Defining the Libraries' Role in Research: A Needs Assessment Case Study

Michael Crumpton
Kathryn Crowe
UNC Greensboro
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Why survey?

• Assess faculty needs re: storing and sharing data
• Determine priorities and resources
• Respond to federal and university policies for data sharing
What is research?

• Information recorded in any form, and includes any materials needed to validate research findings, such as laboratory notebooks, biological specimens, video, photographs, and environmental samples
Collaborators

• University Libraries
• Information Technology Services
• Office of Research and Economic Development
Methodology

• Developed survey fall 2012
• Tested late 2012 and early 2013
• Distributed to all faculty, research and post-doctoral staff (1,193)
• 160 completed (13% response rate)
Who responded

- 73% tenure track faculty
- 38% had external funding
## Research Data Formats

### Top 10 Research Data Formats

<table>
<thead>
<tr>
<th>Format</th>
<th>Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Text</td>
<td>147</td>
</tr>
<tr>
<td>Spreadsheet</td>
<td>113</td>
</tr>
<tr>
<td>PDF</td>
<td>91</td>
</tr>
<tr>
<td>Statistical software</td>
<td>89</td>
</tr>
<tr>
<td>notes/sketches/figures</td>
<td>82</td>
</tr>
<tr>
<td>Digital images</td>
<td>75</td>
</tr>
<tr>
<td>Raw text data</td>
<td>70</td>
</tr>
<tr>
<td>Consent forms</td>
<td>62</td>
</tr>
<tr>
<td>Digital audio</td>
<td>61</td>
</tr>
<tr>
<td>Web</td>
<td>54</td>
</tr>
</tbody>
</table>
Document and Text Formats

<table>
<thead>
<tr>
<th>Document and Text Formats</th>
<th>Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Portable document format</td>
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<tr>
<td>Spreadsheet</td>
<td>113</td>
</tr>
<tr>
<td>Text</td>
<td>147</td>
</tr>
<tr>
<td>Hand-written notes/figures</td>
<td>82</td>
</tr>
<tr>
<td>Non-digital text</td>
<td>30</td>
</tr>
<tr>
<td>Web</td>
<td>54</td>
</tr>
</tbody>
</table>
Visual Formats

Audio/Video/Images Formats

<table>
<thead>
<tr>
<th>Visual Format</th>
<th>Number</th>
</tr>
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<tbody>
<tr>
<td>Non-digital audio recordings</td>
<td>7</td>
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<tr>
<td>Digital audio</td>
<td>61</td>
</tr>
<tr>
<td>Digital video</td>
<td>46</td>
</tr>
<tr>
<td>CAD</td>
<td>4</td>
</tr>
<tr>
<td>Digital images</td>
<td>75</td>
</tr>
<tr>
<td>Artistic products</td>
<td>22</td>
</tr>
</tbody>
</table>
Science Specific

<table>
<thead>
<tr>
<th>Number</th>
<th>GIS</th>
<th>Gene sequences or samples or specimens</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>15</td>
<td>9</td>
</tr>
</tbody>
</table>

The diagram shows that there are 15 GIS and 9 gene sequences or samples or specimens.
Storing data

- 68% use CD/DVD, USB, external hard drive
- 58% use computer hard drive
- 27% network file space
- 28% cloud
- Only 16% automatically generate backup files
Sharing data

• 75% did not anticipate sharing data!
• Use cloud services (e.g. Dropbox, Google Docs)
• CDs, file transfer
Barriers to sharing

• Size of datasets
• Confidentiality and copyright
• Limited access to central storage on campus
• Lack of knowledge about sharing - what can be shared and how to do it
• Compatibility across systems
Data Management Plans

• 40% (of 97 respondents that currently have plans)
Priorities for Support Query

- Best practices for developing a data management plans
- Cost estimates for data storage and retrieval
- Meeting data sharing or storage requirements
- Storing data with third-party archives
- Routine data storage & backup services
- Tools for sharing research data
- Digitizing data from older formats
- Applying metadata to research data
- Preparing data sets for public access
- Data disposal/destruction
- Other (please specify)
Priorities for support (summary)

- Storage and backup
- Meeting data storage and sharing requirements
- Data management plans
Conclusions

• Storage and automatic backup greatest need
• Assistance w/ sharing data 2nd greatest need
• Most faculty back up data but are not following best practices
• Many faculty not aware of data sharing requirements or assume final publication suffices
Follow up

• Team wrote report and shared on campus
• IT Services launched a hosting service and Box Cloud storage
• Office of Sponsored Programs (OSP) provides DMP assistance
• Libraries and OSP collaborating on DMPTool
Follow up, cont.

- Libraries provide social science data archiving through Odum Institute
- Liaisons visit key faculty and research staff
- Liaisons provide advice on archiving and preserving data
- LibGuide will serve as a portal for campus services
- Training for liaisons and faculty
Discussion: Libraries’ role with research?

- DMP consultation
- Data management
- Data curation/preservation
- Data literacy
- Institutional repositories
- Research consultation
- Knowledge banks
- Database and web design
- Digitization
- Grant writing support
- Open access support
- Scholarly Communication
Questions?
More information

• Report
  http://tinyurl.com/pzab27y

• Mike Crumpton macrumpt@uncg.edu
• Kathy Crowe kmcrowe@uncg.edu