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REVIEW OF: Rob Walters. Computer-Mediated Communications: Multimedia Applications. by Bradford Eden

by Bradford Eden

"Computer-mediated communication (CMC) is the use of an application computer to control multimedia interactive and message-based communication to provide more effective ways of doing things." (p. 1)

With this definition as the opening statement of the first chapter, the reader immediately identifies the author's intentions and goals of defining and explaining the terminology associated with CMC technology. As explained in the preface (p. xiv), this book is the final volume in a trilogy. In the first book, Voice Information Systems, the author concentrated on voice processing systems. [citations lost in site migration] In the second book, Computer Telephone Integration, the author examined how linking the telephone and computer systems can provide more effective applications. [citations lost in site migration] In this book, the technologies involved with voice processing, multimedia messaging, e-mail, groupware, work flow, information networking, and image processing are all converged into the term "computer-mediated communication."

Upon inspection of the table of contents, the reader may be overwhelmed by the technical and computer-oriented focus, and wonder whether the book is understandable and comprehensible to the average computer user. The preface addresses these fears, and prepares the reader for this journey into new territory. Here are the author's own words:

By background I am not a technologist. I have designed hardware and systems, and have even written software--so how can I possibly write about applications in the communicating multimedia world? Simply because my true joy is in explaining something technical to people who are not technical, to see their mouths form an "oh" and their eyes open wide just before they say something like "Is that how it works?" or "Is it really as simple as that?" ... This book is not written to impress you with my knowledge." (p. xiii)

While it is difficult not to become technical in a book of this kind, I think that the author does an admirable job in defining and explaining the complex area of CMC. According to the author, it is not necessary to read every section of every chapter. The first two chapters of the book are the most technical. Chapter six describes some of the most recent CMC products available at the time of publication. Every term and acronym is defined, even concepts like LAN (local area network), WAN (wide area network), and PC (personal computer). There are numerous illustrations throughout the book, especially when discussion revolves around setting up network connections.

The author has a strong sense of humor, and it prevails constantly throughout the book. I found his use of parables as ways of explaining complex topics and concepts both interesting and fascinating. Rarely does one encounter a technically-oriented book where the author works hard to be on friendly terms with the reader! The book also contains a section on acronyms and abbreviations, a glossary of terms, references after each chapter, and an index. The last chapter takes a look at the future of CMC; indeed, the last paragraph of the book gives an inkling of the kind of rapport that the author tries to establish with the reader. I think that he does a pretty good job!

Whether all of this does lead toward an expanding world of couch potatoes living in a virtual world, performing self-diagnosis and treating their own ills via the screen, leaving the couch only for exciting trips to the toilet, the kitchen, and just occasionally to the front door to receive the latest home shopping delivery, I rather doubt. That picture does beg the question: who delivers the shopping? I incline to the view that CMC will just give everyone a little more choice about when to leave the couch, about where and when travel is really necessary, and about whom they sell to and buy from. Whether books like this one have a role in this world of unlimited choice remains to be seen! (p. 373)

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REVIEW OF: Brian Kahin and Janet Abbate, eds. Standards Policy for Information Infrastructure. by Pat Ensor

by Pat Ensor

Standards Policy for Information Infrastructure, a hefty (653 pages) tome, is a publication of the Harvard Information Infrastructure Project. The papers included in this volume are an outgrowth of a workshop which was sponsored by the National Institute for Standards and Technology in June, 1994. The papers have since been revised and updated. The intention of the series of which this is a part is to "reflect the judgments and research of practitioners and scholars from a wide range of areas and fields" in order to "make a contribution to both policy and practice." (p. xiv) This book succeeds on both counts; in fact, it is a must-read for anyone interested in information technology standards.

The contributions in this volume focus on the development of standards for the National Information Infrastructure (NII). Its scope, however, is really global, even though there is a tendency to focus on United States processes. The book begins with an excellent overview entitled "Standards Processes and Objectives for the National Information Infrastructure." This is followed by four sections covering broad topics, each with three to five papers. These sections are: "The Standards Problem," "Current Practice," "The Role of Government," and "Interoperability and Intellectual Property." The final third of the book consists of eighteen shorter position papers, all relating to the overall topic of the book, but not grouped in any way. Papers usually have references and notes which provide further reading sources. A glossary of acronyms, a list of contributors with brief descriptions, and an index complete the book.

The contributors to the book are distinguished, well-credentialed scholars and standards makers. Most of the names I am familiar with in the standards area are included among the list of authors--Michael B. Spring, Carl F. Cargill, and Sergio Mazza, for example.

Certain themes reoccur frequently among these papers, giving readers a good idea of the current issues in information standards relating to the NII. "The Standards Problem," as the first section is called, can be summed up briefly. For a national (and global) information infrastructure, we need interoperability; for interoperability, we need standards. The NII tends to change, and demand change, quickly. Standards are developed slowly. How do we reconcile this contradiction?

