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Contents:

REVIEW OF: Donald A. Barclay. (2003). *Teaching and Marketing Electronic Information Programs: A How-To-Do-It Manual for Librarians.* New York: Neal-Schuman.

by Marcy L. Brown

Advances in both technology and user sophistication find many librarians moving away from long-established roles as information gatekeepers or intermediaries toward newer roles of trainers and consultants. Librarians today, whether working in a K-12 environment, a university

setting, or within a special library, must embrace the importance of teaching people how to find and evaluate information. Donald Barclay's 2003 entry in publisher Neal-Schuman's How-To-Do-It series, *Teaching and Marketing Electronic Information Programs*,serves as both an introduction to electronic information literacy and a practical, hands-on guide for instructors and trainers. Donald Barclay has co-authored several books on library-related topics, including the earlier 1995 edition of *Teaching Electronic Information Literacy.*

It is unclear whether Barclay wrote the book with a specific audience in mind, or if he desired the broadest possible readership. The preface mentiones information literacy requirements of "schools and colleges," but never distinguishs between K-12 schools, community colleges, or 4-year universities. Librarians in public or special libraries, who work solely with adult professionals or learners, may find it impossible to gauge from the introductory information the book's relevancy for their served populations. Other than this slight limitation, the front matter gives a good overview of the material and how to use it. The book is divided into four major sections: electronic information literacy key concepts and strategies; ready-to-go PowerPoint presentations; strategies for becoming a master instructor; and three chapters on program management and marketing. An introductory note containing fifteen tips for presenting with PowerPoint serves as a concise evaluation tool for any presentation aid.

Barclay was careful to explain the spectrum of current thought regarding information literacy and to provide enough information for the reader to create a personal, working definition. This allows the librarian to define and develop a literacy program based on the specific needs, desires, and capacity of the institution or organization. The book also emphasizes the importance of assessment and evaluation. Sample evaluation instruments are not provided. There are tips on developing instruments, but taking the concept one step further would have been much appreciated by harried librarians with little or no experience in evaluation, and would have been within the scope of the book. Particularly helpful was the list of basic computer skills provided as a literacy starting point. Barclay also provides specific information about the critical thinking abilities that are part of information literacy, and includes standards from the Association of College and Research Libraries (ACRL).

Closely tied to this developmental material is information to convince administrators who may doubt the need for information literacy programming. The chapter on combating the "Just a Click Away" mentality is filled with useful arguments and examples of how to demonstrate to learners that not all information is easily accessible, or free. Barclay also discusses the importance of teaching about information economics, and uses wonderful examples of sites supported by taxpayer dollars or pop-up ads. The economic discussion also emphasizes the need to teach learners about proprietary resources, using Medline as an example and a starting point for discussion. Information ethics are given significant treatment in this section, with a helpful discussion of online plagiarism and the role of the information literacy instructor. Plagiarism as presented here is not always relevant in an adult learning environment, but is definitely important to school and college librarians and instructors. The section on copyright

is relevant to all information literacy instructors, so it is somewhat disappointing that it is so short and oversimplified. To its credit, the book does point the reader to more comprehensive print and online sources of information on copyright, which are absolutely necessary if a librarian plans to cover it in a class or presentation.

The book then moves into what many librarians consider their primary goal – teaching how to search for, retrieve, and evaluate electronic information. Barclay's method is to tell the reader about an information literacy issue, discuss a way to make the issue apparent to learners, and then provide some information for the reader regarding why the issue is important. This is an extremely effective technique and blends just the right amount of theory with hands-on examples and exercises. However, it is annoying that so much substantive information was placed in tables or figures. Figure 4-1 describes, "common roadblocks encountered by anyone searching for information." The figure is actually 5 full pages long! This strange organizational structure buries much of the substantive material and disrupts the chapter flow. Organization aside, this chapter contains many of the book's valuable pearls, including an annotated list of generic things that all searchers should know about databases.

The twelve canned PowerPoint presentations in the book's second section have screen shots in the text itself and are on an accompanying CD. Presentation topics include: Boolean Logic; Electronic Searching Essentials; Evaluating Information; Information Roadblocks; Iterative Search Process; Precision versus Recall; and Web Search Engines. The presentations may be used as is, or modified to meet a librarian's specific needs. Barclay grants instructors the right to be "as creative as they wish" with the presentations, and each one has two versions on the CD: a dressed-up version, and one to which a PowerPoint-savvy user can add favorite logos, layouts, and designs.

