

Book Reviews

Creating Web-Accessible Databases: Case Studies for Libraries, Museums, and Other Nonprofits. Julie M. Still. Medford, NJ: Information Today; 2001; 184 pp. Price: \$39.50. (ISBN: 1-57387-104-4.)

Web-based technologies provide users and information professionals with powerful and flexible tools for information dissemination. The World Wide Web allows libraries and museums of all sizes to share their collections with the world 24 hours a day. However, the reality of transforming home-made resources into Web format is often a frustrating and time-consuming process. This book offers a glimpse into the creation of locally produced Web-based resources by a variety of groups.

There are 12 chapters written by people involved in different stages of Web database production. Still selected authors based on "a mixture of excellence of product, author experience, convenience, and willingness to participate." The first eight chapters are case studies, while the last four chapters cover various issues of Web database development. Still instructed the authors to write casually and to focus on the process of developing a Web database rather than on the technology used. Authors were also provided with a list of issues to consider while writing. Most chapters are written in first person, and include a balance of the difficulties encountered during development as well as the solutions to various problems. The result is a collection of highly readable and interesting essays on creating and maintaining Web databases.

This book is not, however, a step-by-step how to guide for creating Web databases. The degree of technical depth included in each chapter varies depending on the expertise of the author. The chapter authors take Still's instruction to heart, and successfully focus on the aspects of process rather than hardware and software requirements and issues. The book reads like an ongoing discussion between friends over lunch, which makes this work a must-have for Web developers of all levels.

The book's format adds to its timeliness and value. The various authors provide the reader with a broad view of the Web development process. This perspective is particularly evident in the project history discussions and project selection criteria. For instance, some projects began because a gap in resources was identified, others sprang from a need to provide access to a growing collection, and some began in an effort to keep up with everybody else. The book is not divided topically, but the chapters are well organized, divided into sections, and flow together nicely. The authors offer readers the benefit of their mistakes and successes they experienced in their Web database projects.

The first two chapters are case studies from Rutgers University. Ronald Jantz explores ways the Web provides librarians an opportunity to use their unique skills to create and publish high-quality sites. The Scholarly Communication Center (SCC) of Rutgers Library brings teaching faculty, librarians, and students together in a dynamic sharing of knowledge, expertise, and skills. Jantz spends considerable time discussing the technology the SCC uses to create various Web-databases as well as the process used to

select projects. The emphasis for groups wishing to start a new project is to develop a "reusable" technology. Jantz explains that using the same platform provides the user with consistency, and saves the developers time and money.

The second case study from the Rutgers-Camden campus provides the reader with a practical example of Jantz's database technology. The Robeson library developed a ProCite database of a local history newspaper clippings collection, which provided their users with a searchable electronic locally loaded database. As the popularity and usefulness of the Web grew, the library wanted to publish the database on the Web. Because the Robeson library lacked the appropriate technology to launch their database, they contacted Jantz, who offered to provide server space and his "reusable" technology. Together, these two examples from Rutgers provide the reader with an excellent example of how, once developed, the electronic structure for a Web database can be successfully applied to a project.

Although the Rutgers examples are about providing access to print sources, the next pair of chapters discuss effort to create access for full-text electronic resources. The authors of Chapter 3 have created two sites for online books: *Women Writers*, maintained by Mary Mark Ockerbloom, and *The Online Books Page*, maintained by John Mark Ockerbloom. Along with selected out-of-print books, both sites include information on authors as well as links to other Web resources. The Ockerblooms do an excellent job of describing their motivation to begin their projects as well as their plans to expand. One particular point made by both is the importance of volunteers. Even people who casually use an e-mail link to let the database maintainers know of dead links, new Web sites, or other suggestions have played an important role.

In the same spirit as the Ockerblooms' databases is the history database discussed in Chapter 4. Inspired by the Library of Congress National Digital Library, Professor Kathryn Skylar developed *The Women and Social Movements in the United States, 1830-1930: A History Web Site*, to help fill a void of women's history on the Web. The project began with an assignment option to her senior seminar class. Skylar instructed her students to find 20 primary documents on the same topic, write an introduction, annotate the documents, and put what they found in Web format. From this modest start, the site now contains over 300 primary documents and 27 student projects, and received numerous grants and national recognition. This example in particular demonstrates the scholarly validity and teaching potential of the World Wide Web. Students and faculty successfully brought sound historical research and technology together in a collaborative instruction environment.

