



Fostering Communities of Practice in Data Management

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UNM

COLLEGE *of* UNIVERSITY LIBRARIES
& LEARNING SCIENCES

Workshop Series: Free & Open to All



COFFEE
&
CODE

**MONTHLY CODING WORKSHOPS
AT CENTENNIAL SCIENCE &
ENGINEERING LIBRARY**

This organization Search Pull requests Issues Marketplace Explore

unmrds

Repositories 15 People 2 Teams 0 Projects 0 Settings

Search repositories... Type: All Language: All Customize pinned repositories New

bb-security
Bits & Bites: Are My Data Safe?
Shell Updated 3 days ago

cc-containers
Coffee & Code - Containers with Docker
Jupyter Notebook Updated 25 days ago

cc-python-data-apis
Coffee and Code workshop focusing on interacting with data APIs with Python
Apache-2.0 Updated 26 days ago

bb-ownership
Bits and Bites - Who Owns Your Data?
Updated on Feb 23

cc-jupyter
Coffee and Code - Jupyter Notebooks
Jupyter Notebook Apache-2.0 Updated on Feb 23

cc-database-basics

Top languages

- Jupyter Notebook
- Shell
- JavaScript
- HTML

People 2

jonathanwheeler01 Jonathan Wheeler

karlbenedict Karl Benedict

Invite someone

<https://github.com/unmrds/>

Workshop Topics to Date

↗ Fall 2017 Series:

- ↗ August 11 - Working with the Command Line
- ↗ September 8 - Programming Concepts Demonstrated with Python
- ↗ October 13 - Jupyter Notebooks for Data Analysis and Visualization
- ↗ November 10 - Write Once and Use Everywhere with Markdown and Pandoc
- ↗ December 8 - Version Control with Git, GitHub and LoboGit

↗ Spring 2018 Series:

- ↗ February 9 - Database Basics
- ↗ March 9 - Containerization with Docker
- ↗ April 20 - Qualitative Analysis with NVIVO (Guest Presenter)
- ↗ May 11 - Interacting with Data APIs Using Python (Guest Presenter)



