

Book Review

Knafllic, C. N. (2015). *Storytelling with data: A data visualization guide for business professionals*. Wiley. (267 pp., Paperback \$41.95)

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Introduction

For well over a decade communication center scholars have discussed the importance of expanding the reach of communication centers beyond the humanities to serve students from a variety of disciplines such as business and STEM fields (Bayer & Curto, 2012; Cuny, Ellis-Harrison, & Williams, 2019; Schwartzman, Kirchoff, & Cuny, 2019; Ellis & Stuart, 2021; Velez & Rister, 2021; Clements, Foltz, & Sawicki, 2021). Currently, business, healthcare, cybersecurity, and many STEM fields, have become increasingly focused on data science, data analytics, and data visualization (Sarker, 2021). Thus, as communication centers cross disciplinary boundaries, communication center consultants need to be increasingly nimble and offer feedback on approaches for communicating data insights related to data, visuals, and narrative. Without the ability to communicate insights about technical content and complex data sets, the data become less valuable and speakers less persuasive. Helping speakers connect the dots between complex data analyses and key decision makers via storytelling techniques will bring the data to life and assist students as they seek to improve their communication skills.

Knafllic's (2015) *Storytelling with data* is a helpful tool when considering ways to offer feedback to students about storytelling with data and data visualization. As communication centers strive to assist students from a wide variety of disciplines and backgrounds, tools that provide guidance on creating effective visuals to connect with broad audiences are useful resources for offering examples and points of reference. Furthermore, it is important to create high quality, consumable data visualizations for diverse learning styles as well as for connecting with audience members who are and are not neurotypical (Medina, 2020). Medina explained that oral presentations are significantly *less efficient* than visuals or pictures for retaining certain types of information. Effective data visualizations paired with impactful storytelling offer speakers a more efficient approach for connecting with diverse audiences.

Content Overview

Knafllic's text consists of ten chapters and covers the importance of context and audience analysis, choosing effective visuals and visualization best practices, and storytelling lessons. Although Knafllic (2015) highlights specific, real-world examples throughout the book, chapter nine offers multiple case studies with helpful visualization examples to illustrate color considerations, animation, establishing logic in the ordering of the data shown, and guidance for tricky spaghetti graphs and pie chart alternatives. Knafllic connects the dots and offers direction for converting analytical results into a compelling and persuasive story.

The text is written in a simple and conversational style with numerous visuals to illustrate data visualization concepts, best practices, and pitfalls. In addition to offering visual examples of the written text, Knaflie also includes practice exercises and call out boxes that highlight additional recommended readings or tips. Overall, the simple and conversational tone and visual highlighting make this text more accessible to students and people with little data visualization experience.

Data Visualizations and Color Considerations for Diverse Audiences

Knaflie devotes a brief section of the text to discussing color usage and the importance of contrast. She recommends using color sparingly for data visualization and explains that sufficient contrast, not fancy and colorful visuals, is essential to focus an audience's attention. She argues that using too many colors "...prevents anything from standing out...[and] when we use too many colors together, beyond entering rainbowland, we lose their preattentive value" (p. 118). Knaflie also offers some guidance related to color selections for colorblind eyes and suggests a resource for thinking about cultural color connotations when creating visuals for an international audience.

Overall, Knaflie's book offers a starting point for using color effectively when creating visuals, but for more detailed guidance consider Strachnyi's (2023) *Colorwise: A data storyteller's guide to the intentional use of color*. Strachnyi offers additional discussion and best practices related to accessibility and color blindness as well as color and cultural design considerations when creating data visualizations.

Evaluation, Reflections, & Applications

The *Storytelling with data* text is presented in an accessible and simple format. Although the book is geared toward business professionals, Knaflie offers excellent illustrations and examples in each chapter that are applicable to many different contexts. In addition, the case studies provide step-by-step considerations when creating different types of visualizations that apply to a wide range of contexts and disciplines. The examples and comparisons are helpful for illustrating the impact of color, clutter, and chart type when creating data visualizations. Communication center consultants may find these examples useful when offering feedback to students on various visualizations. Furthermore, this text highlights numerous data visualization best practices and may be helpful for a tutor who is trying to explain why they recommend changing a pie chart to a bar chart.

For more practical application opportunities, Knaflie (2020) published *Storytelling with data: Let's practice!* This book is another helpful tool to supplement Knaflie's (2015) text and offers additional storytelling with data practice exercises and examples. This supplemental text could also be useful for faculty, tutors, and students who want to further hone their data storytelling and visualization skills. Overall, this text is a useful tool for communication centers' staff to use when working with students on data visualization and storytelling with data. Training tutors to critique data visualizations and help students choose optimum approaches for presenting

information offers significant value particularly when working with students majoring in business or STEM fields. The examples and insights provided throughout the text offer useful guidance for helping students present data to diverse audiences and influence decision-making by helping an audience understand why the data is important through storytelling techniques and data visualization best practices.

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