The Virginia Digital Library Program provides a look at a large-scale Web initiative. Elizabeth Roderick, manager of the program, discusses the planning of the project step by step. Roderick stresses that this program is not a preservation effort, but an access effort. For instance, the project is uniquely important to visually impaired users. Current technology allows users to magnify and sharpen hard to read illustrations and documents. The library, however, is concerned about the permanence of electronic storage as well as the ability to transfer formats as technology changes. Roderick also discusses the effects of the project on the staff of the Virginia State Library.

One of the best case studies is ABC-CLIO's conversion of *America: History and Life* and *Historical Abstracts* to a Web-based interface. This well-written chapter explores how a commercial database vendor created a highly functional Web interface from a text-based database. Vicky Speck's writing style smoothly takes the reader through ABC-CLIO's planning and implementation process. One of the most interesting aspects of this project is how the development team was selected. Speck's discussion on weighing the cost of in-house and outside developers is especially good. Although ABC-CLIO is not a nonprofit, library, or museum, librarians will find Speck's discussion of the conversion of a commercial database very interesting in light of their own Web initiatives.

The previous cases are examples of migrating locally developed collections into Web format. Chapters 7 and 8, however, are very different examples. Chapter 7 discusses the use of an already established database, Advanced Book Exchange, for out-of-print books. This Web service allows individuals to create a database of books they own and then upload it to the Advanced Book Exchange's Web site, where buyers can browse and purchase books. 21 North Main, Inc., covered in Chapter 8, is a similar service geared toward librarians. Both chapters are well written, and provide good information on the use of these Web resources. However, the topics do not fit with the title or stated purpose of the book, which may cause some confusion. Like ABC-CLIO, neither site is from a library, museum, or nonprofit, but the work would not be complete without a discussion of this kind of Web database.

The last four chapters deal with different Web database issues. The first two issues discussed are the nature of the Internet patron and the price of simplicity; the last two chapters cover the use of metadata and XML. In Chapter 9, Anne T. Keenan from the Blair Public Library offers a unique perspective on the patrons who use the library only for Internet access. Keenan identifies two kinds of Internet users: those who spend a good deal of time browsing their favorite site and those who want information on a specific topic. The chapter then segues into a discussion of Web site and database design and evaluation tips. Keenan provides some insight into Internet users, but does not offer much new in the area of design and evaluation.

Chapter 10 is an interesting and well-written exploration on the cost of simplicity. Laura B. Spencer warns of two problems in patrons' perception that occur after the migration of a Web-based database: the collapse of space and the compression of time. Spencer argues that Web-based resources distort the users' perception of the library as a place and the time involved in responsible research. For instance, most databases provide partial information about and the location of an item, so students must be able to move from the electronic world back into the physical.

Finally, the work concludes with an explanation of where Metadata and XML fit into the Web database picture. One of the most amazing examples in these last two chapters is the searchable, full-text, Old English *Beowulf* site. Aurora Ioanid and Vibiana Bowman skillfully demonstrate the problems associated with creating a searchable database with an evolving language. Along the same lines, XML allows database compilers to designate searchable fields in a Web format. Both chapters are fairly technical, but provide an important facet to the work as a whole.

Importantly, the projects covered are currently launched Web databases. Each chapter provides URLs to sites as well as e-mail addresses so the reader can explore the sites discussed. Reading about a project and how it developed is a useful exercise, but actually visiting and searching the developed Web site gives the work added depth and interactivity. The heart of the book is the first five chapters. These case studies are from educators, people who deal with the public on a daily basis, who may or may not be programming literate, but who are trying to provide the best service they can to their students, faculty, and community.

Overall, this collection fills an important gap in information science, and will hopefully spur the creation of useful Web databases as well as other works on their creation. The target audience for this work is broad. The book covers a number of different kinds and size institutions and projects. Further, the focus on the process of creation rather than the mechanics makes this work appropriate for someone just beginning to think about a Web project, as well as for those in the midst of or at the end of a project.

