Data Science Support and Services at NCSU Libraries

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NCSU Data Science Initiative
Winter Symposium

February 5, 2016
Research spaces

DH Hill Library

James B. Hunt Jr. Library

DH Hill Library
Collaboration spaces: Low to medium tech
Collaboration spaces: High tech
Large scale display walls
Immersive visualization spaces
Gaming lab
Makerspaces and IoT

Use in the library

- Arduino Yun
- Particle Internet Button
- Particle Photon Development Kit
- Particle Photon Maker Kit
- Raspberry Pi Camera
- WiFi Shield (ESP8266)

Available to borrow

- Arduino Inventor Kit
- Intel Galileo Kit
- LightBlue Bean
- Raspberry Pi
Research support services

- **Collections**
  Tripsaver, Special Collections, Digital Repository

- **Citation Management**
  RefWorks, Zotero, Mendeley, EndNote

- **Data and GIS**
  Finding geospatial and numeric data, GIS software assistance

- **Grants and Funding**
  Opportunities, proposal writing, sponsored research compliance

- **Data Management**
  DMP review, sharing & discovery, best practices

- **Publishing and Copyright**
  Copyright agreements, Open Access, fair use

- **Visualization**
  High-tech spaces, video walls, data visualization

- **Measuring Research Impact**
  Citation analysis, author networks and metrics, benchmarking
GEOSPATIAL DATA SERVICES

• Find and get data
• Software support
• Project consultations
• Workshops & class instruction
• ArcGIS Online support
• ESRI Virtual Campus (online training)
Visualization

A good data visualization can expose new patterns and relationships in your data and help you communicate about it more clearly. We can help you:

> use visualization spaces and technologies
> use GIS and online mapping software
> learn how to create more effective data visualizations
> visualize research impact

Visualization Spaces

The Libraries provides spaces and technologies for high-resolution, immersive, 3D, and interactive displays of research data. We provide boilerplate facilities descriptions for inclusion in grant proposals. Contact us for more information and assistance.

Outreach and Engagement

Use the Libraries' video walls, high-tech visualization spaces, and events to present your research and engage with the NC State community.

> Video Walls
> Coffee & Viz
> Code+Art

EVENTS

FEB 12 Transforming "Big Data" into "Big Art": a two-part seminar with Astrophysicist Henry "Trae" Winter and Engineer Peter Cheimets

APR 14 Code+Art Awards Ceremony and Reception

WORKSHOPS

FEB 3 Making Network Graphs
3:00 PM to 4:00 PM

FEB 5 Web Mapping with CartoDB
11:00 AM to 12:00 PM

FEB 10 Getting Started with Data Visualization: Tools for Research!
3:00 PM to 4:00 PM

FEB 12 Code+Art Hackathon with Processing and Arduino
9:00 AM to 1:00 PM

View all workshops
VISUALIZATION TRAINING AND WORKSHOPS

Data Visualization Workshops

Make your own visualizations with our new data visualization workshops. Our workshops cover tools, techniques and provide hands-on activities. No experience required! All workshops take place at the D. H. Hill Library Multimedia Seminar Center.

Register at: go.ncsu.edu/dataviz

Getting Started with Data Visualization: Tools for Research
- Friday, January 15: 11 a.m. – 12 p.m.
- Wednesday, February 10: 3 p.m. – 4 p.m.
- Friday, February 26: 11 a.m. – 12 p.m.

Visualize Your Data with Tableau
- Wednesday, January 27: 3 p.m. – 4 p.m.
- Friday, February 12: 11 a.m. – 12 p.m.

Data Cleaning and Analysis Tips and Tools: Microsoft Excel and Open Refine
- Friday, January 29: 11 a.m. – 12 p.m.
- Wednesday, February 17: 3 p.m. – 4 p.m.

Making Network Graphs
- Wednesday, February 3: 3 p.m. – 4 p.m.
- Friday, February 19: 11 a.m. – 12 p.m.

Web Mapping with CartoDB
- Friday, February 5: 11 a.m. – 12 p.m.
- Wednesday, February 24: 3 p.m. – 4 p.m.
Distributed visualization spaces
Building visualization community

Coffee and Viz Seminar Series
May 2016

Data Exploration and Statistical Analysis

Bibliometric Analysis

Data Visualization

Version Control with Git and GitHub

Data Description, Sharing, and Reuse

Data Cleaning and Preparation

Publisher and Funder Data Use Agreements

Gathering and Analyzing Textual and Multimedia
RESEARCH DATA MANAGEMENT SERVICES AND SUPPORT

- Data Management Planning Guide
- DMPTool
- DMP Review service
- Workshops
- Data repository guidance
- Metadata consultation
- Copyright & IP guidance
- NIH Public Access Compliance

[link](http://www.lib.ncsu.edu/guides/datamanagement/)
DATA MANAGEMENT PLAN REVIEW

Advise on:

• Data types
• Standards
• Storage
• Preservation
• Sharing & access
• Re-use
• Responsibilities
Questions?

Contact:

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http://www.lib.ncsu.edu/services/research-support