

Information Pathways: A Problem-Solving Approach to Information Literacy. BY CRYSTAL FULTON. Lanham, MD: Scarecrow Press, 2010. Pp. vii + 145. \$40.00 (pbk.: alk. paper). ISBN 978-0-8108-7426-8.

Crystal Fulton's book is intended as a "textbook for courses that address college students' need to develop basic knowledge of the complex matrix of core resources for the retrieval, management, and exploitation of information" (back cover). As a basic textbook it succeeds, with eleven short chapters written in an informal style presumably designed to capture the increasingly-scant attention span of the modern college student. Funny or illuminating quotes, such as Zora Neale Hurston's definition of research as "formalized curiosity... poking and prying with a purpose" (75) are scattered throughout and help to keep the reader's interest. It adheres to classic textbook format, each chapter beginning with a list of learning objectives ("What You Will Learn in This Chapter") and ending with exercises for practicing the techniques covered. A "Quick Tips Summary" in each chapter summarizes the most important points and makes for easy reference. Bibliographies are minimal and list only the sources specifically mentioned in the chapters.

One interesting innovation is the incorporation of blogging as a tool for the reader to reflect on his or her own developing information literacy. Chapter Two includes instructions for setting up a blog using Google's Blogger.com, and subsequent chapters include writing prompts to which students can respond via their blogs. An exercise in Chapter Six, for example, asks readers to determine if a specific book is still in print, then to use their blogs to explain the process and resources used to find the answer. Exercises like this should make it easy to incorporate the book into the types of information literacy courses for which it was written.

But while the short chapters and bibliographies, numerous sidebars, blog exercises, and floating quotations make for easy reading, they also make the book feel decidedly unsubstantial (and, at a list price of \$40.00 for 144 pages, like a bit of a rip-off, especially for cash-strapped undergraduate students.) Obviously, the book is not intended as a comprehensive guide to research in the mode of Thomas Mann's *The Oxford Guide to Library Research* (3rd ed., Oxford: Oxford UP, 2005); nevertheless, in trying to keep the text as basic and short as possible the author has created a text that often feels incomplete. The book also seems unfocused at times, with digressions on the Google Books class action settlement (62) and basic study skills (127), for example, that are noticeably out of place in a general information literacy textbook. With a clearer focus, more detailed explanations of concepts, and better real-life examples of search techniques, *Information Pathways* would be much more informative and useful to students at all levels.

After an introductory chapter, Chapter Two, "The Complex World of Information," covers the definition of information literacy and discusses the differences between terms like data, information, and knowledge and between querying, searching, and browsing. Chapter Three, "Finding Factual Information," is a standard discussion of reference sources, along with tips for finding and using these sources in one's research.

Chapter Four, "Selecting and Navigating Electronic Information Systems" (which here means, primarily, "databases," although there is some discussion of search engines and of Google's Advanced Search features), is the book's longest and most detailed, and features good explanations of Boolean operators, truncation, and proximity searching. Yet the detail feels misplaced; some concepts are explained to death while other, equally important, ideas are only vaguely addressed. For example, there are nearly five pages devoted to criteria for evaluation of

electronic information systems, including currency, organization, user-friendliness, authority, and more, but there are only three short paragraphs on controlled vocabulary, one of the most powerful tools for effective searching. Additional details to illustrate, for example, the differences between natural language and controlled vocabulary, or between vocabulary in different disciplines (such as the *Thesaurus of ERIC Descriptors* and the *Thesaurus of Psychological Index Terms*,) would make this chapter clearer and more useful. Likewise, the one-page discussion of analyzing search results briefly mentions a few standard criteria (reliability, authority, currency) but would benefit from more examples or exercises to help students with this difficult task.

Chapter Five offers an explanation of “Practices of Information Organization and Access,” including bibliographies, catalogues, and indexes, as well as “twists” on organizing information like WorldCat and Google Books (62). Chapter Six, “Channels of Communication,” presents mechanisms for information access and exchange from the formal publishing process to “communication in our everyday lives” (78), with a focus on how to use an understanding of these channels to locate published works. The information is worthwhile but perhaps should have come earlier in the book, since the publication of information in books and journals would logically precede the tools of bibliographic control, electronic information systems, or reference works used to locate that information.

Chapter Eight, “Counting on Our Numeric Literacy,” is another example of the good ideas in the book that are desperately in need of better explanations and examples to make them relevant for students. Several reviewers have commented on the uniqueness of this chapter, but, while it does offer a good introduction to this often-overlooked skill, it does not go far enough to be truly useful. For example, the two short paragraphs on evaluating numeric information boil down to

the assertion that “It is essential that we evaluate numeric information critically, just as we would other forms of information” (109), without offering any meaningful guidance on how, exactly, to do that. For example, what makes a statistically sound study? How do sample size and selection affect data? How important is generalizability of the results? The author hints at some of these questions in the “Quick Tips Summary” for Chapter Eight—for example, “Evaluate the process for gathering or compiling numeric data” (110)—but without further explanation or detail it is difficult to say how such a tip would be applied.

Chapter Nine, “Putting Our Information Skills to Use,” is, to this reviewer, the real heart of the book, and it stands out as an excellent demonstration of the “problem-solving approach to information literacy” promised by the book’s subtitle. The entire chapter is devoted to a step-by-step model of how to apply the information search skills covered in the previous chapters to solve an information problem, in this case the problem of tracking down Irish ancestors. The author expertly guides the reader from breaking down the research into smaller steps, a process she terms “micro to macro information problem solving,” through “challenges to consider,” “brainstorming [an] approach [and] sources of information,” “overcoming information gaps and barriers,” “combining information sources,” and finally to “creating, managing and sharing information” (114-17). Without getting bogged down in bibliography she provides some sample print and Internet sources that could solve the problem under consideration. The chapter could function as a model assignment for an information literacy class of the type for which this textbook was intended.

The final two chapters, “Maintaining Information Literacy Levels in a Changing World” and “Some Final Thoughts on Finding and Using Information” are largely filler. They cover the (unnecessary) question of “Why adopt a continuous learning approach?” (124) and include basic

information on good study habits and time-management for college students that feels out of place here. The last chapter also includes the suggestion that students talk to a professional (i.e., a reference librarian or archivist) for help if they cannot find the information they need. As a reference librarian I certainly appreciate the recommendation, but I could not help but notice other places throughout the text—for example, the discussion of selecting databases in Chapter Four—where it also would have made sense to include the tip to consult a librarian.

While *Information Pathways* undoubtedly contains some excellent information for students, I would be reluctant to recommend it or to adopt it for my own information literacy course. If I were teaching such a course, I would be more inclined to choose a text like Mary W. George's *The Elements of Library Research: What Every Student Needs to Know* (Princeton, NJ: Princeton UP, 2008) which, while admittedly more library-centric than Fulton's textbook, covers much of the same ground in a more thorough manner. Although not significantly longer than Fulton's book (199 pages instead of 144), George's long chapters—Introduction to Research as Inquiry; From Research Assignment to Research Plan; Strategy and Tools for Discovery; The Fine Art of Finding Sources; and Insight, Evaluation, Argument and Beyond—feel more substantial and provide more practical details and examples of research techniques. For example, the section on evaluating resources includes a chart of important factors (date of the source, author's credentials, sponsor's reputation, etc.) as well as a detailed rationale for why each of these factors should be important to the researcher. In addition, the book possesses a longer (and annotated) bibliography as well as various appendices, such as a glossary, sample research timelines, and guidance on how to ask an instructor or subject librarian for assistance, that make the book a better value for students.

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