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Community Informatics: Enabling Communities with Information and Communication Technologies. Edited by Michael Gurstein. Hershey, PA: Idea Group Publishing; 2000; 596 pp. \$139.95 (ISBN: 1-878-28969-1.)

New technologies often tend to bring along a wave of optimistic social expectations and information and communication technologies (ICT) are not an exception. For a long time we were assured that the information revolution would change every aspect of social life. Today we realize that these expectations are too high and that new information technologies, similar to other technological innovations, are only tools and it is society that has to decide where and how to use them. As one of the authors of *Community Informatics* summarizes, "the dust settles over the hype of information and communication technologies" (Fortier, p. 451). At the same time, we can see that many core supporters of ICT turn their attention from theory to real life trying to answer the question, how information technology can be used to address political, social, economic and environmental problems, with communities as the hub. Explaining such a turn, the editor of the volume says, "Physical communities continue to provide the context in which people raise their families, educate their children, ensure their health and well-being, conduct their businesses, tend their surroundings, and influence the ongoing management of their civic affairs" (Gurstein, p. 3).

The authors of *Community Informatics* come from various fields and disciplines, and often hold varying viewpoints and perspectives. *Community Informatics* puts together the discourse of "information scientists, computer scientists, political scientists, sociologists, community planners, social and regional development specialists, urban planners, . . . journalists, environmentalists, [and] political activists" (Preface, p. i). What unites all of the twenty-seven contributions and forty-two contributors to this book is a desire to defend and preserve community, and to empower and link it with the new computer-based information technologies. That is why they gather their voices to shape community informatics (CI) as an area of research and practice of an emerging discipline. "Furthering the well being and welfare of a community through the development and use of ICT can . . . be seen as a basic aim of CI" (Pierson, p. 252). Regarding methodology, contributors to the volume examine community technology problems from a variety of perspectives, including economic, political, cultural, sociological, communication, and international, all dependent on their philosophical or disciplinary orientation. The interdisciplinary character of *Community Informatics* is definitely a plus.

The volume under review is well thought-out and well organized. In the preface, the editor explains the principles of organization and provides an overview of the sections. After reading *Community Informatics*, one can propose an alternative title,

“Community Informatics: Theory and Practice.” In essence, this review attempts to assess the authors’ input to both theory and practice of community informatics.

It is very important for every emerging discipline to describe its territory. In this case, the starting point is how CI defines informatics and explains the concept of community. Informatics is viewed as the application of technology in a community setting, or “the capacity to act on and through the technology with which one is working” (Preface, p. i). There are no disagreements among the contributors regarding this. One may also add that the word “informatics” is not “exotic,” as the editor states, but just a British acronym for the term “information science.” However, that is not the case with community. Even the authors acknowledge: “The concept of community is notorious for being commonly understood by the majority of people whilst being universally indefinable by academics” (Loader, Hague & Eagle, p. 84).

The book recognizes community as a “web of social relations and potentialities” (Schuler, p. 187), and a virtual community as an “abstract information-theoretic construct generated by the use of ICTs” (Baker, p. 106). However, throughout the volume there is no unanimous approach to the typology of communities and how ICT impacts them. There are no definitive answers to these essential questions. Communities are divided into physical or geographical, and virtual (Gurstein, pp. 2–3; Schuler, p. 188); or into geocommunities, communities of interest, communities of commerce, and virtual or digital communities (Beale, pp. 54–56). However, neither classification includes a community which shares a common history, or a community which is defined by common participation, social status, or condition. This issue should be addressed more vigorously since there is nothing more practical than a good theory. For example, while describing a CI case study one of the authors identifies the difficulty in defining the community in the project (Halaska, p. 520). On the other hand, the book starts a well-timed discussion about a vision of a new community in the information age where ICT technologies will play a constructive role (Schuler, pp. 174–189).

From the contributors’ viewpoint, CI is a strategy that links economic, political, and social development of communities with the advancement of the newest electronic technologies. The ultimate goal of CI is to strengthen local communities and society as a whole by enabling communities with new opportunities presented by the progress of information and communication technologies. The term “community informatics,” according to the editor, signifies the use and application of technology in real life and encourages action by providing resources and tools through ICT. The book explores how ICT can help communities around the world achieve their goals—economic, social, political, and cultural. It talks about rebuilding the community through broad participation of its members with the help of computer technology that “should be open to citizens of all races, economic classes, ethnic origins, religions, genders, ages, and sexual preferences” (Schuler, p. 188).

