

# Creating a Data Management Plan & Other Training Opportunities in the Library

## Introduction

Researchers in large academic institutions have multiple barriers to identifying available campus tools and resources for managing their research data. The recently announced National Science Foundation (NSF) data management plan requirement for all new grant applications is a prime opportunity to address those difficulties. The University of Minnesota Libraries has been developing educational and outreach programs to support researchers throughout the data life-cycle.

## User Needs

Our 2006 and 2007 studies of researchers across campus identified unmet needs for assistance with data management and opportunities for the libraries to take a lead role.<sup>1, 2</sup> To quote one College of Biological Sciences faculty member commenting on data organization:

*There are probably better ways. If there were a workshop on organization and file management, I would go. The Libraries do this so well.*<sup>2</sup>

A 2008 survey of nearly 800 researchers on campus explored these needs in greater depth. There was clear evidence of an education gap in the way researchers manage their data. For example, over a quarter had lost important data due to the lack of backup and nearly half used unsecure, external hard drives for backing up data (see Figure 1).<sup>3</sup>

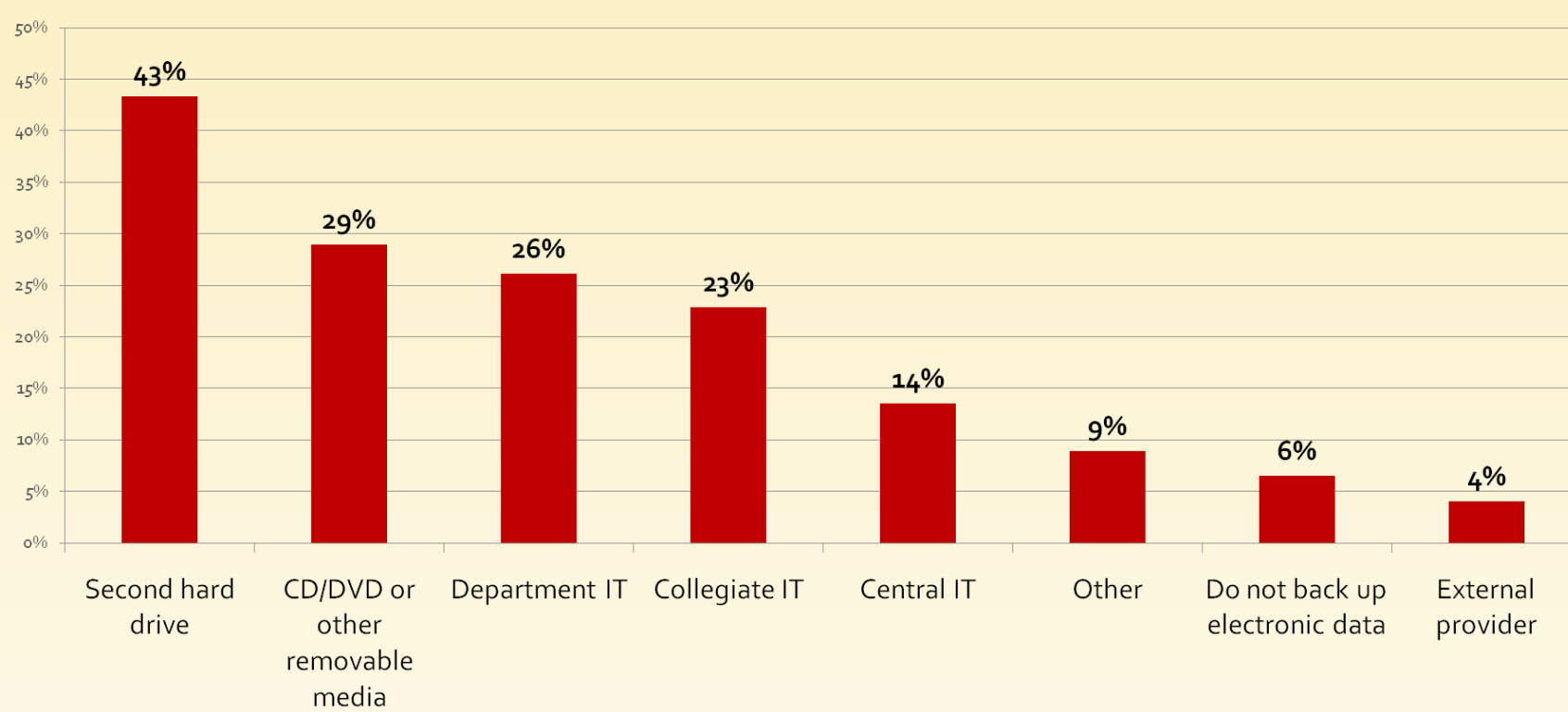


Figure 1. Data backup methods used by University of Minnesota faculty<sup>3</sup>

## Our Approach

Our response has been multi-pronged and recognizes the need to work with partners across campus.

