

Supporting Research Data: A Collaborative Library Approach



ANNA CRAFT
METADATA
CATALOGER



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DATA SERVICES
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THE UNIVERSITY OF NORTH CAROLINA AT GREENSBORO

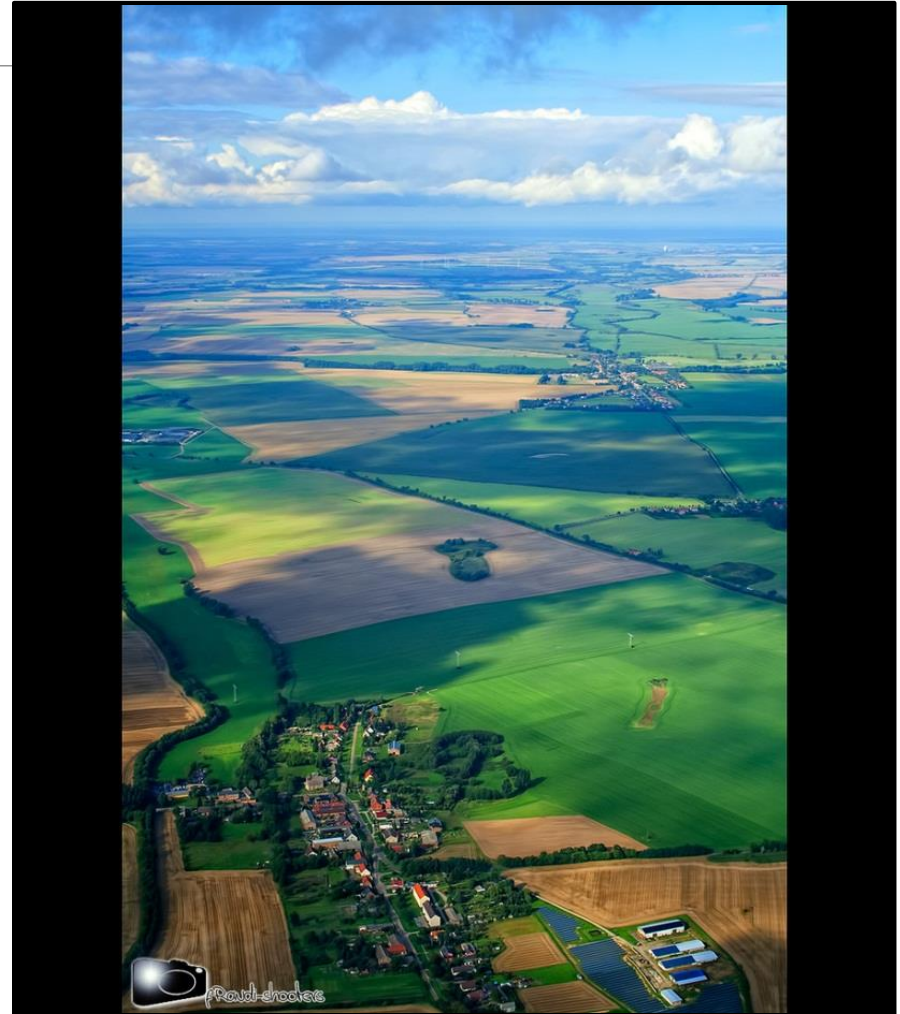
Questions:

- How many of you work in institutions that are currently providing research data management (RDM) support services for users?
- Is RDM support a cross-departmental effort in your institution, or is it centralized?



Overview

- UNCG and the University Libraries
- UNCG's research data support service model
- Outreach efforts
- Institutional repository/Dataverse integration
- Challenges, value, future directions



UNC Greensboro

- Public, four-year research university
- One of seventeen campuses in the UNC System
- FTE is 19,000 students



UNCG University Libraries

Collections:

- 2.8 million items (books, govdocs, and microforms)
- 42,666 electronic journals
- 250+ electronic databases

Collection strengths:

- Local and regional history
- Music/performing arts
- University history
- Women's history

Staff:

- Approximately 90 FTE
- 30 tenured or tenure-track faculty



We build things



UNCG BORN-DIGITAL RECORDS MANAGEMENT



WT Cox Subscriptions Acquires Journal Finder From UNCG

WT Cox Subscriptions (www.wtcox.com) has entered into an agreement to purchase Journal Finder from The University of North Carolina Greensboro (UNCG; <http://journalfinder.uncg.edu/uncg>). Journal Finder, the first OpenURL Link Resolver to go into production in the U.S., gives library patrons easy access to the electronic resources to which a library subscribes. Journal Finder was created and designed and has been maintained by the Electronic Resources and Information Technology staff of UNCG.

Why research data management? And why the libraries?