Community Informatics not only defines the subject of CI but also examines how CI addresses major theoretical problems inherent in ICT. One of the most vital topics is the assessment of the overall impact of technology on communities. CI rejects the technological deterministic approach and suggests that communities can neutralize negative trends and shape technology for its own benefit (Slack, pp. 494–495; Loader, Hague & Eagle, pp. 100–101). Furthermore, CI scholars argue that ICT can help communities reestablish their functions in society and overcome the isolation of economically, socially and spatially marginalized groups, particularly the women and young people, the elderly, and the physically disabled, in urban and rural environments (Colle, p. 429; Gurstein, pp. 9, 20–21). Several contributions to the book are dealing with an important topic of a “digital divide,” or division between those who have access to the new information technology and those who do not (Fortier, pp. 451–452; Slack, pp. 494–514).

Without any doubt, local communities may help to bridge this dangerous gap that can lead to more economic and social polarization.

Further, the development of ICT raises a question about the so-called “electronic democracy,” or the means and ways of increasing political participation in community by broadening the information exchange, stimulating public debates, establishing communication links between the citizenry and the bodies of governance, and voting. The great potential of ICTs for optimizing the democratic process in community is promising (Pierson, pp. 251–274; de Cindio, pp. 213–231; Finquelievich, pp. 232–250; Ranerup, pp. 359–379). Education and learning, creating and preserving community memories, cultural and historical identity are other important applications of ICT in community setting (Beale, pp. 68–71; Turk & Trees, pp. 339–358; Agostini, Giannella, Grasso, Koch & Snowdon, pp. 380–403). Finally, CI has a potential to become one of the major forms of academic-community partnership (Collins, pp. 404–413; Halaska, pp. 516–538). This could be a topic for the next volume of *Community Informatics*.

This timely book is of interest not only to academics, students, and policymakers but also to the general public. *Community Informatics* maintains a good balance between theory and practice and is a treasure chest of ideas, models, and real life examples for community activists and everybody involved in community-oriented work as well as ICT. For instance, among interesting experiences of CI applications is the history of creating an online community network in Seattle, USA (Schuler, pp. 182–187) and the spread of community networks and community technology centers in the USA (Miller, pp. 190–212). The community technology center movement that started with the Cleveland FreeNet and Harlem Community Computing Center in the 1980s, now includes more than 3,000 community centers which provide public access to communication technologies such as computers, the Internet, digital media, and even cable television (Miller, 192). The use of Geographic Information Systems (GIS) by communities in Germany demonstrates how a computer-supported community design process can be successfully applied to solving problems of urban development (Pipek, Märker, Rinner & Schmidt-Belz, pp. 539–560). Interested readers will find many other examples.

An asset of this book is that it is written in the tradition of critical thinking. Addressing the problems of ICT’s impact on community and society, the authors do not try to avoid examining the possible negative consequences of the development and implementation of ICT (Fortier, pp. 446–469; Schuler, pp. 174–189; Gurstein, pp. 20–21). *Community Informatics* examines key public interests and concerns about the future of community life in the information age. It raises theoretical questions and contains a wealth of practical experience on how various community organizations have tried to answer challenges of our time through harnessing the wild horses of ICT and locking them into a community barn.

Another strength of this book is its novel approach, shared by most of the authors, towards examining the effects of the ICT revolution from within a community, or a bottom-up perspective (Cawood & Simpson, pp. 151–172). However, not every chapter follows this pattern. Even though pages discussing the introduction of computer-based information technologies in the developing countries contain a wealth of material, they divert the reader from the mainstream direction of the debate and present a top-down perspective. In addition, there is a disparity between information structures in communities in various parts of the world. For example, in North America community cable television movement has started to secure public access to TV programming and channels (Miller, pp. 204–208). At the same time, in developing countries access to telephone communication is still an issue (Colle, pp. 419–420). Therefore, the degree of difference has to be a constant in CI methods of analysis.