### Face-to-face workshops and consultations

*Introduction to Data Management*

- Practical data management problems
- Campus and other data storage options

*Creating a Data Management Plan for Grant Applications*

- Overview of questions to address
- One-on-one data sharing consultation
- Plan to work with Office for Vice Provost of Research to include in PI continuing education requirements

### Online resources and tools

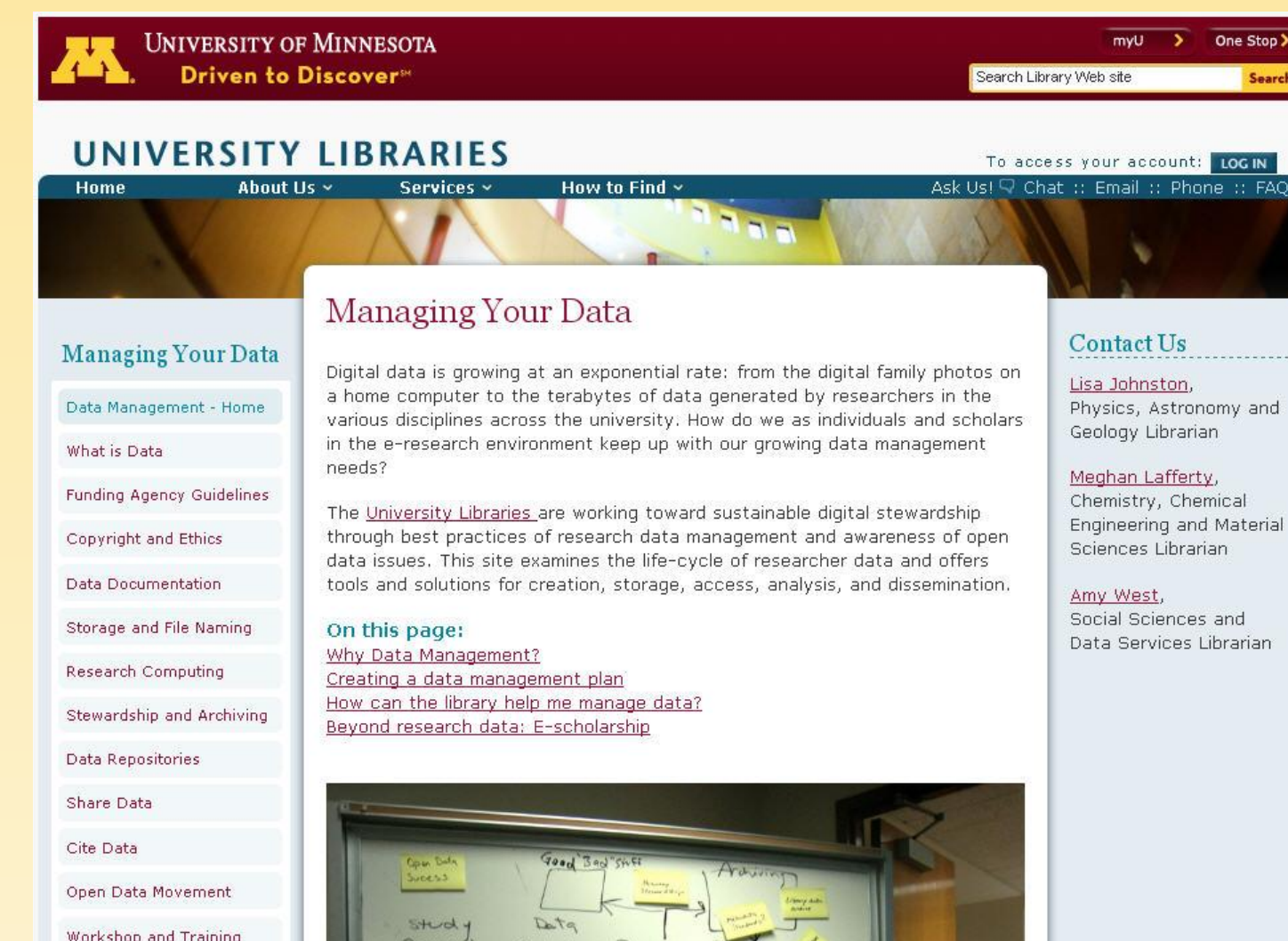


Figure 2. Managing Your Data website screenshot.<sup>4</sup>

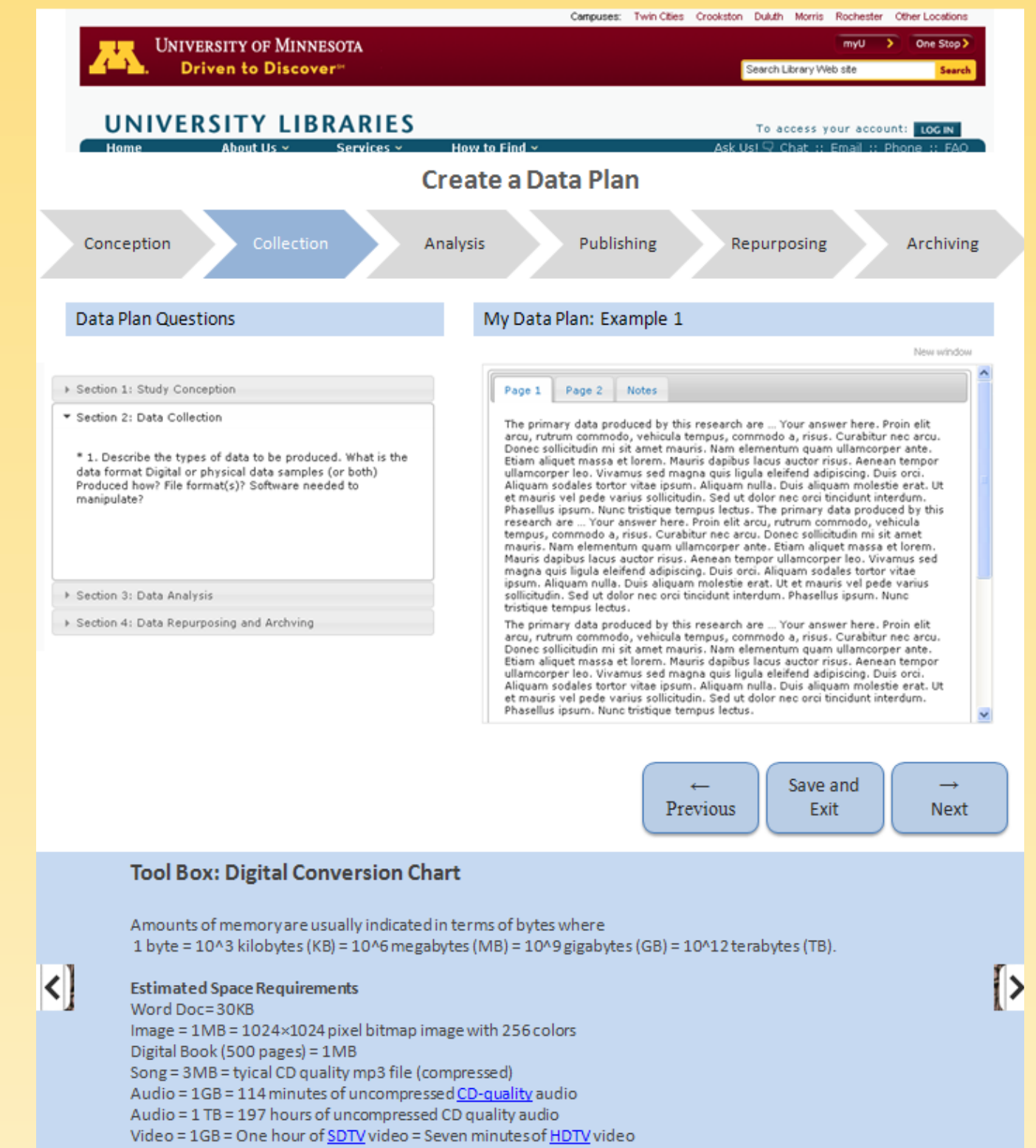
## References

1. University of Minnesota Libraries (2006). *A multi-dimensional framework for academic support*. Retrieved from <http://www1.lib.umn.edu/about/mellon/docs.phtml> on November 4, 2010.
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3. Anderson, T., Gjerdingen, C., Herrmann, B., Himes, K., & Johnston, L. (2008). *Implementing cyberinfrastructure for 21st century research*. Retrieved from [http://www1.umn.edu/ohr/prod/groups/ohr/@pub/@ohr/documents/asset/ohr\\_asset\\_201914.pdf](http://www1.umn.edu/ohr/prod/groups/ohr/@pub/@ohr/documents/asset/ohr_asset_201914.pdf) on November 4, 2010.
4. University of Minnesota Libraries (2010). *Managing Your Data*. Retrieved from <http://www.lib.umn.edu/datamanagement> on November 5, 2010
5. University of Minnesota Libraries (2010). *Research Computing Services Catalog*. Retrieved from <https://www.lib.umn.edu/data/cyberinfrastructure> on November 18, 2010

## Future Directions

Web-based tool guides researchers through data management plan creation.

- Provides directory of data-related campus services
- Poses questions based on NSF requirements



## Lessons Learned

1. Based on the evaluation of our workshop participants we have adapted our approach to include more tools specific to managing data, such as TortoiseSVN version control for software, and demonstrations of file format conversion to preservation-friendly formats.
2. Promotion is key. In order to reach audiences, we partnered with the graduate school to promote our workshop.
3. Users prefer online workshop for introductory skills. We saw a drop in attendance once recording was posted online.
4. Knowledge of discipline specific resources are key. We are building librarian subject expertise in these areas.