- The Libraries are already in the business of preserving, providing access, and supporting faculty research.
- Pre-existing data discovery support.
- Culture of support for open access, desire to extend those offerings.
- Funder requirements (NSF, NIH, and other granting agencies).
- Demonstrated need on campus.
 - Survey results
 - Requests from faculty



UNCG
University Libraries

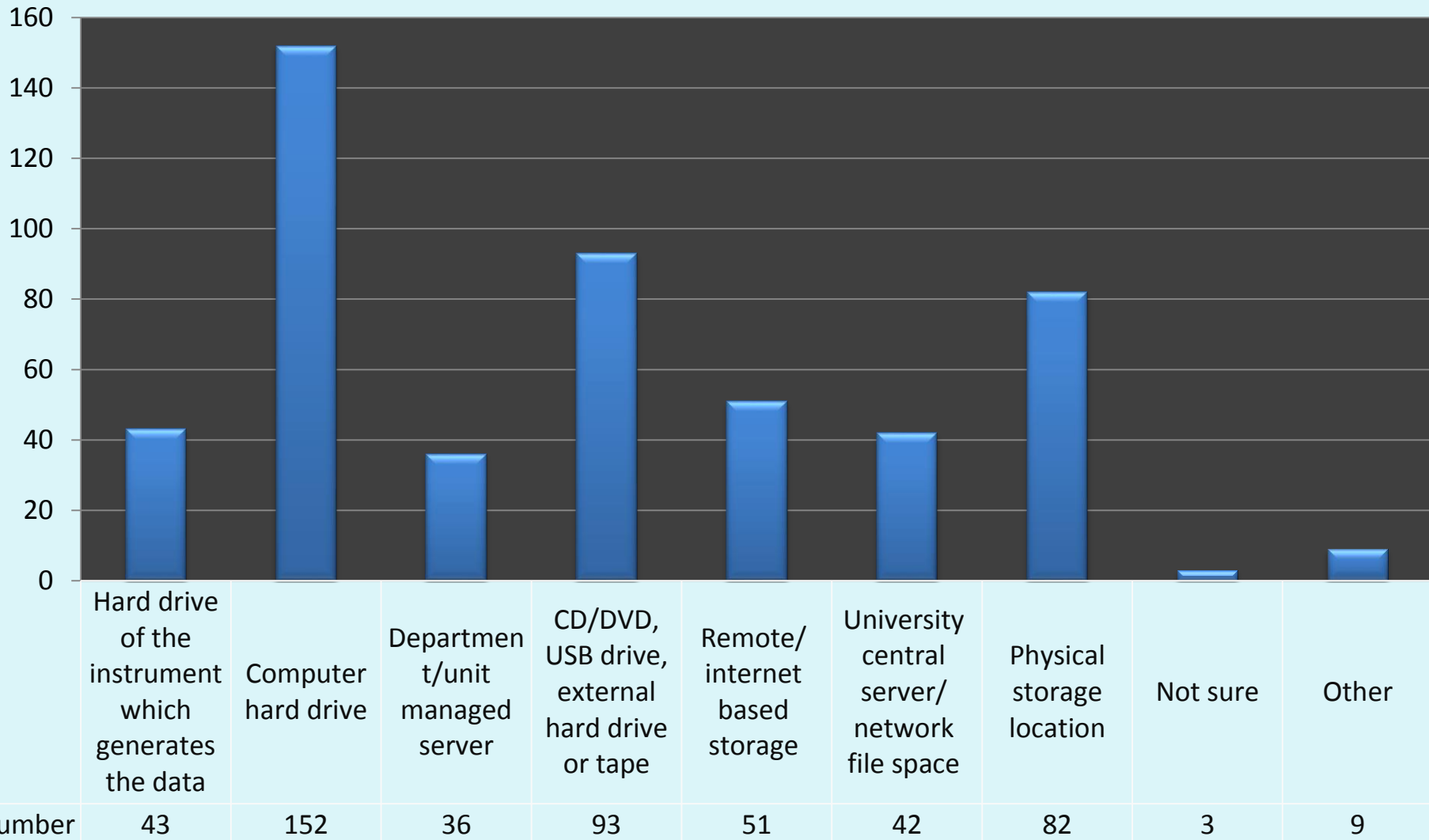
Secondary data discovery

- New Data Services & Government Information Librarian position created in 2007.
- Focus on supporting data discovery primarily for government data, data archives, and subscription sources.



U.S. Census Bureau

Locations for Storing Data



From UNCG Faculty Research Data Support Needs Survey report,
October 2013

We're part of a bigger picture

Other partners in campus research data management services:

- Office of Sponsored Programs
- Information Technology Services
- Departmental programs
 - School of Health and Human Sciences
 - School of Nursing



UNCG

What do we do?

- Educate about data and data management best practices.
- Assist in the creation of data management plans.
- Provide an option for sharing and archiving data (NC DOCKS/ Odum Institute partnership).
- Connect researchers to other (non-library) services.

[University Libraries](#) / [Research Guides](#) / [Data Services: Research Data Management](#) / [Home](#)

Data Services: Research Data Management: Home

Guide to assist with the research data management process

[Home](#)

[Why Data Management?](#)

[Creating a data management plan](#)

[Data storage](#)

[Sharing & archiving your data](#)

[Finding Data](#)

<http://uncg.libguides.com/RDM>

Library roles

Research, Outreach,
and Instruction

Technical
Services

Research Data Support

Electronic Resources and Information Technology

Research, Outreach, and Instruction (ROI)

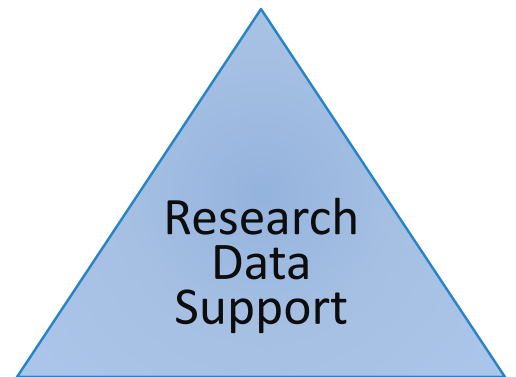
- Serves as connection to the faculty and research offices regarding data needs.
- Provides training to graduate students and faculty on RDM best practices.
- Provides assistance with data management plans or archiving options as requested.
- Works within the liaison team structure to support researchers in every discipline.