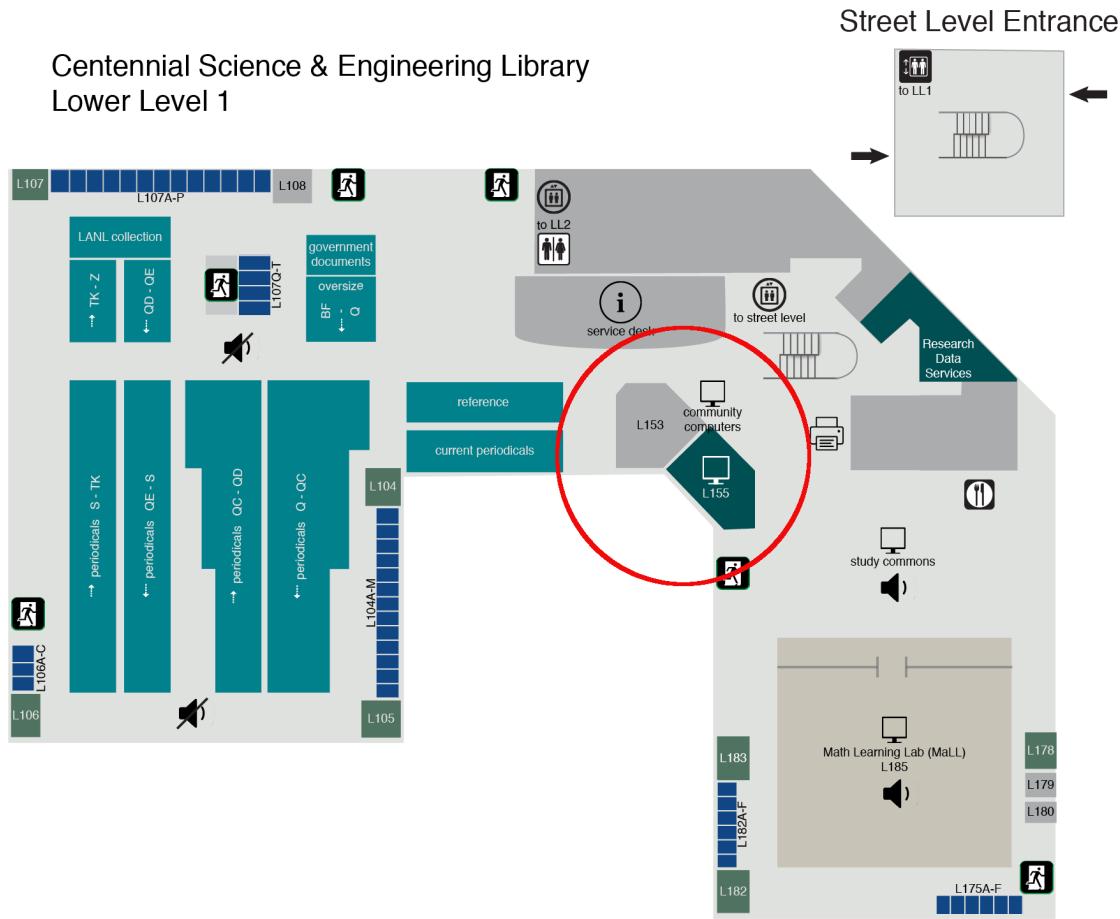
Drivers

Motivators: Models & Positioning

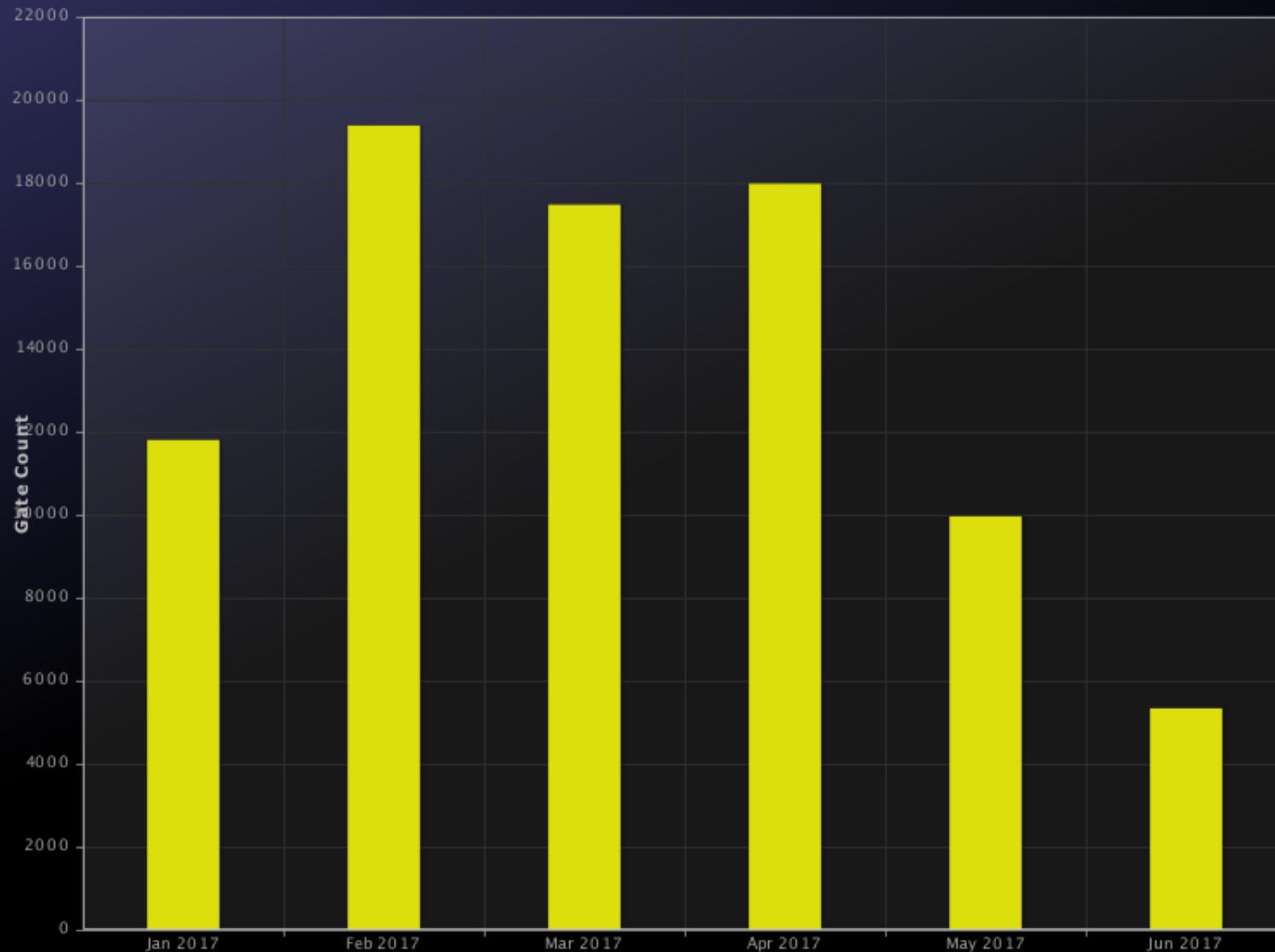
	Carpentries	Data Management Curricula	Librarian Skill & Professional Development
Programs	Software Carpentry Data Carpentry Library Carpentry	DataONE Education New England Collaborative Data Management Curriculum Research Data MANTRA	MANTRA DIY Research Data Management Training Kit for Librarians
Example Concepts & Skills	Tabular data management & analysis (OpenRefine, SQL, R) Version control Programming	Data management plans & planning Metadata & data documentation Spreadsheet best practices Data security File management	Research data management concepts Data archiving & preservation Data literacy

