Information Technology for Management: Making Connections for Strategic Advantage

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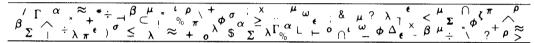
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Book Reviews

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The range of books reviewed is wide, covering theory and applications in operations research, statistics, management science, econometrics, mathematics, computers, and information systems (no software is reviewed). In addition, we include books in other fields that emphasize technical applications. Publishers who wish to have their books reviewed should send them to Professor Benjamin Lev. We list the books received; not all books received can be reviewed because space and time are limited. Those who would like to review books are urged to send me their names, addresses, and specific areas of expertise. We commission all reviews and do not accept unsolicited book reviews. Readers are encouraged to suggest books that might be reviewed or to ask publishers to send me copies of such books.

TURBAN, EFRAIM; McLean, EPHRAIM; AND WETHERBE, JAMES 1999, Information Technology for Management: Making Connections for Strategic Advantage, second edition, John Wiley and Sons, New York, 791 pp., \$90.95.

Criteria-based evaluation of professional publications is a topic in all of my courses. I want my students to be skilled in the technique to prepare them for lifelong learning. I encourage them to develop their own criteria, to go beyond "this was a good web site" or "this was a good arti-

cle," to define more specifically their measures of goodness. Ultimately, they distinguish indicators of credibility, usefulness, and interest.

My criteria for selecting a textbook are essentially the same, but the indicators are different than they might be for a web site or a journal article. While I still consider the authors' credentials, the publishing source, and the references, the credibility of an information-technology-oriented textbook for me is manifest in its currency and in its use of real-world examples. In particular, globalization, electronic com-

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merce, knowledge management, enterprise resources planning systems and the Internet are topics of current interest. Turban, McLean, and Wetherbe address all these, with particularly substantial coverage of electronic commerce and knowledge management. The global index at the back of the book highlights the many illustrations used to provide a global perspective. The book is filled with examples, including the opening cases, the "IT at work" boxes, the Internet exercises, the end-of-chapter minicases, and the end-of-section cases, to give the student plenty of exposure to the real world of information technology.

Once a textbook passes the credibility screening, I consider its usefulness, perhaps the most important criterion in textbook evaluation for me. First I consider the fit of the content with the topics and audience of the course. Information Technology for Management is divided into five sections. In Part 1, "IT in the organization," the authors describe the environment of today's organization, provide the basic terminology of information systems, and establish the strategic framework, based on Porter's models. In Part 2, "Networks and IT," they give an overview of networking applications in general and electronic commerce in particular. Part 3, "Using IT" covers different types of information systems, including transaction processing, decision support, data warehouses, and virtual reality. Part 4, "Managing IT," includes planning at different organizational levels, justifying and evaluating information technologies, developing systems, and managing information resources. Part 5 contains the technology guides, one each for hardware, software,

data and databases, and telecommunications and the Internet. (These guides are not as detailed as O'Brien's [1997] *Introduction to Information Systems*, but they provide solid overviews of the technologies.)

I am considering Information Technology for Management for two different courses. The first is "Technology and information management" in a master's degree program in technology management. The students are predominantly technical people seeking managerial skills and an update on emerging technologies. They do not need a conceptual foundation in information technologies. For them, several parts of the book would be useful. For example, chapter 4 "Business process reengineering and information technology" concerns the role of information systems in current organizational developments, for example, business process reengineering, virtual corporations, networked organizations, and total quality management. Part 4 strikes the nerve of many IT management issues and provides the basis for rich class discussions, something missing from a more application-systems-oriented textbook, such as McLeod's [1998] Management Information Systems.

The other course for which I am considering this book is "Management information systems" in our executive MBA program. These students come from more diverse backgrounds and tend to lack the fundamental computer concepts. They are interested in a better conceptual understanding and a more strategic view of the technology. While Turban, McLean, and Wetherbe do address computer concepts with the technology guides, they are dry

reading and do not include exercises. The authors address the strategic aspect in chapter 3, "Strategic information systems" and chapter 12, "Planning for information technology and systems," but the book is more oriented toward information-technology managers than to general or functional area managers. My current choice, Laudon and Laudon's [1999] Essentials of Management Information Systems, still seems more appropriate for this course.