Research
Data
Support

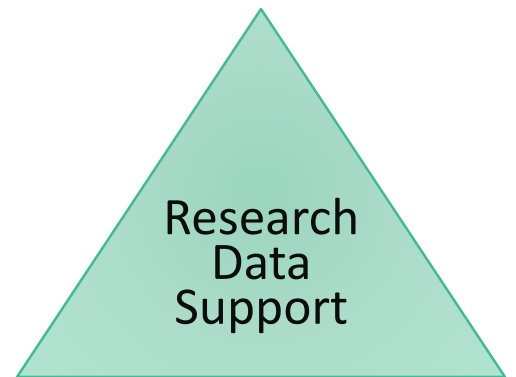
Technical Services

- Sets metadata policies and creates documentation.
- Manages item and metadata loading in NC DOCKS (IR) and Dataverse.
- Provides assistance with research data questions.
- Targeted outreach to faculty.
- Training, training, training.



Electronic Resources and Information Technology (ERIT)

- Manages NC DOCKS server, develops and supports NC DOCKS product.
- Consults on requests involving local technology support.



Whom do we support?

Students, faculty, and staff.



Whom do we support?

Institutional partners



Research data management task force

- Personnel:
 - Associate Dean for Public Services
 - Assistant Dean for Electronic Resources and Information Technology
 - Health Sciences Reference Librarian
 - Science Liaison Librarian
 - Data Services and Government Information Librarian
 - Metadata Cataloger
- Develop a plan for supporting RDM in the library

Targeted outreach

- Open Access Policy initiative
- Departmental meetings
- Outreach to research offices, Research Advisory Council, and Office of Research Integrity
- Research data management best practices workshops
- “Responsible Conduct of Research: Taking the High Road to Better Data” presentation series

Open access policy initiative

Open Access:
Sharing your scholarship



What about research data?

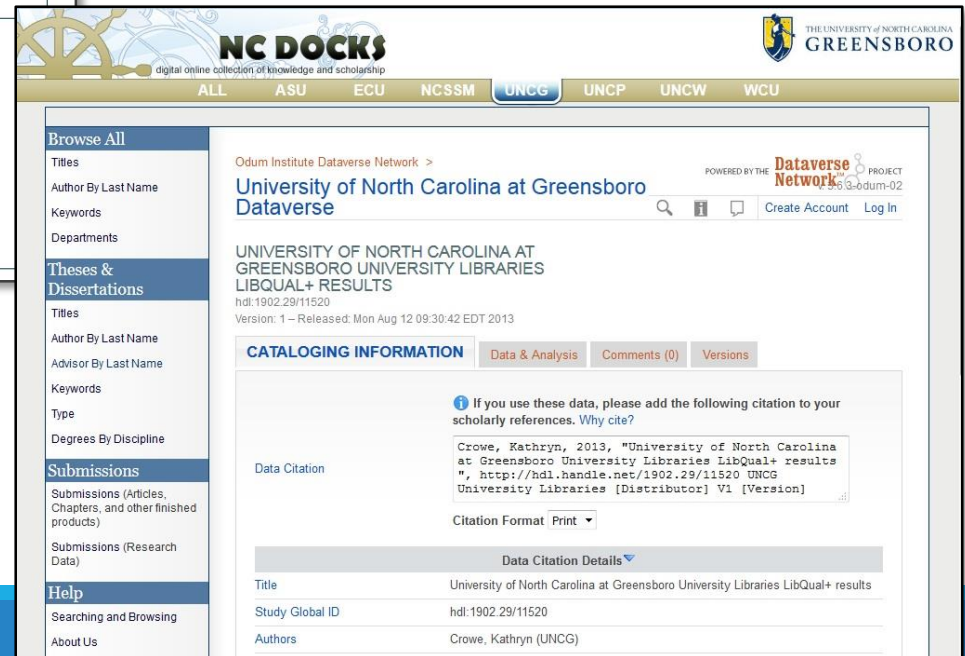
- Data management planning resources
- Research data hosting (through a partnership with the Odum Dataverse at UNC Chapel Hill)
- There are other options - just ask to learn more!



Outreach to campus departments and research groups



The screenshot shows the NC DOCKS website home page. At the top, there is a navigation bar with tabs for ALL, ASU, ECU, UNCA, UNCC, UNCG (selected), UNCP, UNCW, and WCU. The main content area features a search bar with a dropdown menu set to UNCG and a Search button. Below the search bar, there are two columns of featured items. The left column, titled "Most recent additions", lists several articles with their titles and authors, such as "Early college puts youth on a college track" by Edmunds, Julie (2016). The right column, titled "Featured Item", highlights a "Memory Collection" by Hinson, Dustin, a Studio Art piece from UNCG, with a link to view more.