The lack of detailed information on program marketing was surprising – and disappointing. Since the book's title is _ *Teaching and *Marketing* Electronic Information Programs*_, this reviewer expected more than a 9-page chapter on the topic. One might argue that Barclay scattered some marketing tips and techniques throughout the text, but a more substantive discussion would still be expected. The book does end with a nice bibliography of information literacy resources and an index. Overall, the book provides a useful blend of theory and practice, and time-pressed librarians who want to initiate an information literacy program will find it easy to do so with the included presentations.

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REVIEW OF: Candice M. Benjes-Small and Melissa L. Just. (2002). *The Librarian's and Information Professional's Guide to Plug-Ins and Other Web Browser Tools*. New York: Neal-Schuman.

by William (Bill) Drew

This new guide from Neal-Schuman shows how to expand the capabilities of the Netscape web browser and the Internet Explorer web browser by using plug-ins and other programs. All areas are covered including image viewers, multimedia, math and science, accessibility and staff tools. The book focuses on why these are important for libraries to consider installing. Candice Benjes-Small is a librarian at Radford University in Virginia and has previously worked as a Webmaster at the Norris Medical Library, University of Southern California. Benjes-Small has also written on web site usability testing. Melissa Lust manages the Health Sciences Library at Children's Hospital Los Angeles and has taught and presented on web authoring and site development. Both Benjes-Small and Lust received their master's in library and information science from the University of Texas at Austin.

Chapter 1, Essential Background of Browser-Extending Tools;provides a good background on the general options available in extending web browsers. It ends with a very good analysis of the benefits and problems of such extensions. It clearly defines the differences between plug-ins, helper applications, browser companions, and ActiveX.

Chapter 2, Utility Tools focuses on programs that are used to display documents created in other formats besides HTML such as Microsoft Office, Excel, PowerPoint, and Portable Document Format or PDF. The authors discuss the pros and cons of using the actual Microsoft Office software or getting read-only viewers. To avoid this problem, they suggest using the PDF file format, which will then use Adobe Acrobat Reader.

Chapter 3, Image Tools is especially valuable in that it provides an excellent summary and discussion of various image file format and viewers. The viewers discussed are AlternaTIFF, iPIX Viewer, MrSID, and Whip!/Volo View Express. The authors discuss the best uses for each viewer as well as their weaknesses.

Chapter 4, Multimedia Tools looks at probably one of the most confusing and frustrating experiences one can have on the web, viewing multimedia files. This chapter includes a very useful grid outlining the five major multimedia viewers; which are QuickTime, Shockwave, RealOne, Windows Media Player, and WinAMP; giving details on file formats, browser compatibility, cost, best uses, and more. Each viewer is reviewed in great detail. Many troubleshooting hints are included.

Chapter 5, Math and Science Tools looks at plug-ins for displaying molecular structures and manipulating mathematical equations. This chapter will be very valuable to libraries that have science and math queries.

Chapter 6, Accessibility Tools is perhaps the most critical chapter in the entire book. It examines three tools for making the web more accessible. Adobe Access plug-in creates a text version of PDF files that can then be read by a screen reader. Lens Magnifying Glass allows the user to magnify parts of the screen for better viewing. ReadPlease is a screen reader that converts text to speech. The only problem with this chapter is that the authors do not mention JAWS and other screen readers with greater capabilities.

Chapter 7, Staff Tools for Librarians could have been left out of the book and it would never have been missed. This chapter focuses on search toolbars, Google Toolbar and Yahoo! Companion, as well as two other tools that do not fit in any of the other categories. MouseTool is supposed to make the computer mouse more comfortable to use. The last tool reviewed is Pop-Up Stopper. It is used to stop second "pop-up" browser windows from opening up. There are many pop-up "stoppers" besides this one. It is not clear why this one was selected.

In Chapter 8, Strategies for Managing Plug-Ins, the authors ask several important questions here such as how will users keep track of new versions of plug-ins. They suggest selecting a few good plug-in and ActiveX sites and monitoring them from time to time. The authors also suggest several tools to help manage plug-ins. These include, Plugsy, Plug Master, and ActiveX Manager.