Motivators: Space & Culture

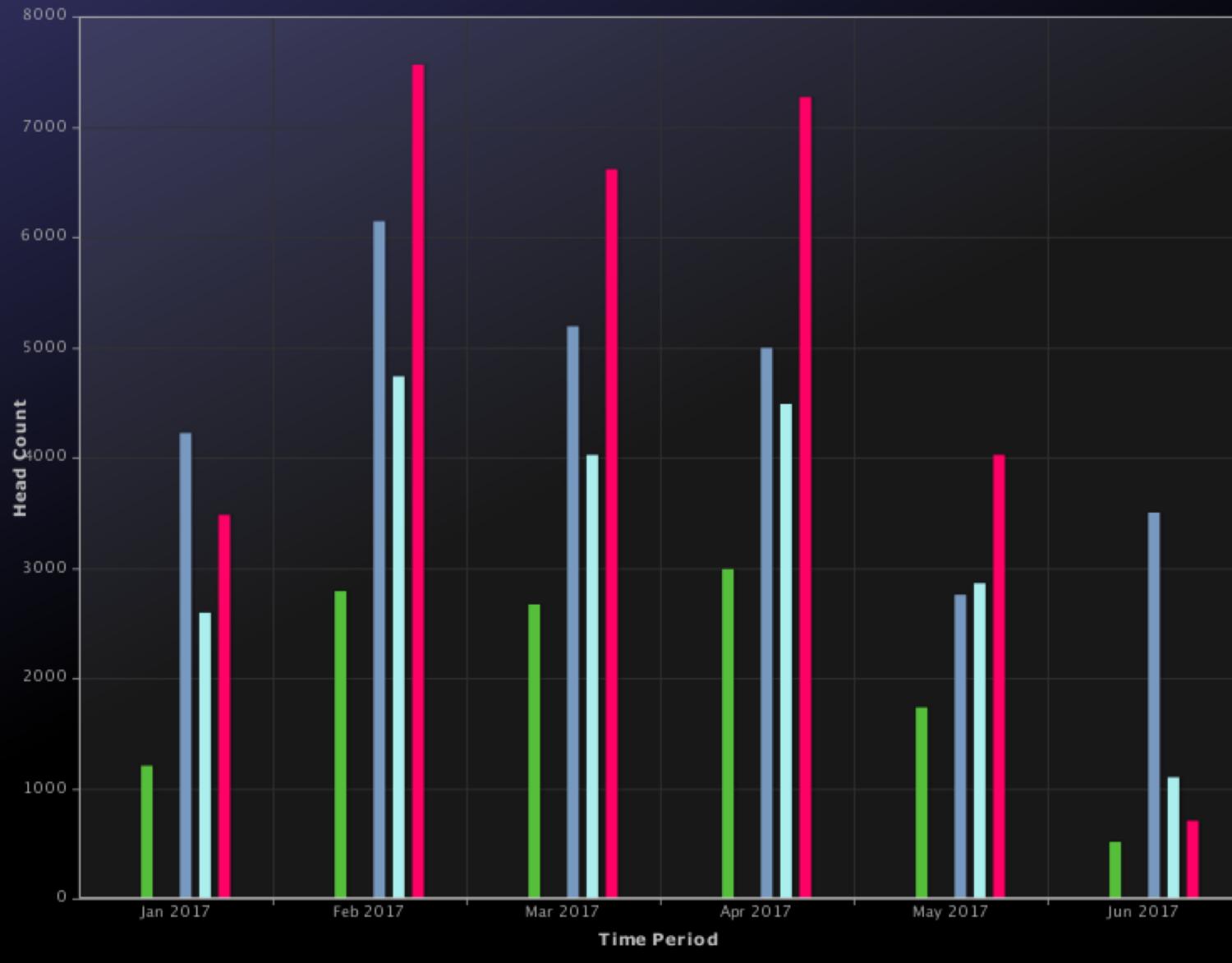
Centennial Science & Engineering Library
Lower Level 1



CSEL Gate Count by Month for 01/01/2017 to 06/30/2017



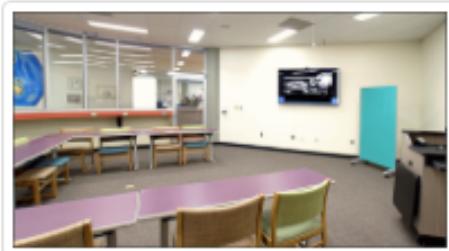
CSEL Head Count by Month for 01/01/2017 to 06/30/2017



■ Lower Level 1 ■ Lower Level 2 ■ MAGIC ■ LL1 Mall ■ LL1 near MaLL ■ LL1 near Journals

Motivators: Space & Culture

DEN 2 Capacity: 16 X



Description

Room resources include:

- HTC Vive virtual reality workstation
- 4K flat screen (75") and ceiling speakers
- Podium with:
 - PC desktop
 - Mac mini
 - Cables to connect a laptop
- Apple TV
- Switching capabilities between the various devices on the display screen
- 4K video recorder (Sony FDR-AX53)
- Webcam and 2 room microphones

WiFi hub located in this room for better connectivity to Lobo WiFi

Directions

[Floor map of the Centennial Science and Engineering Library](#)