Everyone will benefit from community informatics as a new branch of knowledge and teaching because everyone is a member of some sort of community, whether physical or virtual. However, in order to be successful in academia and society, this emerging discipline, from the very beginning, needs to define more thoroughly its subject, theory, methodology, and most importantly, clarify the terminology. The language must be simplified to attract nonacademic readers and allow communities to appropriate CI recommendations.

In conclusion, this book is obviously greater than a sum of its chapters. In a rare occurrence academic interest and public need come together. It is the rapid development of technology that leads to the growing public concern about the fate of community. People need to both develop technology and preserve a sense of community. Contributors to this volume tried to address this pressing issue and give us sound advice as to how it can be resolved. This alone makes *Community Informatics* a book to read.

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Academic Libraries as High-tech Gateways: A Guide to Design & Space Decisions. 2nd edition. Richard J. Bazillion & Connie L. Braun. Chicago, IL: American Library Association; 2001; 250 pps: \$55.00 (ISBN 0-8389-0792-X)

Bazillion and Braun address the design and planning problems faced by libraries in response to rapid technological changes. They declare: "In responding to rapid technological change, library designers face a challenge: the need to plan buildings that are flexible enough to accommodate a future governed by information technology" (p.1). Such a future is largely unpredictable, and furthermore technology normally becomes quickly outdated. The principles concerning library-building planning should, however, still feature. It is on these principles that Bazillion and Braun focus their text, and their plea for flexibility of space, infrastructure and functionality: "As long as designers strive for and achieve the greatest possible flexibility of space, infrastructure, and functionality, their buildings should be able to accommodate successive generations of technology. If we cannot accomplish this much, then perhaps the library as a physical entity indeed will be superseded by the Web" (p. vii).

The danger of prediction is fully acknowledged. In sharing their ideas and visions, the authors explicitly admit that designers have no definite idea what the future will hold: "Designers, therefore, are obliged to create buildings that can make a graceful transition from their traditional role to one that cannot yet be clearly perceived" (p. 13). Regardless of how difficult or insufficient it may be to make assumptions about technological development, it remains an important component in planning a library building. Such predictions should be made with the utmost care and it is in this sense that Bazillion and Braun make a great contribution through their numerous examples of sound practical advice.

Both authors have extensive practical experience in the design of high-tech library buildings and in library instruction. They also have studied libraries from around the country in order to determine the best ways to streamline access to information.

Bazillion and Braun's point of departure is that access has superseded ownership. Although there are many arguments against

the physical existence of libraries, or whether they will be succeeded by virtual libraries, they argue that today's academic libraries will in fact be hybrid libraries: physical space combined with cyberspace.

Librarians should also be clear about the role of the library. This book places a strong emphasis on the teaching role of academic libraries, and the library as the local hub. A library is not just a mere physical structure designed to offer comfort. It is also designed for people and has to consider the needs and preferences of the users. In implementing the design the effect on people, in this case the library staff members, should also be considered.

Apart from the role of the library, the direction of technological and economic trends in the publishing and computing industries should also be considered. The functional relationships among several purposes that can enhance a library service, and where IT features, should also be defined. Some of the most recent influences on academic libraries, for example, include laptop-computer leasing programs for both students and faculty, electronic classrooms, information galleries equipped with high-end computers, and faculty development centers whose purpose is to promote innovative teaching via integration of technology.

Chapter 2 deals with the design of the "intelligent library." It focuses on the definition of the intelligent building, the features of the intelligent building, the consideration of the Americans with Disabilities Act, and how to bring this all together in the planning process. An "intelligent building" is defined as one that is comfortable, attractive, and functional (p. 40). It is also "... one in which computerized systems control security, lighting, and air-handling functions. Sensors allow the building to monitor its own condition, an especially important feature in earthquake zones" (p. 41). The building infrastructure covers aspects such as the use of computer-aided design, flexibility, modularity, the organization of the interior space, networking, the use of special facilities, the choice of building fabric, interior design, comforts and easy access. The occupation and commissioning of a new building are dealt with in chapter 5. This chapter includes aspects on the planning of the opening day, organizing and moving, testing the building, commissioning the building, operational policies and procedures. It also considers the political dynamics of a new building and the creation of a new campus culture.