The screenshot shows the NC DOCKS website item page for a specific dataset. The navigation bar is similar to the home page but includes NCSSM. The page title is "University of North Carolina at Greensboro Dataverse". Below the title, there is a search bar and icons for social media and account creation. The main content area displays the title "UNIVERSITY OF NORTH CAROLINA AT GREENSBORO UNIVERSITY LIBRARIES LIBQUAL+ RESULTS" and the DOI "hdl:1902.29/11520". A "CATALOGING INFORMATION" section is visible, with tabs for "Data & Analysis", "Comments (0)", and "Versions". A callout box provides a citation example: "Crowe, Kathryn, 2013, 'University of North Carolina at Greensboro University Libraries LibQual+ results', http://hdl.handle.net/1902.29/11520 UNCG University Libraries [Distributor] V1 [Version]". Below this, there is a "Data Citation Details" section with a table listing the title, study global ID, and authors.

Data Citation Details	
Title	University of North Carolina at Greensboro University Libraries LibQual+ results
Study Global ID	hdl:1902.29/11520
Authors	Crowe, Kathryn (UNCG)

RDM workshops



Research Data @ UNCG Univ. Libraries

Lynda Kellam, Data Services Librarian, lmkellam@uncg.edu

“Responsible Conduct of Research”

The image is a screenshot of a website titled "RESEARCH INTEGRITY". The page has a dark blue header with the title in white. Below the header is a navigation menu with five items: HOME, ABOUT, RESPONSIBLE CONDUCT OF RESEARCH (RCR), TRAINING, and REVIEW. The "RESPONSIBLE CONDUCT OF RESEARCH (RCR)" item is highlighted. The main content area has a white background with a dark blue section header "RESPONSIBLE CONDUCT OF RESEARCH". Below this is a paragraph of text defining RCR, followed by a list of RCR topics and a final paragraph about the UNCG Office of Research Integrity (ORI).

RESEARCH INTEGRITY

HOME ABOUT RESPONSIBLE CONDUCT OF RESEARCH (RCR) TRAINING REVIEW

RESPONSIBLE CONDUCT OF RESEARCH

Responsible Conduct of Research (RCR) involves shared responsibility for the responsible conduct of research among the institutional administration, the research oversight committees and the researchers. An effective RCR program includes comprehensive institutional policies and procedures for the conduct and review of research, coordination of all units (administrative offices, oversight committees, etc.) that impact the responsible conduct of research, systematic education programs in RCR and systematic quality assurance/quality improvement activities.

Responsible conduct of research (RCR) includes:

- Conflict of interest (personal, professional, financial)
- Policies regarding human subjects, live vertebrate animal subjects in research, and safe laboratory practices
- Mentor/mentee responsibilities and relationships
- Collaborative research, including collaborations with industry
- Peer review
- Data acquisition and laboratory tools; management, sharing and ownership
- Research misconduct and policies for handling misconduct
- Responsible authorship and publication
- The scientist as a responsible member of society, contemporary ethical issues in biomedical research, and the environmental and societal impacts of scientific research

The UNCG Office of Research Integrity (ORI) offers training to meet the regulatory requirements of both the National Institutes of Health and the National Science Foundation. Additionally, this program meets the institutional goal of developing a university-wide approach to meeting the ethical standards that it was founded upon.

Types of requests

- Informational – **“How can you help me?”**
 - What services do you provide in this area?
 - Will you look at my data management plan?
 - What repository should I use?
- Technical support – **“This isn’t working.”**
 - Why won’t Dataverse load my data set?
 - Why isn’t this file type displaying?
- Training – **“I need help doing this.”**
 - How do I write a data management plan?
 - How do I get my data into Dataverse?

Questions we ask: DMP creation stage

- What type of data will be produced?
- What standards will be used for documentation and metadata?
- What steps will be taken to protect privacy, security, confidentiality, intellectual property, or other rights?
- If you allow others to reuse your data, how will the data be accessed and shared?
- How will the data be archived for preservation and long-term access?

<http://tinyurl.com/UNCG-RDM>

A note on DMPs

- RDM LibGuide offers general DMP information and tips
- We offer access to DMPTool, but we are not a partner, so we don't offer templates for researchers
- No formal requirement for researchers to bring DMPs to the library

<http://uncg.libguides.com/RDM/CreateDMP>

Questions we ask:

Researchers who already have data

- What field is the researcher working in?
- What format is the data in?
- What is the size of the dataset?
- Is there existing metadata? Is there a codebook?
- Are there privacy concerns with the data, such as PII?