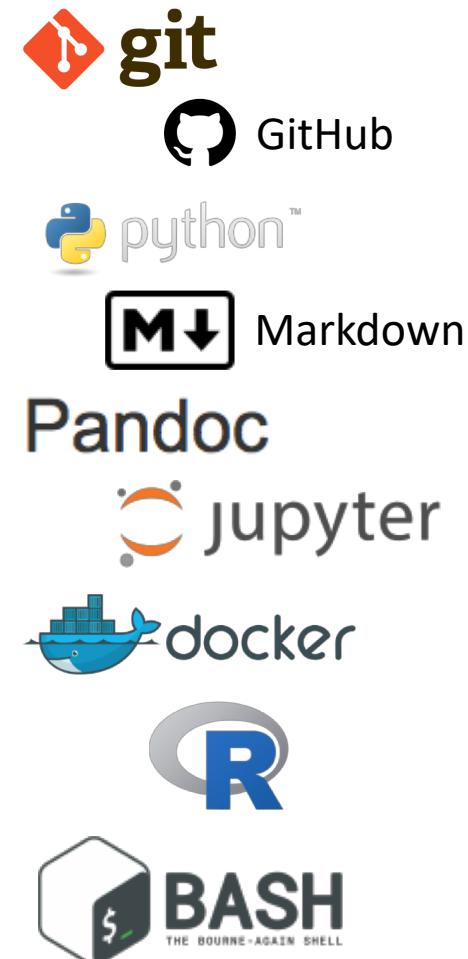
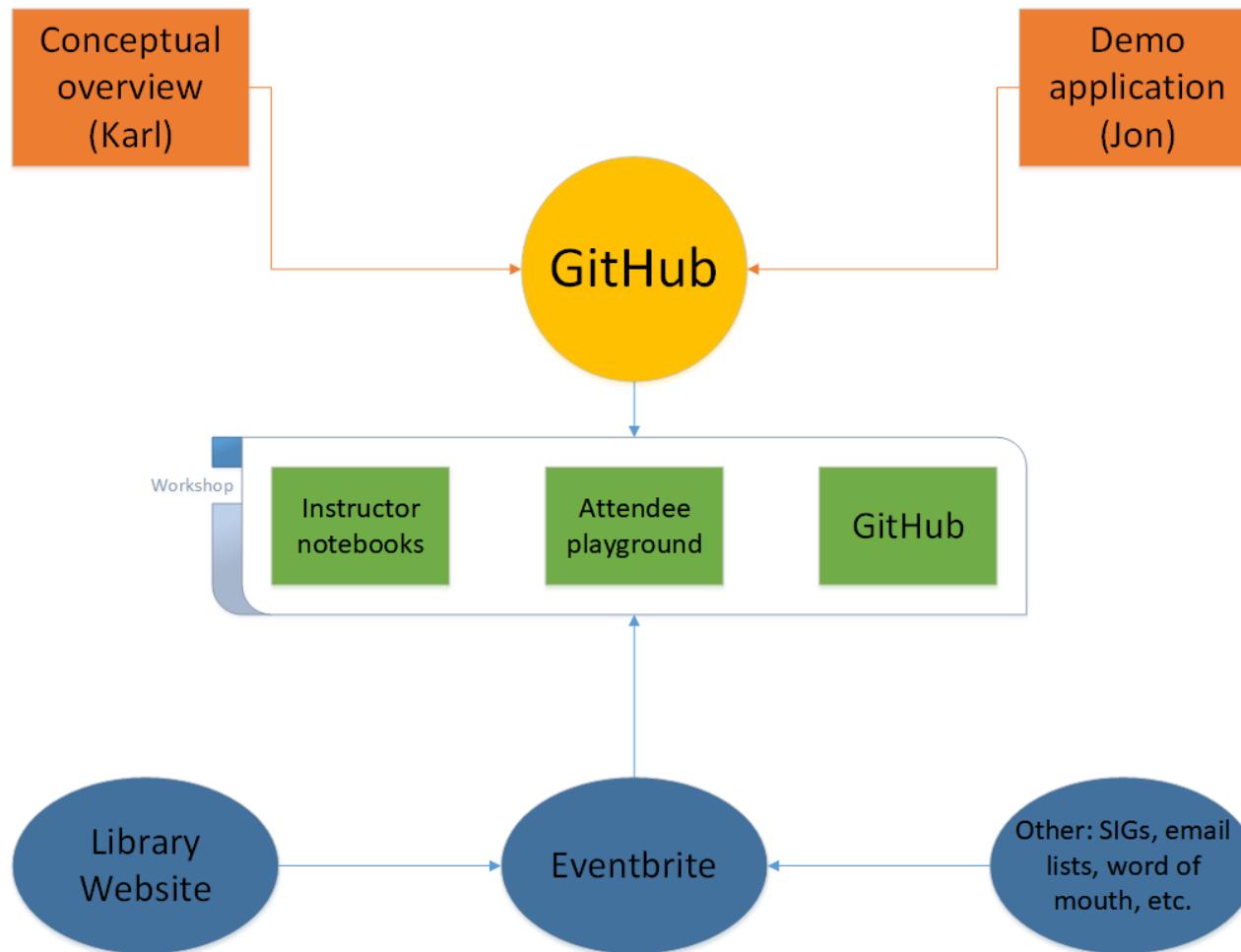
The DEN 2 is labelled as room L153 on the map.