Another indicator of the usefulness of a textbook is the supplemental material that comes with it, for both instructor and student. Turban, McLean, and Wetherbe provide extensive resources: an instructor's manual, a test bank (printed and electronic), a video series, presentation slides, and a textbook-specific Web site, in addition to a Web site sponsored with the *Wall Street Journal*.

Most intriguing is "A Web-based case, The Virtual Company, [featuring] Internet and intranet sites for a simulated company that produces snowboards. Students are 'hired' by the company as consultants and given assignments which require the students to use the information . . . to develop the solutions and produce deliverables to present to the company" (p. viii).

Of these, the only supplemental resource I was able to examine was the Web site at http://www.wiley.com/college/turban2e. After slowly winding through promotional information, I found a list of links supporting the cases and examples for each chapter. The student resources section contains the virtual company case study and additional cases (requiring the Adobe Acrobat reader). The links for the "interactive" Internet exercises lead to

Adobe images of the pages in the text-book. The web site also contains exercises and illustrations to support the technology guides. Perhaps most useful to students would be the self-test exercises, a reportedly beta version of on-line quizzes, for a study guide—although I could not try this area without a password. The instructor resources section of the web site contains downloadable versions of the supplemental resources, as well as the same elements as the student section.

A credible textbook may be useful, but to be really worthy of selection, it should be interesting. If students are not interested in the readings, they will not retain the material (and they might not even read it!). Certainly, the use of real-world examples contributes to the interest value, as do photographs, figures, organization, and layout. Information Technology for Management is filled with colorful figures. With somewhat similar topics, it seems more logical in its organization that Martin et al.'s [1999] Managing Information Technology. However, the presentation of the text is distracting, with different margins and type sizes for different sections. It is hard to know whether to follow the main text or read the figure or segue to the example. Margin notes are used to highlight applications; I would like to see definitions highlighted as well. The book is very dense—Wiley could have allowed more white space for readability and note taking.

Ultimately, the decision about adopting a textbook depends on its marginal utility—is the added value of adopting the book worth the incremental cost of the course changes? For my aspiring technol-

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ogy managers, this book has the substance to make the change worthwhile.

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HARNETT, DONALD L. AND HORRELL, JAMES F. 1998, Data, Statistics, and Decision Models with Excel, John Wiley and Sons, New York, 605 pp., \$93.95.

It has been very pleasant to read traditional concepts in statistics and operations research explained in a masterly way in this book. Harnett and Horrell develop no new topics, but the mode in which they present them is genuinely new. I will focus on two fundamental features. First and foremost, this is a teaching volume, and that is why the authors employ the spreadsheet Excel to show the book's contents in an easy and handy manner. Second, they try to explain the key issues related to statistics and operations research in a straightforward style. To analyze this work appropriately, it is necessary to pinpoint many crucial aspects.

According to the preface, the target

readers are MBA students, but I consider the book to be suitable for undergraduate students as well. The interdisciplinary nature of Harnett and Horrell's approach is a decisive advantage. Their general purpose is to sketch out a framework between decision models and the Excel spreadsheet of Microsoft Office 97. Furthermore, they contribute the Kadd add-in, which helps users of Excel to perform a number of the tedious calculations Excel does not handle. They clearly explain the virtues of Excel, helping readers to comprehend the statistical and decisional contents. Moreover, they give an Internet address (http:// www.wiley.com/college/) that provides all of the Excel figures in the book and overheads or transparencies with Power-Point summaries of the chapters.

The book has 12 chapters, two appendices, two floppy discs, an answer section containing the answers to even-numbered problems, references, and an index. The chapters cover a variety of topics: discrete probability, binomial and normal probabilities, sample design, hypothesis testing, quality control, forecasting, analysis of variance, simulation and linear programming. The authors' originality is their presentation of decision making in so many different arenas. The chapters are well structured. In explaining statistical theory, the authors give many examples; the book is eminently practical. Chapters conclude with summaries and, sometimes, with supplements. The exercises and problems corresponding to each subject click into place with the theory, enlightening readers about Excel applications to decision making. At the end of each chapter, Harnett and Horrell provide a couple of short

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