UNCG's research data partnership



NC DOCKS at a glance

- Open access
- Home-grown system
- Collaborative partnership bringing together eight UNC system schools
- Faculty, staff, and student works
- Articles, presentation slides, ETDs, audiovisual materials, and more
- Discovery via Google





ALL

ASU

ECU

NCCU

UNCA

UNCC

UNCG

UNCP

UNCW

WCU

Browse All

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Keywords

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Keywords

Type

Degrees By Discipline

Submissions

Faculty Submissions

Student Submissions

Research Data

NC DOCKS

Search Repository

UNCG ▾

:: Most recent additions

[Behavioral and psychological involvement of online video gamers: Building blocks or building walls to socialization?](#) by [Hickerson, Benjamin](#) (2013)

[Subtalar Pronation Does Not Influence Impact Forces or Rate of Loading During a Single-Leg Landing](#) by [Shultz, Sandra J.](#) (2003)

[Balance Recovers Within 20 Minutes After Exertion as Measured by the Balance Error Scoring System](#) by [Shultz, Sandra J.](#) (2004)

[Functional Fatigue Decreases 3-Dimensional Multijoint Position Reproduction Acuity in the Overhead-Throwing Athlete](#) by [Shultz, Sandra J.](#) (2004)

[Effects of Pronated and Supinated Foot Postures on Static and Dynamic Postural Stability](#) by [Shultz, Sandra J.](#) (2005)

[Triple-Hop Distance as a Valid Predictor of Lower Limb Strength and Power](#) by [Schmitz, Randy J.](#) and [Shultz, Sandra J.](#) (2008)

[Mechanisms of Noncontact Anterior Cruciate Ligament Injury](#) by [Shultz, Sandra J.](#) (2008)

[Evaluating the Effectiveness of Corporate Sponsorships at a Minor League Baseball Park](#) by [Hickerson, Benjamin](#) (2013)

[Competitive Target Advertising and Consumer Data Sharing](#) by [Zhao, Xia](#) (2012)

[Opportunities for youth physical activity promotion: An](#)

:: Featured Item

Innovative Research Exploring the Effects of Physical Activity and Genetics on Cognitive Performance in Community-Based Older Adults

[Henrich, Vincent](#)

Professor

Biology

UNCG

Physical activity is predictive of better cognitive performance and lower risk of Alzheimer's disease (AD). The apolipoprotein E gene (APOE) is a susceptibility gene for AD with the e4 allele being as... [View More](#)

Metadata for NC DOCKS

- Metadata entry is handled in Technical Services
- Harvested by the WorldCat Digital Collection Gateway
- MARC XML export option
- OAI-PMH



Please select an administrative function below.



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Author By Last Name

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Keywords

Type

Degrees By Discipline

Submissions

Faculty Submissions

Student Submissions

Research Data

Fossil GPS

UNCG Author/Contributor (non-UNCG co-authors, if there are any, appear on document)

[Robert Anemone](#), Professor and Department Head (Creator)

Institution

[The University of North Carolina at Greensboro \(UNCG\)](#)

Web Site: <http://library.uncg.edu/>

Abstract: The article focuses on paleontology and discusses how luck has played a big role in many of the world's great fossil discoveries. It also discusses a new technique that improves the odds of finding ancient bones. It reports on the use of modern computer models that look for hidden patterns in satellite images and generate maps of fossils sites, helping fossil hunters narrow their search.

[Fossil GPS](#)



PDF (Portable Document Format)

36 KB

Created on 5/5/2015

Views: 12

Additional Information

Publication

Scientific American, 310(5), 46-51

Language: English

Date: 2014

Keywords

[Paleontology](#), [Computer simulation](#), [Remote-sensing images](#), [Fossils](#), [Paleoarchaeology](#)

Browse All

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Advisor By Last Name

Keywords

Type

Degrees By Discipline

Submissions

Faculty Submissions

Student Submissions

Research Data

University of North Carolina at Greensboro University Libraries LibQual+ results

UNCG Author/Contributor (non-UNCG co-authors, if there are any, appear on document)

[Kathryn Crowe](#), Associate Dean for Public Services (Creator)

Institution

[The University of North Carolina at Greensboro \(UNCG\)](#)

Web Site: <http://library.uncg.edu/>

Abstract: This LibQual+ library survey data was collected by the Association of Research Libraries (ARL) for the University Libraries at the University of North Carolina at Greensboro. Survey respondents were students, faculty, and staff at the University of North Carolina at Greensboro. This data was collected from October 15, 2012 to November 10, 2012. This data set and its associated documentation are available for download. To view and download the file, follow the link below and choose the "Data & Analysis" tab.

Link to data and documentation

<http://hdl.handle.net/1902.29/11520>

Additional Information

Publication

Language: English

Date: 2013

Keywords

[Library surveys](#), [Library assessment](#), [gap analysis surveys](#), [Library service quality](#), [Academic library assessment](#)

This item requires:

Browse All

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Theses & Dissertations

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- Keywords
- Type
- Degrees By Discipline

Submissions

- Submissions (Articles, Chapters, and other finished products)
- Submissions (Research Data)

Help

- Searching and Browsing

Odum Institute Dataverse Network >

University of North Carolina at Greensboro Dataverse

POWERED BY THE **Dataverse Network**™ PROJECT v. 3.6.2

   [Create Account](#) [Log In](#)

UNIVERSITY OF NORTH CAROLINA AT GREENSBORO UNIVERSITY LIBRARIES LIBQUAL+ RESULTS

hdl:1902.29/11520

Version: 1 – Released: Mon Aug 12 09:30:42 GMT-05:00 2013

CATALOGING INFORMATION

[Data & Analysis](#)

[Comments \(0\)](#)

[Versions](#)

i If you use these data, please add the following citation to your scholarly references. [Why cite?](#)

Data Citation

Crowe, Kathryn, 2013, "University of North Carolina at Greensboro University Libraries LibQual+ results", <http://hdl.handle.net/1902.29/11520> UNCG University Libraries [Distributor] V1 [Version]

Citation Format ▾

Data Citation Details ▾

Title	University of North Carolina at Greensboro University Libraries LibQual+ results
Study Global ID	hdl:1902.29/11520

Metadata in two systems

NC DOCKS

- Holds basic metadata about the data set, as well as a link to Dataverse.
- Data entry by Libraries' personnel.
- Metadata fields controlled and defined by Libraries' personnel.
- Fields are general, to accommodate many types of scholarly works.