If you need further assistance finding the room ask at the Service Desk.



Session Planning & Architecture

Anatomy of a Session



Instruction Platform

Instruction Platform



R Studio®



Shared Storage



R Studio®



Shared Storage



<https://github.com/unmrds/cc-content-platform>



Compose



Engine



Host Operating System



Outcomes & Lessons Learned

Managing a Monthly Series in Practice

PROS	CONS
Interest grows over time	Registration doesn't guarantee attendance
Word of mouth supplements other communication strategies	Seating and space limitations require limiting registrations: "Sold out" doesn't necessarily mean a full house
Engaged, returning participants promotes collaborative session and series development	Adapting content to participant skill levels and use cases can be a challenge
Broad community participation and outreach opportunities	Program development versus research

Growing a Community of Practice

- ↗ Broad range of participants
 - ↗ High school students
 - ↗ Undergraduate and graduate students
 - ↗ UNM research faculty and staff
 - ↗ UNM IT staff and interest groups
 - ↗ Research support office
 - ↗ Library colleagues
- ↗ Many use cases
 - ↗ Departmental and University IT version control
 - ↗ Text and qualitative analysis
 - ↗ Data documentation, sharing, and archiving
 - ↗ Research compliance
 - ↗ Replicability and reproducibility
- ↗ Grassroots advocacy for lifecycle oriented research data management

Growing Content Collection

Developed

- ↗ Introductory Sessions
 - ↗ Command Line Basics
 - ↗ Introduction to Programming Concepts with Python
 - ↗ Document Production with Markdown and Pandoc
 - ↗ Version Control with Git and GitHub
 - ↗ Database Basics
 - ↗ Jupyter Notebooks
 - ↗ Containerization with Docker
 - ↗ Qualitative Analysis with NVIVO (collaborator – scheduled)
- ↗ Intermediate Sessions
 - ↗ Interaction with Data APIs Using Python (collaborator – scheduled)

Planned/Envisioned

- ↗ Introductory Sessions
 - ↗ Introduction to R, RStudio, and R in Jupyter Notebooks
 - ↗ OpenRefine for Data Cleaning and Restructuring
 - ↗ Geospatial Data Management, Analysis, and Visualization with Open Source GIS (QGIS)
- ↗ Intermediate Sessions
 - ↗ Managing and Analyzing Tabular Data in Python Using Pandas and Other Tools

<https://github.com/unmrds>



Follow-on Activities



bits & bites

**MONTHLY DATA MANAGEMENT DISCUSSIONS AT
CENTENNIAL SCIENCE & ENGINEERING LIBRARY**



iStockPhoto

Next Steps





Expanding our Network of "Guest" Presenters



<https://www.flickr.com/photos/87328375@N06/> CC-BY 2.0 <https://flic.kr/p/dm1oxr>



Diving More Deeply





Collaborative Development of Current and New Content





iStockPhoto



Questions & Discussion

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