

## Telecommunications Electronic Reviews (TER)

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### **REVIEW OF: David Angell, Brent Heslop. *The Elements of E-mail Style*. Reading, MA: Addison-Wesley, 1994.**

*by Jeff Fadell*

The thesis of this book seems to be that someone who does not write well in conventional printed formal/business correspondence may be suddenly thrust into a position where he or she will be expected to write the same type of thing well as e-mail. The person caught in this unlikely situation will find this book

helpful, since it is, to paraphrase the old TV commercial, two--two--two books in one: it gives succinct guidelines on writing well (hence the title based on Strunk and White's book), and it presents the special conventions that have come to be used nowadays with e-mail.

Over half the book offers rules and suggestions for good writing that apply to any kind of formal prose: choosing the right words; tone, rhythm, persuasion; building better sentences; spelling and capitalization; punctuation. This material tends to contradict the authors' claim that e-mail "should be structured in a way that is radically different from traditional paper-based business communications." (One would think that the real radical difference between traditional writing and e-mail writing is the much greater tolerance of sloppiness in e-mail as a trade-off for the speed at which e-mail is customarily written and delivered.)

The book also gives advice on writing for the 90's, such as avoiding sexist language or gaffes that could offend a foreign recipient. It also discusses e-mail etiquette, especially the perils of flaming.

The rest of the text deals mainly with e-mail conventions: the common use of ordinary abbreviations to save time (dept., et al.), special e-mail acronyms (IMHO, BTW), making a signature file, etc. Then, coming as a surprise in a book for beginners, several pages discuss the advanced practice of inserting special characters in DOS and Windows. There follows a Glossary of English and E-mail Jargon (it seems strange to find terms like Adverb and Bozo filter in the same list), and then an appendix touching on newsgroups on the Internet. The book ends with a lengthy index.

In spite of its odd premise, this could be a useful and helpful work--and you'd be getting two books for the price of one!

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## **REVIEW OF: John R. Pierce, A. Michael Noll. Signals: The Science of Telecommunications. New York, NY: Scientific American Library, 1990.**

*by Steve Hardin*

When this reviewer was about 13 years old, he encountered a frustrating dilemma whenever he tried to expand his knowledge in science and technology. He was too sophisticated for the "gee whiz, here's how our friend the scientist makes wonderful discoveries for the benefit of humanity" approach common to books for beginners; yet he lacked the mathematics and science training needed to comprehend formal textbooks on technical subjects. He wishes Pierce and Noll's book had been available to him back then. It describes telecommunications in a way well-suited to someone of any age with a genuine interest in the topic who lacks the time or background to pursue the subject with professional rigor.

The book describes the history, science and technology of telecommunications, with a special emphasis on the telephone, specifically, the Bell System. Pierce and Noll begin with an overview of the phone system and a brief account of how it came to be and where it is likely to go. This opening summation in the first chapter

is amplified in succeeding chapters.

The authors discuss the first widespread form of electrical communication, the telegraph. They describe some of the rather ingenious devices which made the system work well. After an outline of facsimile technology and a look at some basic electricity facts such as Ohm's Law, they proceed to telephony.

The chapters on telephone communication are the best part of the book. Anyone who has wondered how multiple messages are transmitted simultaneously on the same wire, or why long-distance voices which used to sound so weak are now amazingly clear, or why a caller sometimes hears another conversation in the background, will delight in the wealth of information presented in these chapters. Concepts such as wave theory, channel capacity, switching and multiplexing are explained clearly. So are various modes of modulation and analog and digital communication methods.

The differences between telephony and radio become blurred with microwave transmission and satellite communication. Descriptions of vacuum tubes and the transistors which largely replaced them could be used well in books about radio. Even television enters the discussion as the authors describe efforts to implement picturephone systems--and why those efforts failed. The explanations are usually quite understandable and well written. In fact, this reviewer would venture to say the explanation of how semiconductor devices work is one of the best nontechnical explanations he has encountered on the subject.

Like the other books in the Scientific American Library series, this book is profusely illustrated with colorful diagrams and historic photographs. In addition, the captions to these illustrations often provide alternative explanations to matters under consideration in the text. The illustrative matter contributes significantly to the readability of the book. This reviewer, however, wishes a few more dates had been provided in the captions describing the older photographs and illustrations. A bibliography and index also add value to the work.

The intermediate nature of the book may result in frustrations for some readers. It is too complex for light reading and too simplistic to be an authoritative textbook. In a few instances, the authors seem to forget who their intended audience is. For example, a discussion of Fourier's analysis of sine waves assumes the reader has an acquaintance with trigonometry and integral calculus. A few chapters later, the authors pause to explain the far more basic concept of binary numbers, forgetting that anyone familiar with calculus will have little need of that explanation. Fortunately, the text is written so that readers befuddled by the mathematics can still get a great deal of useful information from the book.