DATVERSE

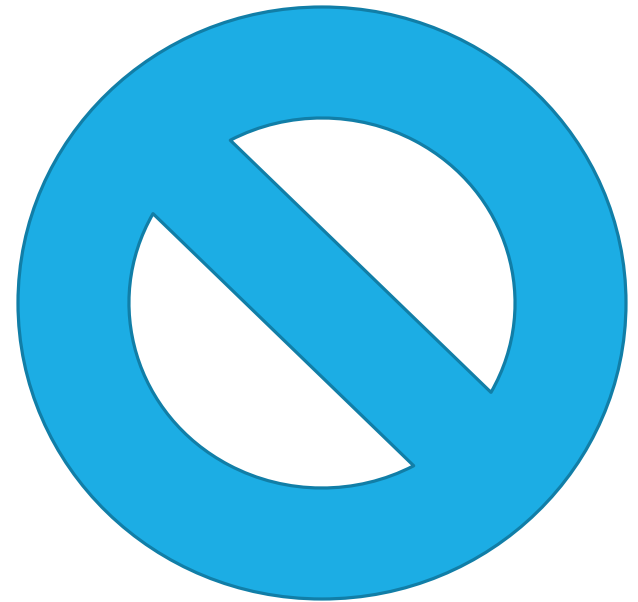
- Holds metadata and the actual data set(s), with option for much more detailed metadata.
- Data entry by faculty member or other user (with support from Libraries, if needed).
- Metadata fields controlled and defined by Dataverse.
- Fields are specific to research data and are DDI compliant

Documentation

Field	Field Part	Dataverse: Required / Recommended / Other	NC DOCKS: Required / Recommended / Other	Dataverse description	DC map	Data field format
Title	NA	Required	Required	Full authoritative title for the work at the appropriate level: marked-up document; marked-up document source; study; other material(s) related to study description; other material(s) related to study. The study title will in most cases be identical to the title for the marked-up document. A full title should indicate the geographic scope of the data collection as well as the time period covered. Title of data collection (2.1.1.1) maps to Dublin Core Title element. This element is required in the Study Description citation.	Title	text box - free
Subtitle	NA	Other	Other	A secondary title used to amplify or state certain limitations on the main title	none	text box - free
Publication	Citation	Recommended	Recommended	Bibliographic reference that includes author, title, year, and publisher of the publication associated with this study and data. Use any standard bibliographic format.	none	text box - free
Publication	Replication data for Original Publication	Recommended	Recommended	This will apply "Replication Data for:" to your title	none	checkbox

What we don't do

- Mandate library review of all DMPs
- Accept legal responsibility for data deposited in NC DOCKS/Dataverse
- Know the researcher's data/research area as well as they do
- Provide curation services
- Store private/confidential/sensitive data
 - Personal Identify Information
 - Electronic protected health information (ePHI/HIPAA data)
- Maintain restricted data access contracts



**TERMS OF USE**

The User Submissions do not contain information that could, directly or indirectly, identify subject except where the release of such identifying information has no potential for constituting an unwarranted invasion of privacy and/or breach of confidentiality. And for all personally-identifiable information in the data at least one of following conditions applies:

- this information has been previously released to the public;
- this information describes public figures, where the data relates to their public roles or other non-sensitive subjects;
- a sufficient length of time has passed since the collection of the information so that the data can be considered "historic";
- all identified subjects have given explicit informed consent allowing the public release of the information in the dataset;
- all information was collected with an explicit statement concerning the public nature of the data, such as information collected for governmental regulatory purposes;
- or, for federal records (data created by a U.S. federal government agency or under a federal contract) only, all identified subjects are deceased and no federal statute explicitly restricts the release of the data

By clicking the "I agree" checkbox below, I confirm that I have read and understood each and every term set forth in the terms and conditions for the use of data and other materials found above, and I agree to be bound by all of such terms and conditions.

If I do not understand or agree to all of the terms and conditions, I must not use or download any data or other materials.

I agree and accept these terms of use.

