any library setting will appreciate the background information, level of detail, and clarity of expression. The work is enhanced by more than ten illustrations, numerous shaded textboxes, pertinent references at the end of each chapter, and a four-page index. The content could be used to develop instruction for others who are unfamiliar with the workings of the web or as an on-the-job reference tool for new library staff. The book would have benefited from a concluding chapter that brought the wide range of topics full circle into the integration of services mentioned in the title and hinted at future developments.

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RESOURCE REVIEWS

Tableau (version 9.1). Tableau, 837 North 34th Street, Suite 200, Seattle, WA 98103; info@tableau.com; http://www.tableau.com; free and paid versions available.

As their work grows more data-intensive, it is becoming increasingly important for librarians and information professionals to be able to harness the power of data in their research and decision making. Visualizing data is one method for making data-informed decisions and is a skill that all librarians should have in their back pockets. Through visualization, librarians can present large amounts of information in a concise manner and analyze large data sets to produce new insights. Given the growing importance of data, it is therefore no surprise that there has been increasing interest in the field of data visualization. While there are a wide variety of data visualization tools available, Tableau dominates the field.

Tableau software is a tool for exploring, analyzing, and presenting data in a visual, interactive format. Used by thousands of corporations, journalists, and nonprofits alike, Tableau's mission is to "help people see and understand data" [1]. One of the reasons Tableau has grown so popular is that its drag-and-drop interface is relatively simple to use; therefore, users without any programming knowledge can easily manipulate data to create a wide variety of interactive visualizations.

Librarians can use Tableau for a wide variety of analysis and presentation tasks. Librarians could share survey results through an interactive, visually compelling dashboard with a variety of graphs and charts, which they could embed in their library websites for patrons to explore. Administrators could track circulation counts over time with a simple Excel chart, or they could make a more robust chart in Tableau that would allow them to apply a variety of filters (such as library branch, time of day, collection area) for deeper analysis. As a graduate student and librarian, I have used Tableau to present LibQUAL survey data and project timelines and to analyze circulation statistics and database records (Figure 1). In some cases, the end visualization was meant to be an analysis tool, a way to take a large amount of data and make it easier to see patterns and outliers. In other cases, the visualized data were used to present a case to administration or tell a compelling story.

With Tableau, librarians can visualize a wide variety of data types, including temporal, spatial, topical, and network data. The available visualization types include tables, bar charts, heat maps, tree maps, histograms, bubble charts, world maps, and more. Because the tool indicates which variables are required for each visualization type, it is relatively easy to explore a variety of different views of one's data. Once users choose a basic format or chart, they can add more dimensions to their visualizations through the use of colors, shapes, and sizes for different variables. When the visualization is complete, users can work with the dashboard or story feature to produce a polished final product. Tableau dashboards are a way to present several visualizations that are enhanced with annotations and filters and can be a way to present a quick overview of one's data. The story feature allows Tableau users to create an electronic presentation that enables readers to navigate through distinct views of the data pre-
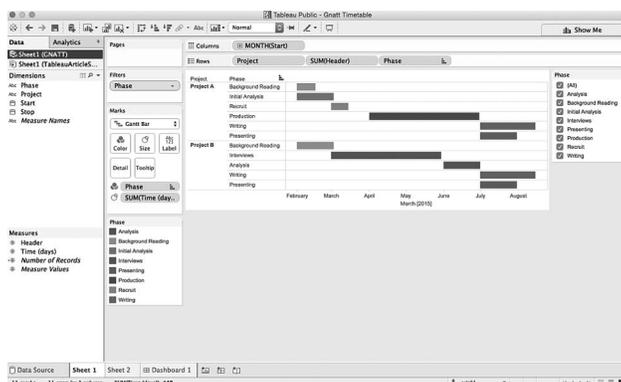
Figure 1

A visualization of two project timelines in Tableau's interface

sented in a more narrative format.

Currently, Tableau is available for both Windows and Mac as a free, cloud-based version called Tableau Public, as well as fee-based desktop, server, and online versions. The main differences between the free and paid versions of the software are the types of files that can be uploaded (the fee-based version offers more options, including the ability to connect directly to a variety of databases); the way files can be shared (the paid version allows users to export files to the free Tableau Reader app or embed them in a website, but Tableau Public files can only be viewed on Tableau Public or by embedding them in a website); and the way files are saved (the paid version allows users to save files locally or online, whereas Tableau Public users must save their files to the Tableau Public website). While the free Tableau Public version can be an excellent way to get started with the software, it is important to remember that all files are saved to a user's profile on the Tableau Public website, where they are accessible to anyone with the uniform resource locator (URL). Tableau Public would, therefore, not be a tool for sensitive financial or personal data.

While Tableau can be a powerful tool, there is a bit of a learning curve to get started. It is often necessary to reformat and clean data before it can be uploaded, and new users might struggle to understand some of the data types and functionalities. Librarians who only want to create simple bar charts and pie charts are probably better off sticking with Excel. Those who do want to create more advanced visualizations will benefit from Tableau's strong customer support and user community. The Tableau website features online tutorials, webinars, and papers, as well as community forums, which feature thousands of questions asked and answered by Tableau users. In addition, because the tool is so popular, a simple Google search will retrieve thousands of articles on specific features or best practices. Finally, the Tableau Public Gallery is an excellent resource for ideas and inspiration.

While it is far from perfect, Tableau software makes it easy to visualize large data sets and can be a useful tool for librarians who are interested in data-in-

formed research and decision making.

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1. Tableau. Mission [Internet]. [cited 20 Oct 2015]. <http://mission.tableau.com/#/mission/>.

Mendeley (Version 1.15.2). Mendeley, 360 Park Avenue South, New York, NY 10010; business@mendeley.com; http://www.mendeley.com; free and premium versions available.

Mendeley is a citation management program that, like Papers and similar programs, is challenging more established citation management programs, such as EndNote and RefWorks, as well as the traditional pen-and-paper method. It has several exciting features as well as some drawbacks. Overall, it is a well-supported and used program that should provide an alternative to students who do not want to use more traditional programs.

Mendeley was founded by 3 German graduate students in 2007 and purchased by Elsevier in 2013. Mendeley is freely available, and a premium version can be purchased via either individual or institutional subscriptions. The program is available on multiple platforms, including desktop and mobile devices. The free version is fully functional