This book includes three very useful appendices covering file extensions, trouble-shooting tips, and an extensive webliography for locating the various plug-ins and programs. This tome ends with a very useful index to the book. *The Librarian's and Information Professional's Guide to Plug-Ins and Other Web Browser Tools* should be on the shelf of every library Webmaster and creator of content. Libraries will want to include this book in their collection as it will also prove useful to library patrons.

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REVIEW OF: Bart Brockman and Edwin Notenboom. (2003). *Testing Embedded Software*. Boston, MA: Addison Wesley.

by Ray Olszewski

The creation of software for embedded systems poses many problems different from the writing of ordinary computer applications. These differences mean that testing that software also places some extra demands on the testing and quality-assurance processes. *Testing Embedded Software* combines a general overview of testing procedures as they apply to embedded software with presentation and advocacy of a specific model of the testing process.

The term "embedded system" lacks a precise definition, but for our purposes it can be approximated as a device that contains computer components (a CPU and RAM at a minimum) but does not present itself to its users as a computer. By this standard, we are surrounded by embedded systems, including cell phones, wristwatches, modern thermostats, digital-cable-TV decoders, DVD players ... the list is too long even to scratch the surface. While these systems vary greatly in complexity, they have the common feature that their hardware and software aspects are developed together, causing the software to be closely tied to specific hardware features. Often, these features do not actually exist, except perhaps as simulated processes on a development computer, when software development starts.

The testing process advocated by these authors addresses the special difficulties of embedded systems software development by emphasizing two things: the "requirements" stage of development and the iterative nature of the interaction between development and testing. Their process, called the "TEmb method", begins with a detailed specification of the product being created, assessment of the risks associated with the ways in which it may fail, and prioritization of the testing requirements. For example, a failure that leads to death or injury (genuine concerns with many embedded systems) receives higher priority than one that involves a transient loss of function.

The authors proceed to describe, in very formal terms, a sequence of procedures for building a test team, acquiring the resources it needs, and scheduling testing in a way that interacts efficiently with the actual development process. The book then goes on to discuss many of the tools and techniques that testers might use in an embedded-software setting.

In practice, though, while the authors cover all of this material, they do not cover it very well. The extremely formal structure of the book reads more like a syllabus for a course in testing methods than a book that actually teaches one how to employ the procedures and tools it discusses. Though replete with checklists, tables and charts, the book lacks much in the way of advice to help someone organizing a testing program to overcome the real problems managers face in business settings ... tight schedule constraints, pressure to meet deadlines at any cost, budgetary limitations that limit one's ability to acquire needed tools, staff turnover,

and the general perception of the testing staff as "the enemy". Examples are scarce. There are scattered exceptions to this sketchiness - a guest-written chapter on "Mixed Signals", for example, is a good bit more practical - but they are too few to deliver any real value.

The emphasis on early specification of product features and testing requirements also seems at odds with the iterative nature of many embedded development projects, a nature that often makes both the hardware and software components of the project uncertain at the outset and subject to change as problem arise during development. My own work with (small-scale) embedded development projects has always demanded flexibility and adaptability, not rigid specification at the outset of the project.

In addition, much of the writing is simply difficult to read ... not in the sense that it is too technical, but in that grammar and diction errors are frequent. Overall, the book has the stilted quality of a report written by a committee rather than an informative explanation.

This book may have a limited audience consisting of people who specialize in developing testing procedures for embedded systems software, but I suspect that anyone sufficiently expert to find this book usable already knows most of what it contains. For one lacking experience in testing embedded software, it is not a good introduction to the area, and, in any case, its focus is unlikely to be of interest to many of TER's readers.

Ray Olszewski is a Senior Software Engineer at Protogene Laboratories, where he focuses on embedded systems development. He has also worked as a freelance computer programmer and statistician. His work includes development of custom Web-based software to support on-line research.

