engaging and outreach to faculty around RDM and preservation, as well as developing other data services for researchers.</li> <li>+ Co-taught and planned with W Shook.</li> </ul> <p><b>Data Carpentry: R for Social Scientists</b> <span style="float: right;">2019</span>  <i>Carnegie Mellon University</i></p> <ul style="list-style-type: none"> <li>+ Planned and co-taught workshop to diverse novice learners. Covered data organization in spreadsheets, using OpenRefine for data cleaning, and R/RStudio for data manipulation, analysis, and visualization.</li> <li>+ Co-taught and planned with I Carrol.</li> </ul> <p><b>Software Carpentry: R</b> <span style="float: right;">2019</span>  <i>Middlebury College</i></p> <ul style="list-style-type: none"> <li>+ Secured funding from multiple campus groups across the humanities, sciences, and social sciences. Organized and planned for workshop, including budgeting, outreach, and on-site facilitation. Co-taught the workshop, teaching novice learners about the bash shell, version control with git, and R/RStudio for data manipulation, analysis, and visualization.</li> <li>+ Co-taught with E White.</li> <li>+ Organized with J Kemp and W Shook.</li> </ul> <p><b>You can too! Running a successful data bootcamp for novices</b> <span style="float: right;">2017</span>  <i>IASSIST Annual Conference</i></p> <ul style="list-style-type: none"> <li>+ Participants in this workshop will learned about v 1.0 (2015) and 2.0 (2016) of a multi-day data bootcamp for novice users in the humanities and humanistic social sciences that was held at Middlebury College. This workshop covered topics such as managing, cleaning, and documenting data, as well as data visualization, mapping, and working with textual data. In addition to hearing about what worked for Middlebury, participants worked together to determine audience needs, learning objectives, and tools. Potential workshop plans that were developed focused on active learning methods and free and/or open-source tools and data to increase accessibility.</li> </ul> <p><b>Northwest Five Consortium Data Management &amp; Curation Workshop</b> <span style="float: right;">2015</span>  <i>Reed College</i></p> <ul style="list-style-type: none"> <li>+ Served as project manager, including writing a successful mini-grant proposal for funding from the Consortium, assisting with budget, organizing and leading bi-weekly planning meetings, and on-site facilitation during workshop.</li> <li>+ Co-planned with P Abbaspour, A Blau, E Gandour-Rood, M Spalti, and A Whitmire.</li> </ul>

- + Taught and facilitated by A Whitmire.
- + Faculty consultant: K Oleson.

Selected Projects

**Scholarly Computing at Middlebury Self Study & External Review** 2021 – present

Led an ad-hoc group of librarians, technologists, instructional designers, and IT staff through an assessment process, evaluating and making recommendations for our research and academic computing infrastructure, utilizing both self-study and external review. Balanced faculty and staff perceptions and needs with institutional and programmatic vision and goals. Lead the design and deployment of an institution-wide survey for faculty and staff, organized and conducted supplemental contextual interviews, and performed peer-comparison research. Coordinated with senior leadership, departmental/program leaders, and faculty/staff /students to continually gather feedback on report drafts, external review feedback, and recommendations. Co-authored and edited final internal report.

**Humanities Data Workshop Series** 2021 – 2022

Designed and taught a regular workshop series on working with data in research for humanists, at the request of Professor C Anderson, and with the assistance of C Anderson and W Shook. Worked with attendees to collaboratively decide on future workshop and discussion topics. Topics included an introduction to research data; finding, organizing, and managing research data; data visualization basics with R/RStudio; mapping basics with ArcGIS Online; and an introduction to text analysis with Voyant and R/RStudio.

**MiddLab Data Workshops** 2019 – present

A regular workshop series (typically during the early summer semester, though also held at other times) on a variety of data topics: introduction to the \*nix shell; git/GitHub; introduction to coding — data cleaning/wrangling — data visualization (with both R/RStudio and Python); using Linux at Middlebury; introduction to text analysis with R/RStudio; data management basics; creating better data visualizations; and more. Organized as a discipline- and status-agnostic workshop series open to all, utilizing pedagogical principles and (sometimes) lesson plans from The Carpentries workshops.

Professional Affiliations

**Visualizing the Future Symposia** 2019 – 2021

+ Fellow

**The Carpentries** since 2018

+ Certified instructor

**Digital Library Federation** since 2015

+ Institutional Member, active in planning, interest groups, and conferences

**International Association for Social Science Information Services & Technology** since 2014

**Inter-university Consortium for Political and Social Research** since 2014

+ Official/Designated Representative (at both Reed College and Middlebury)

**Pacific Northwest Data Curators**  
**American Library Association, Association of College & Research**  
**Libraries**

2013 - 2016

2011 - 2019