These papers depict for the reader the environment within which standards are developed; primarily, the focus is the United States. Some elements that form this environment are a tradition of minimal government involvement in the standards process, a strong and hardy strain of industrial consortia that develop "de facto" standards, and a great reverence for intellectual property rights. The contributors to this volume who touch on the topic of government involvement agree that the government should provide more support to the process of standards-making for the NII; however, they also tend to agree that the government should not take over this process, and that the use of federal procurement regulations to enforce certain standards has rarely been successful in any sense.

A number of papers address the issues involved in the growth to that point of the Internet, and how interoperability has been successfully achieved in a number of instances. There are good analyses of what contributed to the achievement of interoperability and how that may, or may not, be transferrable to other standards- making processes.

The papers in this volume recognize the valuable contributions that consortia have made to the standards-making process, and those that deal with the topic, focus on how consortia can be more coordinated with official standards-making bodies. A major bone of contention is the varying priority placed on intellectual property rights by some official standards-making bodies and consortia. Industrial consortia tend to hold this as a sacrosanct value that should never give way to any other consideration; those who are more on the side of standards-making bodies may say that it might be necessary to impinge on these rights to achieve a good, workable standard.

There is much in this volume on how the standards-making process can be speeded up, since it is a false dichotomy to say that the standards process cannot be fast and good. Or, at least the standards process could be faster and still good. The very infrastructure for which these standards are being propagated also contributes to the ability to speed the standards process. Communication, circulation of drafts, editing processes--all are helped by the computer and the network. Discussion is even included about the human factor in standards development.

The attribute which takes this collection beyond the level of the usual collection of platitudes about standards is its honesty, and the contributors' willingness to "kick ass and name names." Yes, many of the contributors have their own agenda to relay, but the sheer number of papers allows the reader to pick up a variety of viewpoints. Most of the contributors clearly state their opinions about the standards process and how it could be improved--and what would not improve it. They are willing to discuss failed standards efforts such as the infamous OSI (Open Systems Interface) and a number of failures by the federal government to determine standards through procurement and regulation.

To be honest, not every paper in this volume is a page turner, and none of them will be going straight to video in your local Blockbuster, but for this kind of thing, they're fairly exciting! Yes, they're a bit dated, but the kinds of issues that are covered are of long-term interest.

The reader of this volume will receive an invaluable picture of the issues and controversies in standards development for the National Information Infrastructure. This collection belongs in every academic library and should be read by anyone with an interest in the development of the Net (whatever it is specifically called) and anyone with an interest in networking/information standards.

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REVIEW OF: Tonny Espeset. Kick Ass Java Programming, Advanced Everything--with an Attitude! by Temple Hoff

by Temple Hoff

The word "advanced" is written quite small on the cover of the book. It should have been large and highlighted! This book is not for beginners or even novice programmers. In other words, if you still think Java has anything to do with Juan Valdez or is a small Pacific Island, this book is not for you. This book is for serious eggheads who already know how to do it and want to learn how to do it better.

The quick review of this book goes like this: writing style--very good, content--excellent, layout and presentation--fair. I love the fact that more and more advanced books are being written with some amount of style and in personable language rather than the dry, two-dimensional tone of traditional textbooks and manuals. This book does have style, right down to the title.

A full 40% of the book is Java code examples. Some people may be put off by this, but those who will truly make use of this book will love it. The code is usable and is also contained on the accompanying CD-ROM for those of us who are not into heavy typing. The layout is better than what you might find in a standard textbook, but not quite as exciting as, say the "Idiot's Guide to..." whatever series. There are occasional tips that are very nice, and lots of screen shots--all in black and white, though. Color in the next edition would be nice. All in all, the $40 Standard Retail Price should be well worth it to serious Java programmers.

The first chapter is titled "Easy Animation." This is a matter of perspective. I expected some amount of introductory material--for example, maybe, "History of Java," "Java vs. C++," "Basic Java Statements." Nada! The author cuts the fat and bites right into what most users perceive as the purpose for Java anyway, animation on the Web. The sample code is great. The chapter's main focus is creating quickly loaded images, and reducing flicker--both very worthy topics and near to the hearts of netizens everywhere whether they know it or not.

Chapter two covers sound and is eight pages long. Two pages are sample code. As the author points out at the end of the chapter, Java doesn't have a lot of sound support built into it yet. I was a little disappointed at the length of this chapter, particularly when trying to write a review. But, after thumbing back through the

book again, I realize that there aren't that many fewer words in this chapter than in the others, just less code!

Chapter three goes deep into image processing. Read the "Tips"; they are life savers. Remember high school geometry? It's back! This chapter hits screen coordinates in a big way. There is lots of pixel-level image manipulation involved here. The end result is that this chapter shows you how to code many of the special effects found in photo applications like "PhotoShop." Wave, ripple, and explode filters and 3D button effects among others are included here. This chapter is one the best parts of the book! I have plans for using many of these scripts.

