Data Management For Researchers: Organize, Maintain And Share Your Data For Research Success (Research Skills)
Synopsis

A comprehensive guide to everything scientists need to know about data management, this book is essential for researchers who need to learn how to organize, document and take care of their own data. Researchers in all disciplines are faced with the challenge of managing the growing amounts of digital data that are the foundation of their research. Kristin Briney offers practical advice and clearly explains policies and principles, in an accessible and in-depth text that will allow researchers to understand and achieve the goal of better research data management. Data Management for Researchers includes sections on:

* The data problem – an introduction to the growing importance and challenges of using digital data in research. Covers both the inherent problems with managing digital information, as well as how the research landscape is changing to give more value to research datasets and code.

* The data lifecycle – a framework for data’s place within the research process and how data’s role is changing. Greater emphasis on data sharing and data reuse will not only change the way we conduct research but also how we manage research data.

* Planning for data management – covers the many aspects of data management and how to put them together in a data management plan. This section also includes sample data management plans.

* Documenting your data – an often overlooked part of the data management process, but one that is critical to good management; data without documentation are frequently unusable.

* Analyzing your data – covers managing information through the analysis process. This section starts by comparing the management of raw and analyzed data and then describes ways to make analysis easier, such as spreadsheet best practices. It also examines practices for research code, including version control systems.

* Managing secure and private data – many researchers are dealing with data that require extra security. This section outlines what data falls into this category and some of the policies that apply, before addressing the best practices for keeping data secure.

* Short-term storage – deals with the practical matters of storage and backup and covers the many options available. This section also goes through the best practices to insure that data are not lost.

* Preserving and archiving your data – digital data can have a long life if properly cared for. This section covers managing data in the long term including choosing good file formats and media, as well as determining who will manage the data in the long-term.

* Sharing/publishing your data – the reasons for and against data sharing and some of the practical aspects of sharing. This section covers intellectual property and licenses for datasets, before ending with the altmetrics that measure the impact of shared data.

* Collaborations and data – this section addresses how to make data sharing across research groups easier. It covers the practical aspects of systems for collaboration as well as policy concerns like ownership.

* Reusing data – as more data are shared, it becomes...
possible to use outside data in your research. This chapter discusses strategies for finding datasets and lays out how to cite data once you have found it. This book is designed for active scientific researchers but it is useful for anyone who wants to get more from their data: academics, educators, professionals or anyone who teaches data management, sharing and preservation.

Book Information

Series: Research Skills
Paperback: 250 pages
Publisher: Pelagic Publishing (September 1, 2015)
Language: English
ISBN-10: 1784270113
Product Dimensions: 6.2 x 0.4 x 9.2 inches
Shipping Weight: 12.6 ounces (View shipping rates and policies)
Average Customer Review: 5.0 out of 5 stars  (1 customer review)

Customer Reviews

I had the pleasure of reading Ms Briney's book Data Management for Researchers, and you'll have to excuse me if I gush a little bit - this book is *awesome*. I cannot recommend this slender, seemingly innocent looking book enough - it will literally change how you think about data management. With chapters on everything from planning your data management to documentation, sensitive data to sharing data, Ms Briney does in just over 200 pages what many people don't grasp after years working with data. Analysis is just a small part of what a researcher, or for that matter what anyone working with data, should worry about. She presents example after example of how things have gone horribly wrong, providing steps to avoid those data tragedies, all in a way that you can read the book in an afternoon. The book's dedication is in memory of data lost - if everyone who collects, analyses, or works with data practiced the steps outlined in even one section of this book, there would be a lot less data that is being lost. Everyone from students to CIOs should read this book - we are all customers of data, and we all benefit when the data is good and suffer when the data is bad. Buy this book, read this book, use this book, and you will benefit greatly
as your chances of losing your hard work will diminish greatly.

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