Throughout these chapters numerous incidences of practical advice can be spotted, for example on the choice of an architect, the flexibility of space and the extensiveness of the electric power and communications infrastructure. A prominent feature in this book is the importance of people in library building planning. This includes the impact change may have on people; for example they also consider psychological factors involved in moving.

I recommend this book as essential reading for anyone involved in library-building planning who has funds available for networking and electronic libraries, and where the institutions support users with computer access. The authors succeed very well in their goal of offering a guideline for the design of libraries that can serve as high-tech gateways to electronic information as well as the development of information skills. The advice in this book will certainly be of tremendous help to librarians working for well-funded institutions. Librarians finding themselves in less fortunate circumstances (and this would include most of us) should also find the publication stimulating reading, abounding with innovative ideas—definitely something to strive for.

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Editorial Peer Review: Its Strengths and Weaknesses. Ann C. Weller. Medford, NJ: Information Today; 2001; 342 pp.; Price: \$44.50. (ISBN: 1-57387-100-1.)

Editorial peer review is essential to the publication of articles in scholarly journals for most disciplines. Although peer review evolved to become standard operating procedure for most scholarly journals during the past century, the history and development of the peer review process has not been well known or documented. Taking into account changes, such as the relatively recent phenomenon of electronic journals, the author conducted a systematic review of published studies on the editorial peer review process and examined the editorial peer review process to identify where it added value to scholarly communications and what elements might be changed or eliminated in electronic environments. The systematic review of existing literature is the foundation and most productive part of this book. The author presents a progressive outline of the peer review process in 10 chapters.

The history of the peer review process is outlined in Chapter 1. Although the author notes that the earliest form of prepublication review dates back 300 years to the *Philosophical Transactions of the Royal Society*, scholarly journals gradually incorporated peer review as a process vehicle for adding credence to publishing between 1900 and the 1960s. Much of the pioneering use of peer review originated with early medical journals (i.e., *British Medical Journal* and *New England Journal of Medicine*). This chapter also examines the literature on peer review, and provides the results of literature searches performed on 19 major databases pertaining to peer review. An accompanying figure shows a strong correlation between the number of peer review citations by decade (1920s–2000) found in the literature search and the use of peer review at any given time. The author devotes limited discussion to the International Committee of Medical Journal Editors, which has supported and researched issues related to peer review. Finally, the author presents an interesting table that lists journals whose editors have written about their own peer review process. In the second chapter, the author examines studies on manuscript rejection and how it affects scientific communication and the publication of acceptable material. This examination incorporates articles on manuscript rejection dating to the mid 1940s, and shows how journals established and continue to use rejection standards. In that regard the author develops several interesting tables. One ranks editors' (from nine different biomedical and business type journals) reasons for rejecting manuscripts since 1967, another presents editors' actual reasons for rejecting manuscripts, and yet another illustrates rejection rates according to discipline.

In the two subsequent chapters, the author examines the peer review process through the viewpoint and interest of editors, editorial boards, and authors. Chapter 3 deals with editors and editorial boards. The author cites the viewpoints of editors of well-known scientific journals and reviews the results of studies of such individuals and boards representing social science, nursing, and biomedical journals. It is not clear why the author chose to describe the literature on nursing peer review separate from that of biomedical journals. Also examined are biases that editors bring to the peer review process. Based on this the author draws general conclusions about editors and their roles, but decides that "what is and what is not peer reviewed needs more investigation" (p. 111). Chapter 4, although bleakly titled "The Authorship Problem," examines, from the author perspective, peer review issues that that he or she has some control over (i.e., journal selection, value of peer review to the author). In addition coauthor issues are examined as well. A fascinating point here is that in recent years, a mathematical model to assist author's select appropriate journals was developed. Fortunately, it seems, the model was never tested—to do so would abdicate personal choice in favor of order without benefit of individuality.