REVIEW OF: Rob Brooks-Bilson. (2003). *Programming ColdFusion MX. 2nd edition.* Sebastopol,CA: O'Reilly.

by Martin R. Kalfatovic

Outside of a full-fledged web content management system, dynamic website technology rides on four scripting languages: PHP: Hypertext Preprocessor (PHP), Active Server Pages (ASP), JavaServer Pages (JSP), and ColdFusion (CF). Each of these enables web developers to store content in database systems (e.g. MySQL, SQL, etc.) and through the creation of templates, generate on-demand, updateable web pages. Leaving aside the potential flame-wars that would result from a discussion of the how's and why's of choosing one of these

server side languages over another, let's assume that you have, for better or worse, hitched your website to Macromedia's ColdFusion product. Full disclosure: the reviewer is a long time user and developer in ColdFusion.

Macromedia, having acquired ColdFusion from Allaire, is also the maker of the Dreamweaver web software. The latest versions of both these products have recently brought out the "MX" version of both Dreamweaver and ColdFusion. This merger promises, and mostly delivers, a seamless integration of web development for those using these two products.

In the tradition of the O'Reilly books, author Brooks-Bilson brings excellent credentials to his topic. Author of numerous articles on ColdFusion, he is also a regular speaker at ColdFusion user groups and industry conferences. Again, like most O'Reilly books, the editors and designers have created an appealing and usable layout for the dense, code-ridden pages, an accurate and useful index, and appropriate screen-captures and other diagrams.

For purchasers of the first edition to this book, this edition is a mandatory purchase for those who have also updated their software to ColdFusion MX 6.1. ColdFusion MX introduces a number of new features. The author has been assiduous to delineate those areas in which ColdFusion MX differs from ColdFusion v.5.0 in the text. For the ColdFusion novice, Brooks-Bilson offers clear, step-by-step instructions that will enable anyone with even a modicum of HTML knowledge to create dynamic, database-driven web pages before they reach page 38. Within just a few more chapters, dynamic forms, state-maintenance, and exception handling will be added to the web-developer's quiver of site tools.

All the standard ColdFusion features are covered in ample space. In addition to covering ColdFusion basics, three chapters are devoted to database basics and skills. Though focusing on SQL as the primary database service used with ColdFusion, users of other databases (e.g. MySQL) will not be confused by the discussion. Security, an increasingly vital topic for any web developer, is allotted an entire chapter. Basic security features available to ColdFusion users are covered as well as the, new to ColdFusion MX, Security Framework. For this reviewer, the "what I learned" aspect of this title was the "Graphing and Charting" chapter. Though available in other versions of ColdFusion, the author's clear presentation of the methodology for creating charts and graphs using ColdFusion was a special selling point of the work.

Of special interest for web developers is the increased support for XML and Web Services with ColdFusion MX. Brooks-Bilson offers full chapters covering how ColdFusion MX handles both these. For XML developers, ColdFusion MX will not replace a full-fledged XML development platform; however, as a first start or supplement to a more robust system, this work clearly covers how to implement XML within the ColdFusion environment. Likewise, for the more advanced user, the currently hot topic of web services (four word definition: a remote procedure call) is covered in a clear and succinct manner that will allow developers to take advantage of the Web Services Descriptive Language (WSDL).

Lastly, Brooks-Bilson devotes an entire chapter to the interaction of ColdFusion MX and Flash. The 2002 launch of the "MX" Macromedia line offered the promise of a full integration of the Macromedia suite of products. Flash, has become the de facto web application for multimedia. The ability to integrate dynamic content using the Flash ActionScript in combination with ColdFusion through the Flash Remoting tool will make for an even more animated web world. Though the author rightfully gives short shrift to the actual creation of Flash elements, for the experienced Flash creator, the ability to integrate dynamic content into their productions will be an added bonus.

All this said, how does this book compare to the works of Ben Forta? Forta, a key developer of ColdFusion, is co-author of two essential works for anyone working with ColdFusion: *Advanced Macromedia ColdFusion MX Application Development*, *Third Edition* by Ben Forta, et al. (Macromedia Press, 2002) and *ColdFusion MX Web Application Construction Kit, Fifth Edition* by Ben Forta, et al. (Macromedia Press, 2002). The former being the core work and the latter an adjunct for more advanced development.

For most developers, either of these books will suffice as both a starting point and as a ready-reference for ColdFusion applications. With the Forta and Brooks-Bilson works weighing in at over 1,000 pages each, there is little to differentiate them in sheer word-count. In choosing between them, those familiar with the O'Reilly style or beguiled by the now often imitated cover graphics, *Programming ColdFusion MX* is a solid purchase.

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