

The authors present excellent arguments on an ideal two way relationship within and among subsystems of education needed before the sophisticated technologies such as multimedia and microcomputer networks that have invaded the classrooms can effect any positive reform in both the process and the product of education. Authors in most chapters also question the contention that knowledge flow assumes a one-way direction from the teachers to the students. They argue that such misconceptions of the term deny the rights of a give-and-take relationship and the reality of education as a process of knowledge sharing. Unequal distribution of resources, ill-prepared teaching personnel, teachers shying away from the technology explosion, questionable validity of our evaluation instruments, inadequate funding and unequal involvement of the sub-systems have allegedly been held responsible for any noticed failure in education reform. The authors urge educational technologists and planners to rethink more realistic socio-educational systems, enrich study programs and improve learning environments to create a more conducive atmosphere for generating knowledge. To use the editor's example; "Teachers who rethink their curricula, replacing short pieces of didactic instruction on separate topics in discrete disciplines with multidisciplinary projects in which students tackle meaningfully, complex tasks over extended periods of time, are establishing the prerequisites that will allow them to apply technology meaningfully to support students work" (p. xii).

On the negative side, this book neither provides detailed technical definitions and configurations of educational software involved in the Education Reform Project nor does it exhaust the long list of educational software currently available for school use.

The primary goal of the volume was to synthesize issues of technology and educational reform in a way that would help future innovators to avoid the potholes of the past. The authors finish by confirming that when technology is integrated into a broad effort, not as instigators of a course-all but as a set of tools to support intellectual inquiry, then educators, students, parents and communities have a powerful combination that may, indeed, bring necessary, positive change. In my opinion, this volume has accomplished its mission.

REVIEWER

Modest Levira is a lecturer in Educational Media at the University of Dar Es Salaam in Tanzania and currently a doctoral student at Concordia University.

Software by Design: Creating People Friendly Software by Penny Bauersfeld. New York: M & T Books (division of MIS Press), 1994. ISBN: 1-55828-296-3, 325 pp. (\$29.95 U.S.; \$37.95 CAN).

Reviewed by Dan Fontaine-O'Connell

The title, though accurate, does this book a bit of a disservice. In lay terms the author has captured the fundamentals of project management, formative evaluation and iterative design between two covers, only three hundred and thirty easily read

pages apart. Granted while the focus of the book is on rendering the software development process more user aware, the scope is much broader. The approach Bauersfeld uses makes the techniques outlined easily translatable to the design of almost anything. What I found particularly relevant is the applicability of the techniques outlined in her book for the development of instructional media. The techniques themselves are not focused on instructional design, but that does not restrict them from being used for that purpose or any other non computer based media.

Having a stronger background in video production and other media, I was able to readily apply Bauersfeld's approach to the development of instructional video. My reason for selecting this book originally, however, was to expand my skills into the development of computer-based instructional media such as CD-ROM. Although she does not deal extensively with issues such as interface design or any of the myriad of other issues in developing computer based media, she provides the framework with which to proceed.

Bauersfeld takes a pedagogical tack in her presentation. The chapters of the book generally represent different stages in the design process, each contributing in progression to the completed design. Within each chapter, the author outlines the steps of that stage with justification for the approach based on user benefits and product development efficiency. She also provides a number of hints and tips based on her experience with software development along with exercises to help consolidate the skills in the reader.

As a practical exercise, Bauersfeld asks readers to develop a design of their own invention as they progress through the various stages she has outlined. She provides a broad context within which to design the product but I do not find the example project she has chosen to be practical despite its quasi-familiarity to most readers. She asks the reader to practice her techniques through the development of a piece of software for the food distribution industry, be it for taking inventory, facilitating grocery shoppers in finding food items or whatever. The intent behind her exercises is laudable. The problem is that the readers have to create their own context for the exercise. Consequently there is no avenue for feedback from the author because each situation would be too different for her to comment upon. She is not able to facilitate the reader in this project effectively so I question the approach. Straight forward examples of brief case studies demonstrating the technique might have proven more effective.

The layout of the text is good with numerous subtitles and headings which provide an excellent overview of the topics being discussed. It reads as though she created an outline and then fleshed out each subject under the heading. This enhances the reader's ability to browse through the book, whether to get an overview or to find pertinent information quickly.

Admittedly, I found the first third of the book through to Chapter 4 unchallenging perhaps because of my familiarity with the material more so than her treatment of it. Chapters 3 through 8 provide the bulk of the value of this text.

Bauersfeld first outlines approaches to user studies emphasizing the primacy of this step to the overall design and success of the project. This includes observation techniques, interviewing, task analysis, expert interviews and more. Chapters 4 through 6 focus on the various stages of the design process from off-line design work to prototyping. Chapter 7 discusses evaluation methods and Chapter 8 creates a synthesis of the prior stages to advance the quality of the design.

It is not the type of book which one would pick up and read from cover to cover. Not all the information would be fruitful for everyone who used it but it could be a very useful reference guide for the design process in software development. It is also not a technical manual, theoretical position or manifesto of any kind. I would recommend the book as a very useful departure for someone embarking on the design of a software product, but also for the instructional design of material in any media. It is practical with a very hands-on approach. It is uncomplicated without being simplistic. And of course its most redeeming quality is the emphasis on discerning the needs and desires of the end user as being *apriori* to any design.

REVIEWER

Dan Fontaine-O'Connell is a founder of CommonGround Communications, an educational communications firm based in Montreal and a Ph.D. student in Educational Technology at Concordia University.

Utilizing Multimedia ToolBook 3.0, Tom L. Hall. Massachusetts: Boyd & Fraser Publishing Company, 1996. ISBN 0-7895-003 1-0.

Reviewed by Brian D. Kerr

“Why re-invent the wheel?” is an expression that you have probably heard. Well, I say, “Go for it - especially if you can make it better!” That’s exactly what Tom L. Hall has done with his book entitled *Utilizing Multimedia ToolBook 3.0*. He has developed a book that really makes it easy to get to know the ToolBook 3.0 program.

I have spent the past year struggling to master the software known as ToolBook 3.0 - this is an authoring package. As you know, User Manuals are not always easy to interpret and they can also be quite intimidating. So, over this yearlong period a great deal of information was gathered through trial and error, late-night telephone calls and lunch-time meetings with other users, on-line searches, and of course Internet news groups. I did everything short of the Vulcan “mind-meld” to figure this program out! Now, one year later, I spend two nights sitting in front of my computer with this book and it’s all there in black and white