Chapter four covers two-dimensional rendering. The meat of this chapter is in small animations based on single pictures. Yes, the sample code is getting longer. Through the first few chapters it's easy to read through the code without interrupting the flow of the text. By chapter four you're ready to take the author's word for it that the following chunk of code will make a motion blur or whatever. But, if you need to actually use the code, there it is! The ImageProcessor class is introduced--maybe not introduced, but talked about. [citations lost in site migration] This book doesn't really introduce anything. You'd better already be familiar with each topic. This isn't necessarily a bad thing.

Chapter five was very hard material for me as were the next couple of chapters. I was so excited to start it, too! "Entering the Third Dimension" is the title. Of course, if it were easy to create a 3D world, everyone would be doing it! But, this is a bit trickier than HTML (Hypertext Markup Language). The first few pages are easy enough to follow, and very interesting. The advantages of 3D in Java and 3D coordinates are discussed. There's even a screen shot from "Duke3D"--I think it's from the Freeway level. Now, that's inspiration to create a 3D world! A really nifty star field script is included. I actually used this one and it worked! Several more scripts are given that weren't too bad to follow; a bouncing ball and some take-offs of the star field. Then a 3D spiral script is brought in. This took me a while, and several additional reference books to figure out.

The chapter dives back into the ImageProcessor class next. A script to break apart a picture and put it back together ends the chapter. This chapter took me a couple of days to dig through and I still don't think I caught it all.

Chapter six hits VRML (Virtual Reality Modeling Language). 3D transformations, movement in 3D, and wire and shaded objects are all covered, quickly and with no sympathy for the novice. A full page and half is dedicated to a discussion of VRML. This is a lot for this book. Most topics get explained once, very quickly and then it's off to the next topic. If you do happen to have that old high school geometry book around, get it. Several pages are dedicated to explaining a turning cube script. Points and coordinates are all there is. If you don't have a firm grasp of x,y,z, you don't stand a chance! The Matrix3D class is covered next. Now algebra is added to geometry! Next time your kid asks what he needs to learn algebra for, get him hooked on Duke3D (this is generally not too hard) them ask him if he'd like to create his own Dukeland. At the peak of his excitement, show him chapter six!

Navigation is covered briefly, and wireframes are introduced. Shading is covered very lightly then a truly monster script for a so-called "basic" Model3D class is given. This is twelve pages of code that I haven't even begun to figure out. The whole Model3D is included in chapter seven. A second script follows that allows you to view Model3D. The chapter ends with a discussion on precalculating movement and passing HTML to the VRML animator, which is also included.

Chapter seven is titled "Adding Realism." The main targets of this chapter are shading, illuminating, and textures--all, of course, very important to making that virtual world look real. The chapter walks through the creation of a cube in wire form then shows how to fill in the surfaces and begin shading. More of this chapter is code than text. Shadows and perspective are discussed, then another little jewel is given. Listing 7.7 "Creating a 3D object from an image" and the accompanying viewer in 7.8 show how to take a title, make it 3D and shadow it; too cool!! I really got a kick out of this little effect, but maybe I'm just easily amused.

Texture is covered in great depth with lots of good code and more neat tricks with pictures. The rest of the chapter is one long update to the Model3D class introduced earlier. For the very advanced, skip right to this. For the rest of us, go back to the beginning and start over. Repeat till the bulb clicks on above your head.

Chapter eight gets into tricks with text. Have you ever seen those annoying scrolling messages in the status bar of your browser? Of course you have! Want to annoy your Web visitors with scrolls of your own? Well, here's all the tricks you need. This chapter is crammed with nifty scroll tricks. Late in the chapter some great 3D text scroll scripts, like a 3D spiral, are given.

Chapter nine is titled "Navigation." The keys to this chapter are frames, tracking the mouse and 3D animated menus. This stuff gets more directly into HTML and is a little easier to follow than much of the rest of the book. As with chapter seven, most of this chapter is code.

Chapter ten is one of the most valuable for serious programmers. It is all about making it look better and load fast--really important stuff for those wanting big effects from these Java scripts while remaining bandwidth friendly. Watch out, though, there's more algebra here!

The appendix is a great summary of classes and commands used in the book. It serves as a very good reference source and is very helpful when trying to read through the scripts in the book. The CD-ROM contains some shareware and freeware and a cool Java version of "Asteroids," but, like I mentioned earlier, most importantly it contains all the scripts in the book.

I really like this book and plan to refer to it often. It's definitely challenging and not for the faint of heart, but it gets the job done and does it with style. If you're into Java this is a great book, but it's not a complete book on Java. You will need others. If you're not already an experienced Java programmer, this book could still be a great deal. But when you buy it, buy three or four of the books next to it, too!

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TER Update

We are pleased to take on a new face starting with Volume 4. The new graphic and white background enhance the presentation of the information we offer. We hope you find this new look appealing.

We are also pleased to be coming home, so to speak. While TER is a LITA publication, the Web version has been housed at two locations over time: the University of Washington Libraries and the OhioLINK offices respectively. We are deeply grateful for the willingness of these two organizations to have provided a temporary home for TER during this period. Now we have a permanent home within the LITA Web site.

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