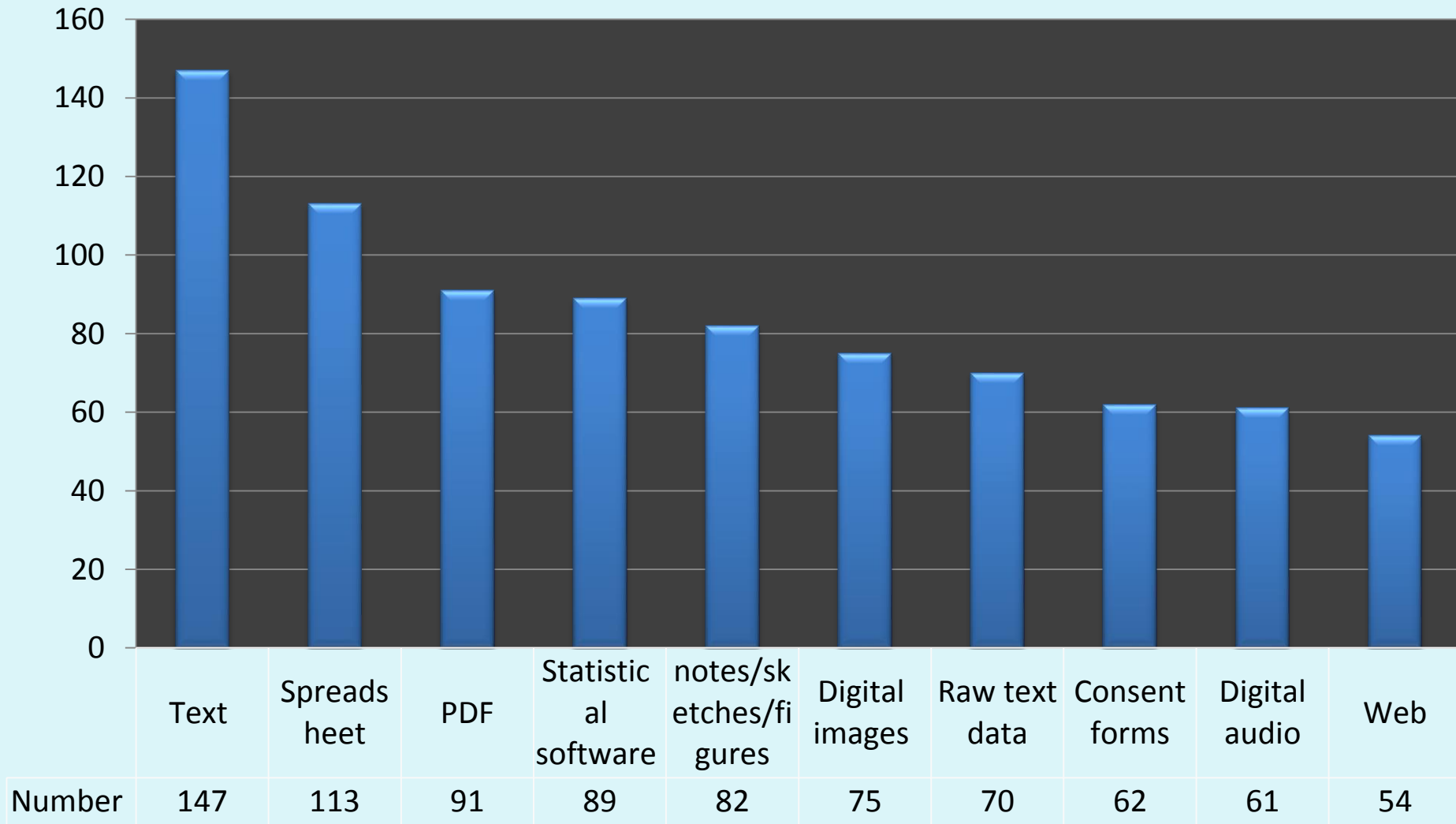
Continue

Cancel

NC DOCKS/Dataverse process

- Researcher contacts liaison librarian.
- Liaison librarian explains our services or contacts DS Librarian.
- Liaison librarian contacts Metadata Librarian.
- Further communications with researcher, via email or in-person.
- Metadata Librarian and/or liaison librarian assist researcher in loading materials into Dataverse and completing metadata entry.
- Metadata librarian completes associated metadata record in NC DOCKS.

Top 10 Research Data Formats



From the UNCG Faculty Research Data Support Needs Survey report,
October 2013

We aren't the only option

- Dryad
- figshare
- ICPSR
- ...and more!

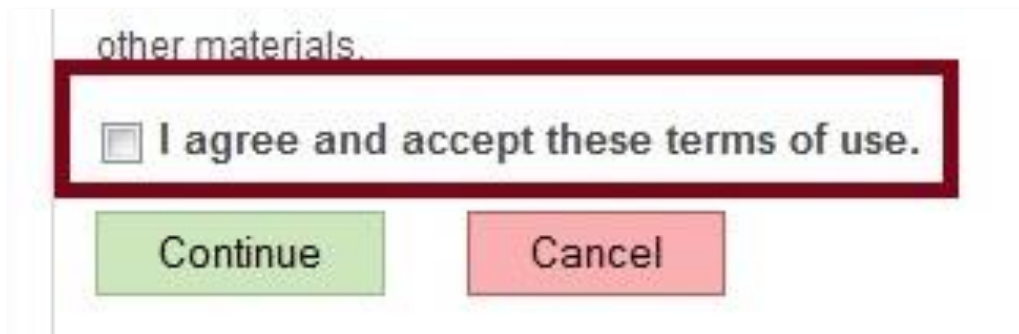


How is it going?

- Outreach sessions offered?
 - 2013-2014 – 1 session
 - 2014-2015 – 5 sessions
 - 2015-2016 – 6 sessions
- Information requests received?
- Access RDM page?
- DMPs created?
- Data sets loaded?

