

Demonstrating library impact and value is the theme of chapter 3. Graham Stone from the University of Huddersfield discusses another multi-institution Jisc-supported project called the Library Impact Data Project (LIPD). Although this project involved eight institutions, much of the case study focuses just on what happened with the University of Huddersfield. By linking library usage to demographic data, this project allowed the library to determine if usage impacted retention and academic attainment. The author outlines multiple challenges faced with this kind of data-driven project. The University of Minnesota Libraries is the setting for the second case study in this chapter, although student success, retention, and engagement were similar drivers of their project. Using more usage-focused data points, this project was able to show improved performance as usage went up. Importantly, the authors of this case study discussed what they did with the information to promote the library. A third case study in this chapter examines the Library Cube project at the University of Wollongong. The Library Cube is a database that links demographic and academic performance data to library usage data. A detailed description of the database is provided as well as results of their analysis.

Chapter 4 steps away from quantitative data and provides case studies that use qualitative data. Additional information is given in the opening to explain qualitative research and user experience studies. The first case study comes out of OCLC Research and the work of Lynn Silipigni Connaway in collaboration with the University of North Carolina at Charlotte. The Visitors and Residents Project uses a number of qualitative research tools to understand how people use different technologies and resources to conduct research. This is the longest case study, providing in-depth detail on their methodology and findings. Uniquely different is the second case study, which looks at how the University of North Carolina at Charlotte undertook several observational studies to conduct space assessments.

Chapter 5 is the odd nonlibrary chapter in a book about library analytics. Cultural heritage institutions are the organization of choice, and the focus of the chapter is on web metrics. The British Library is included in the case studies in this chapter, although museums, galleries, theatres, and other cultural sites make up the majority of focus. The first case study looks at how the web and social media can directly impact an institution and also maps out the web linkages between institutions and how they drive usage. The second examined digital engagement and how understanding user behavior can directly change an institution's approach to web-based tools.

The book concludes with a chapter on the legal and ethical issues that surround analytics. This is slightly touched on in many of the preceding chapters and case studies, so dedicating a single chapter to this topic serves to pull all the previous work together. Although there is a case study in this chapter, it is more of a general discussion in comparison to the project-based discussions in the other case studies. From a reader's standpoint, this book does a very good job of covering a variety of different projects, and the unique format works very well. This is a title that all libraries should have and every library leader should read. It is highly recommended. — *Mark E. Shelton, Harvard University*

Not Just Where to Click: Teaching Students How to Think about Information (Publications in Librarianship No. 68). Eds. Troy A. Swanson and Heather Jagman. Chicago: American Library Association, 2015. 440p. \$88.00 (ISBN 978-0-8389-8716-2).

I have worked in higher education for more than ten years, and I have seen the face of our student body change during that time. The student population is becoming more diverse overall, but most college students these days are referred to as digital natives or Millennials. They enjoy binge-watching their favorite television shows and get their

news from *The Daily Show*. And their communication and information seeking is digital. I have talked to many colleagues who have struggled, as I have, with reaching out to this generation of students and instilling in them the benefits of information literacy. Addressing the needs of our students and developing their critical thinking skills are two of our most pressing concerns.

Part I of the book, "Bridging the Gap between Librarians, Students, and Faculty: Conceptualizing Information," addresses the divide between what librarians and faculty think students need and what students think they need. The first four chapters of part I address librarian and faculty epistemologies and beliefs. Chapter 1, written by Lane Wilkinson, examines theories of knowledge applied in library science. The second chapter tracks Beth McDonough's journey from traditional information literacy instruction to critical information literacy instruction and explains why librarians should be open to critical pedagogical concepts. Mezaros and Lewis discuss "Librarianspeak" in chapter 3. Their "corpus analysis" of the metaphors used in the literature of librarianship revealed words and phrases related to military science, romance, guesthood, and gaps/bridges. The fourth chapter considers the faculty view of information and information literacy. Barbara Fister explains that, if we understand more about faculty epistemologies, we can work more effectively and collaboratively with them.

