



**Perspectives on teaching
with data in
the social sciences**

Our session plan

- ◆ Project Overview
- ◆ Our 5 institutions & key takeaways
- ◆ Activity - Reflecting on data literacy education and your stakeholders
- ◆ Our top recommendations
- ◆ Activity - Next steps for you and your context
- ◆ Q&A

Slides:
bit.ly/teachdata22

Project Overview

Ithaka S+R Project

- ◆ Included 20 universities from across the United States
- ◆ Focused on supporting teaching with and about data social science contexts
- ◆ [Launching Two Projects on Supporting Data Work - Ithaka S+R](#)

Study Details

- ◆ Identified stakeholders
- ◆ Performed semi-structured interviews
- ◆ Coded interviews
- ◆ Summarized findings in individual reports
- ◆ Ithaka S+R summarized the findings from all of the universities into a report (due in March)

Carnegie Mellon University

Institutional Context

- ◆ Private 4-year university
- ◆ 14,500 undergraduate and graduate students
- ◆ R1 classification
- ◆ Heavily interdisciplinary
- ◆ Social sciences appear in a wide diversity of colleges
- ◆ Top rated program in Computer Science

Key Takeaways

- ◆ Assess data competencies of students, including foundational coding
- ◆ Develop a formal program for data literacy
- ◆ Supplement instruction for data literacy with asynchronous modules and materials from the Carpentries

George Mason University

Institutional Context

- ◆ 38,630 degree-seeking students
- ◆ 26,339 degree-seeking undergraduates
- ◆ 24% of undergrads first-generation students
- ◆ R1, 4-year public university
- ◆ Main campus located in Fairfax, VA

Key Takeaways

- ◆ Improve outreach & marketing focusing on library support for teaching with data.
- ◆ Work with campus stakeholders on data literacy initiatives.
- ◆ Address lack of basic computer skills needed to work with data.

Grand Valley State University

Institutional Context

- ◆ Comprehensive, public university
- ◆ 19,739 undergraduate and 3,027 graduate students
- ◆ 38% first-generation students
- ◆ Main campus, four area and regional campuses
- ◆ 245 social science faculty use data in instruction

Key Takeaways

- ◆ Students need basic skill building for data-heavy courses
- ◆ Peer consultation services to include data skills, especially for large-enrollment courses and non-majors
- ◆ Better integration of data literacy into curriculum needed
- ◆ Increased professional development needed

University of Richmond

Institutional Context

- ◆ Private 4-year liberal arts university (with an MBA program and Law School)
- ◆ 3,147 undergraduate students
- ◆ Social sciences faculty situated across 5 schools
- ◆ Several new data analytics/data science initiatives

Key Takeaways

- ◆ Design support for students & faculty “on the margins”
- ◆ Provide support for teaching data ethics
- ◆ Encourage better curriculum sequencing & alignment
- ◆ Design library support using a data lifecycle model

Virginia Tech

Institutional Context

- ◆ Public Land-grant
- ◆ R1, 4-year university
- ◆ Over 37,000 undergraduate and graduate students
- ◆ Programs to support First-Year Experience courses
- ◆ Pathways to General Education curriculum

Key Takeaways

- ◆ We can't assume a certain level of data literacy with our learners
- ◆ Shared needs for modular course content
- ◆ Importance of peer learning for both students and instructors
- ◆ Higher-level skills require program-level coordination

How can libraries, various types of campus support offices, and academic departments impact the future of data literacy education?

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*Who has a stake on your
campus?*

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Our top recommendations

- ◆ Create / support / promote foundational data literacy offerings for learners
- ◆ Seek out existing open source resources that you can adapt or reuse at your own institution
- ◆ Find stakeholders that are willing to partner to create, support, or promote these resources
- ◆ Look for opportunities and resources for instructor professional development in teaching with data



*Which of these recommendations may
be helpful on your campus?*

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What might you be able to do at the personal level, department level, or institutional level to better support students' development of data literacy?

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Thanks!

Any questions?

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Q&A

Top



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Teaching with Data in the Social Sciences Reports

- ◆ [Carnegie Mellon University Report](#)
- ◆ [George Mason University Report](#)
- ◆ [Grand Valley State University Report](#)
- ◆ [University of Richmond Report](#)
- ◆ [Virginia Tech Report](#)

Ithaka S+R Project Participating Institutions

- ◆ American University
- ◆ Boston University
- ◆ Carnegie Mellon University
- ◆ Florida State University
- ◆ George Mason University
- ◆ George Washington University
- ◆ Grand Valley State University
- ◆ Kansas State University
- ◆ Michigan State University
- ◆ North Carolina State University
- ◆ Purdue University
- ◆ Rice University
- ◆ University of California Santa Barbara
- ◆ University of Chicago
- ◆ University of Massachusetts-Amherst
- ◆ University of New Hampshire
- ◆ University of North Carolina at Chapel Hill
- ◆ University of Richmond
- ◆ Virginia Tech
- ◆ Washington University in St. Louis

Literature on Teaching with Data

- ◆ Bauder, J. (2021). Data literacy in academic libraries: Teaching critical thinking with numbers. Chicago : ALA Editions.
- ◆ Calzada-Prado, F. J., Marzal, M.A. (2013). Incorporating data literacy into information literacy programs: core competencies and contents. *Libri*, v. 63, issue 2, p. 123-134.
URI: <http://hdl.handle.net/10016/27173>
- ◆ Koltay, T. (2017). Data literacy for researchers and data librarians. *Journal of Librarianship and Information Science*, 49(1), 3-14.
<https://doi.org/10.1177/0961000615616450>

Resources for Teaching with Data

- ◆ PIDLit: Public Interest Data Literacy, Georgia State University, <https://pidlit.gsu.edu>
 - ◆ PIDLit Data Ready Videos:
https://www.youtube.com/playlist?list=PLONlafBQZBQkgcho3_i_mYaQYPpf2Ckzr
- ◆ ICPSR Resources for Teachers:
<https://www.icpsr.umich.edu/web/pages/instructors/teacher-resources.html>
 - ◆ Includes videos from ICPSR and selected resources for professors teaching undergraduates.
- ◆ Resources at each institution
 - ◆ DL Toolkit at Virginia Tech
 - ◆ Working with Data, George Mason University,
<https://infoguides.gmu.edu/data-work>
- ◆ Open-source lesson plans on foundational coding from the non-profit, The Carpentries
 - ◆ [Data Carpentry](#)
 - ◆ [Software Carpentries](#)

Credits

Special thanks to all the people who made and released these **awesome resources** for free:

- ◆ Presentation template by [SlidesCarnival](#)
- ◆ Photographs by [Unsplash](#)