Chapters 5 through 9 relate directly to the core issue of peer review and examine the role of reviewers, reviewer agreements and biases, statistical peer review, and peer review in the electronic environment. According to the author, the role of reviewing appears straightforward; however, the process is complex. In support of this assumption the author examines the literature on reviewer selection, reviewer characteristics, reviewer guidelines, and the value of reviewer reports. Included are interesting tables that illustrate reviewer's workloads as well as the relation between the status of reviewers and the quality of reviews, among others. In the chapters on reviewer agreement and reviewer biases, the most esoteric of the book, the author examines the literature on how reviewers go about their work and the biases they bring to the review process. Surprisingly, there have been several studies on reviewer agreement, and the author analyzes these, even discussing the use of statistics to analyze studies of review agreement (Finn's r , Kappa, Kendall's coefficient, intraclass correlation coefficient, and single reviewer reliability). The author concludes, and rightly so, that "the most important considerations are not that reviewers disagree, but the reasons for the disagreement" (p. 200). Regarding review biases, the author's discussion revolves around two potential reviewer biases—that in favor of a known author or prominent institution. She also examines four broad categories of reviewer biases (personal, methodology, conclusion, and prestige), and also touches on gender and ethnicity bias as well as the issue of reviewers that sign their names. Despite the studies of reviewer bias, it is difficult to measure such bias due to human characteristics. Using statistics during peer review is the subject of Chapter 8. This relatively recent phenomenon in scientific publishing dates to the 1930s. The author discusses editorial use of statistical reviewers, statistical review of manuscripts and published studies, complexity of statistical tests in published studies, as well as the interesting topic of publication bias, which refers to the tendency to publish works with statistically significant results. Unlike other book chapters, the author notes the data reviewed makes the irrefutable argument that every manuscript containing statistical analysis should be subjected to statistical review. Not surprisingly, Chapter 9 is the shortest chapter in the book. This reflects the newness of peer review in the electronic environment. The author examines the brief history of electronic journals, from its first conceptualization in the late 1970s, to the abundance of journals on the Internet, and the burgeoning popularity of preprint servers that allow authors to post "works in progress." Examples of electronic journals are described, including *Earth Interactions*, *Medical Journal of Australia*, and *Psycoloquy*. A key conclusion of this chapter is that the standard peer review process has not changed significantly from print to electronic versions of journals. However, the author tempers this with the observation that studies have not been conducted that thoroughly investigate models of peer review in an electronic environment. Unfortunately, the author only briefly touches upon how professional organizations view peer review in the electronic environment. She does mention the International Committee of Medical Journal Editors, but does not discuss the peer review positions of such organizations as the Council of Science Editors, World Association of Medical Editors, Open Archives Initiative, the Society for Scholarly Publishing, and The Association of Learned and Professional Society Publishers, among others. It should be interesting to see if any others take up the mantle and review the peer review process as it applies solely to the digital domain in the coming years.

In the final chapter of the book the author states that *all* identified studies on the editorial peer review process published prior to 1998 were systematically reviewed. That was clearly a daunting task, however, not surprisingly, she notes that the literature on peer review found strengths and weaknesses in the process, with some strengths being irrefutable and independent of data derived from any studies. Because the author is someone who specializes in researching the peer review process, she calls for

rigorous standards that must be adhered to by others such that useful dialog and meaningful guidance are available to editors and peer reviewers. She outlines several areas for future research, particularly the correlation between the quality of published articles, manuscripts, statistical analysis, and reviews and adherence by editors, authors, and reviewers to guidelines and policies. The author also provides a dozen recommendations for improving studies of editorial peer review. Taking into account the enormous quantity of literature reviewed by the author, the not unreasonable conclusion that editorial peer review is essential to scientific and scholarly communication is reached.

As one who has been subjected to peer review and who has also participated as a peer reviewer, this book has found a permanent slot in my technical library. This book is not only a very thorough review of the history of the peer review process but also it is the only thorough treatment of the peer review process. Moreover, irrespective of the discipline, this book is the best example of the systematic review of existing literature that this reviewer has

witnessed. Beyond that, the author makes candid conclusions and provides thoughtful ideas for enhancing and furthering the critically important field of peer review. Perhaps the most useful element of this book are the many tables that illustrate the results of the author's review of published studies on the peer review process. Despite all the author's excellent research and call for additional study, she makes the valid point that "peer review is inherently a human process, subject to the imperfections of human behavior" (p. 238). Statistical, sociological, and other external forces may be utilized to create a more "fair" or "equitable" peer review process, but ultimately, the human element of the process will be the most variable and interesting.

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