Challenges

- Limited resources (both budgetary and personnel)
- Communication and publicity
- “It’s one more thing to do”
- Changing expectations/requirements for data management
- The Research Data Lifecycle



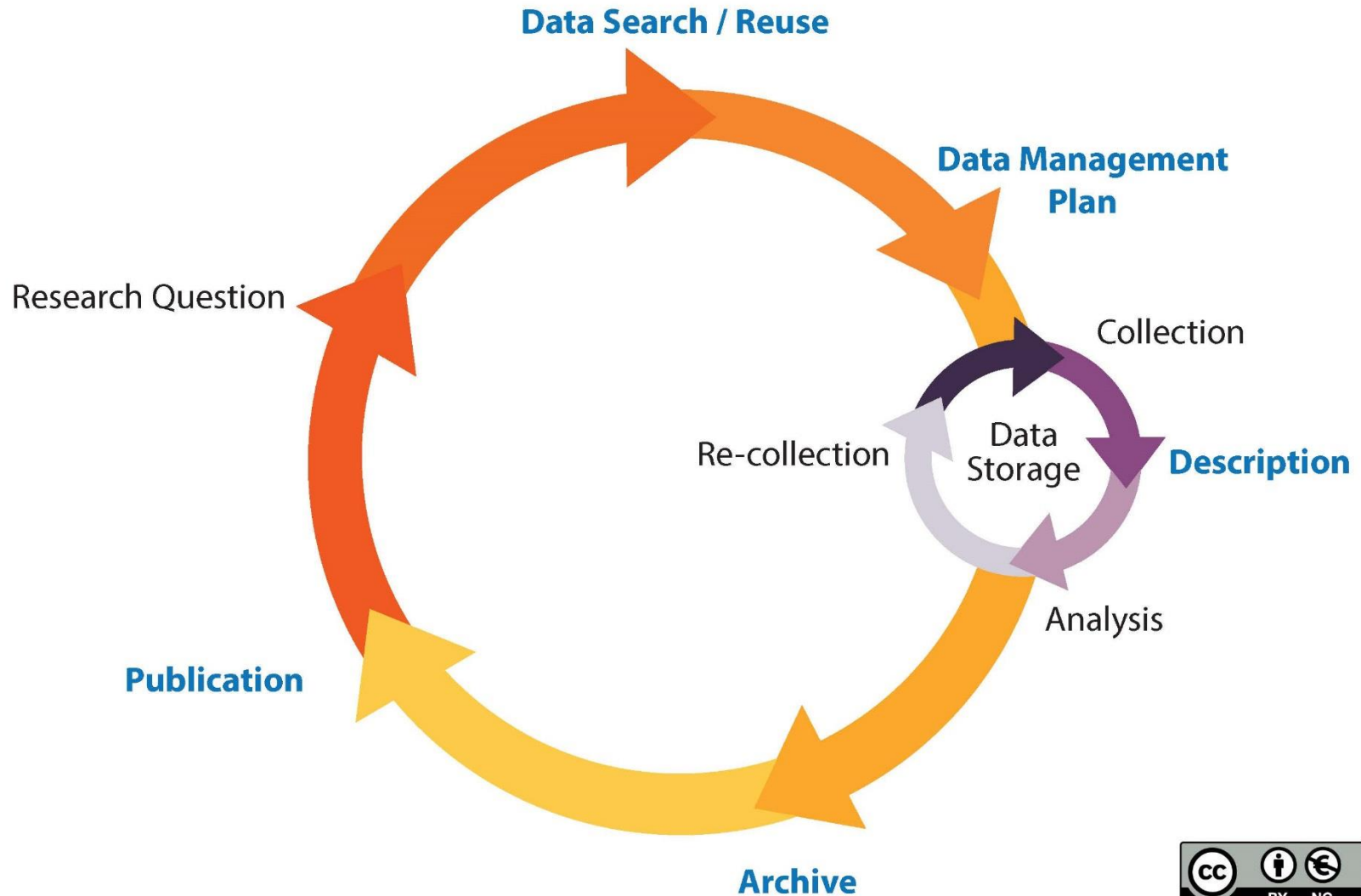
other materials.

I agree and accept these terms of use.

Continue Cancel

The image shows a screenshot of a software dialog box. At the top, the text "other materials." is visible. Below it, a checkbox is followed by the text "I agree and accept these terms of use." This entire line is enclosed in a thick red rectangular border. At the bottom of the dialog box, there are two buttons: a green "Continue" button on the left and a red "Cancel" button on the right.

The Research Data Management Lifecycle



Value

- Strengthen relationships between Libraries, researchers, and scholarly communities
- Meet needs of campus constituencies
- Support new publishing/sharing models
- Demonstrate commitment to open access and the research data lifecycle



Looking forward

- Continue to follow developments in this area.
- Consider further extension of service offerings when budget allows.
- Publicize services to campus researchers and offer educational opportunities.



Thank you!

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Data Services Librarian

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UNCG
University Libraries

UNCG Data Services Links

- NC DOCKS (Institutional Repository)
 - <http://libres.uncg.edu/ir/uncg/>
- Data management LibGuide
 - <http://uncg.libguides.com/RDM>
- UNCG Faculty Research Needs Survey Report
 - <http://libres.uncg.edu/ir/uncg/listing.aspx?id=16367>
- Scholarly Communications LibGuide
 - <http://uncg.libguides.com/scholarlycomm>
- Odum Institute at UNC Chapel Hill:
 - <http://www.odum.unc.edu/odum/home2.jsp>