

# Data Science Support and Services at NCSU Libraries

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*NCSU Data Science Initiative  
Winter Symposium*

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# Research spaces



DH Hill Library

James B. Hunt Jr. 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

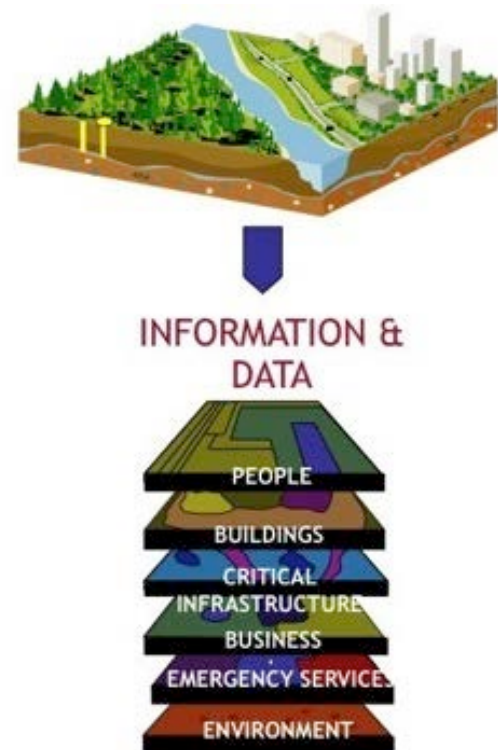


## Measuring Research Impact


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 SERVICES


**NCSU LIBRARIES**


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## NEED HELP?


[Ask a question or request a consultation](#)




Alison Blaine




Karen Ciccone




Jeff Essic



Jason Evans Groth



Walt Gurley



Mike Nutt

## 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**
**FEB**  
**12**



# 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](https://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





## DATA AND VISUALIZATION INSTITUTE FOR LIBRARIANS

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

<http://www.lib.ncsu.edu/guides/datamanagement/>

# DATA MANAGEMENT PLAN REVIEW

## Advise on:

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



The screenshot shows the NCSU Libraries website. The header is red with the NCSU Libraries logo and navigation links: FIND, GET HELP, SERVICES, LIBRARIES, ABOUT, and a search bar. The main content area is white and titled "Data Management Planning Review Support". It includes a section "How We Can Help:" with a paragraph about the library's guidance, and a section "Getting Started:" with a paragraph and a bulleted list of steps.

**NCSU LIBRARIES** ASK US | MY ACCOUNT

FIND GET HELP SERVICES LIBRARIES ABOUT Search books, articles, and more

## Data Management Planning Review Support

### How We Can Help:

The NCSU Libraries provides free guidance to NC State faculty, staff, and students on creating and implementing data management plans. This includes reviewing and providing advice on documenting data types, standards for data description, short-term storage, long-term storage, data preservation, data sharing, data re-use and re-distribution, and defining responsibilities for carrying out the data management plan.

### Getting Started:

As a starting point, visit the [NCSU Data Management Planning guide](#) (includes examples of data management plans).

- Review the [main components](#) of a data management plan.
- Check what your [funding source](#) expects to see in your data management plan.
- Draft a data management plan on your own or use the [DMPTool framework](#) to create a downloadable plan.
- Send us your draft to review at least 1 week in advance of when you need feedback (2 weeks is ideal).



# Questions?

## Contact:

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