To bridge the gap between librarians, students, and faculty, it is important to examine student epistemologies and beliefs too. The second half of part I does just that. I referred previously to digital natives and millennials, also termed Generation Y. In chapter 5, Cole, Napier, and Marcum introduce us to their research on Generation Z and its information beliefs and assumptions. Generation Z differs from its predecessor in that students in this group have been "wired" since birth. Asher takes the discussion a step further in chapter 6, analyzing empirical data on student research habits. He proposes that, for librarians to best help their students to become effective researchers, we must first critically assess the search tools we employ. Patricia Brown, in chapter 7, writes a forceful argument for the evolution of information literacy instruction in light of the changing characteristics of information and the changing needs of students. In chapter 8, Morrison and Greenfield round off part I with a report on their research into student learning and experience. Using a constructivist lens, the authors of this chapter completed qualitative research that enabled them to remodel their for-credit library instruction course emphasizing student experience, reflective evaluation, and critical thinking.

After the chapters on librarian, faculty, and student epistemologies set the stage, part II of the book, "Making It Work: Teaching Students about Information," continues the conversation about students' acquisition of knowledge. The first third of part II focuses on expertise, authority, and credibility. Chapter 9, written by the esteemed William Badke, considers how the ways in which we think about expertise and authority have evolved over the years and how today's student attempts to decipher authority and expertise. Badke offers several techniques to employ in teaching students about the complexities in the concepts of authority and expertise. Chapter 10, by Alison Hicks, addresses critical information literacy. She chronicles the design of two advanced Spanish writing classes using a critical IL framework focusing on preparing students for global knowledge societies. Chapter 11 revisits the topic of source authority. In this chapter, Young and Van Holten write about a collaboration between librarians and faculty, steeped in critical IL, to avoid the binary nature of information literacy instruction for a more balanced, meaningful approach. The first half of part II ends with chapter 12, written by Walls and Pajewski, who used an activity system model to view and review a collaborative effort between a composition faculty member and a librarian examining, among other things, the use of libguides, student research habits,

and student/librarian instruction time. This half of part II illustrates the deficiencies in traditional authority instruction and offers a variety of solutions and ideological and epistemological models.

The next 3 chapters of the book concentrate on point of view, belief, and source bias and also employ various ideological and epistemological models. Stephen Sanders writes in chapter 13 about LIS and postmodernism. He discussed thinking critically about breaking down barriers, such as the use of jargon, which may hinder our students from accessing information. He ends by emphasizing awareness—awareness of how we view the world and awareness that others view the same thing through different lenses. Chapter 14, written by Obst and Eshleman, returns to the subject of librarian/student connection, encouraging librarians to get to know their students and to acknowledge the diversity in the student body. In chapter 15, Willie Miller explains how he used real world examples from the news media to teach his students about information evaluation. He includes details about his lecture and the accompanying activity.

Building on the discussions of bias and point of view, the text finishes with a section on “Interpreting the World.” Where Miller developed an instruction plan based on print media to teach bias, in chapter 16, Critten, Barnhart, and Shroer address the rhetoric and multimodal information literacy. Both the one-shot and credit-bearing classes successfully used an episode of *Penn & Teller: Bullshit!* to teach about logical fallacies; a useful appendix is included. On a hunch, Rebecca Halpern and Lisa Lepore conducted a citation analysis of their students’ work and found that, although the students were competent in finding sources, they struggled to integrate those resources. In chapter 17, Halpern and Lepore demonstrate how they used critical pedagogy and storytelling as a means to develop their students’ information literacy skills in a creative way. Another creative approach to IL instruction is presented by Lucy Mulroney and Patrick Williams in chapter 18. Mulroney and Williams write about their collaboration with a writing instructor to design a course where students use Special Collections to create a DIY ‘zine. The final chapter, written by Laura Saunders, returns to the timely topic of media literacy. In chapter 19, Saunders urges us to undertake media literacy instruction to assist students to become critical thinkers.

Developing critical thinking skills and addressing the needs of our students are two of the main concerns of library faculty at my institution. When I saw that *Not Just Where to Click: Teaching Students How to Think about Information* was being published, I very enthusiastically sought the book out. I had hoped to learn a few tricks and read a few tips to help us plan and teach more creatively. However, from the first chapter, I knew this book would be different. So many of the chapter authors delve into critical pedagogy and demonstrate how they thought outside the box to develop and deliver creative IL sessions to engage their students and teach string, interesting classes. If you are looking to raise the bar in your IL sessions, I highly recommend this book. —Kelli Johnson, Marshall University