Authors Pierce and Noll make unusual use of the personal pronoun "I." Usually, it is used to refer to both of them. But when a distinction between the two is necessary, they follow it with the name of the author making the point, as in "I, John Pierce."

The authors's backgrounds are both a strength and a weakness. Employed by Bell Laboratories for many years, Pierce and Noll lend considerable insight into the way this research organization operated. Pierce's anecdotes especially are both interesting and informative, including his coining of the word "transistor" to name the invention developed by John Bardeen, Walter H. Brattain and William Shockley (p. 146). On the other hand, the authors make no effort to conceal their distaste for the breakup of the Bell system, and there runs through the text a wistful longing for the way things used to be. As participants in much of telephone history, their opinions are certainly valuable, but readers in search of a more objective treatment of the pros and cons of divestiture are advised to look elsewhere.

The greatest weakness of this book is its 1990 publication date. Much has transpired in the last five years in terms of the Internet, the World Wide Web, increasing baud rates and other areas of computer communication. The text covers none of these developments. The preface notes that this book is a "drastically revised version" of an earlier work. It is time to consider another revision.

Other minor problems suggest this book could have used more careful editing. For example, the text discussing the laying of the first transatlantic telegraph cable gives a different date for that event than does the caption for the illustration accompanying the text. Small grammatical and typographical errors also detract from the overall quality of the book.

In conclusion, this book is quite valuable for its excellent nontechnical explanations of a number of concepts central to an understanding of telecommunications. Its value, however, is lessened considerably by its age. With that reservation, this reviewer recommends it for readers seeking an intermediate level of coverage of telecommunications science.

*Steve Hardin (LIBHARD@cml.indstate.edu (mailto:LIBHARD@cml.indstate.edu)) has worked as a holistic librarian at Indiana State University since 1989. He spends his time split between Electronic Information Services and Technical Services. His publications and presentations cover various aspects of electronic resources and holistic librarianship.*

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## **REVIEW OF: Roy Tennant, John Ober, Anne G. Lipow. Crossing The Internet Threshold: An Instructional Handbook (2nd ed.). Berkeley, CA: Library Solutions Press, 1994.**

*by Nancy Nuckles*

The second edition of "Crossing The Internet Threshold," by Roy Tennant, John Ober, and Anne G. Lipow, originally published in 1993, is an updated version of the workbook the authors used at a 1992 workshop of the same name. A foreword by Clifford A. Lynch, Director of Library Automation for the University of California lends his excellent reputation to the publication. The reader may wish to refer to my review of the first published edition of this title (/lita/publications/archive/ter/1/2/1-2#tennant) in TER, volume 1, issue 2, appearing in October 1994.

This publication continues to be an excellent, clear introduction to many of the basics of the Internet. It includes an internetworking overview, providing names and addresses; getting connected to the Internet; electronic mail; Telnet; FTP; Gopher, World Wide Web, and Wide Area Information Servers. The book has been augmented with a Personal Preparation Checklist with each section. Some of the most useful information is contained in the Fact Sheets on popular topics such as Archie, Project Gutenberg, SLIP, and Usenet.

As in the first edition, this publication concentrates on resources of use to libraries, which is not evident from the title nor the table of contents. There are a number of more general publications, but none as focused on training as this one. One continued limitation of the book is that it is Unix-based, and admits this bias, which makes the book of limited utility to users of other operating environments.

The "Internetworking Overview" section includes an introduction to networking, using an expanded metaphor of the Internet as a house with a variety of conventions, such as operating systems, and tools, such as e-mail and Telnet. A brief explanation of the client/server approach is included.

The "Evolution of Networks and Network Services" section has been revised to briefly discuss virtual reality and multimedia, and some new tools such as Gopher and the World Wide Web.

The "Important Information for Beginners" section is just that: a glossary, information on getting connected, and a bibliography. The Glossary has been expanded to include: Eudora, FAQ, fetch, Freenet, FYI, HTML, HTTP, IRC, InterNIC, Jughead, MIME, Mosaic, NIC, Pine, POP, PPP, SLIP, and WWW.

"Getting Connected" includes expanded descriptions and a diagram of dial-up, especially SLIP and PPP, with the benefits and disadvantages of each type of connection. The bibliography has been updated to include entries up to the time of publication.

There are new exercises for Internet Remote Login (Telnet). Gopher, WWW, and WAIS are no longer just covered in fact sheets, but each has its own chapter. The Gopher chapter includes sample screens, descriptions, and instructions for Veronica and Jughead. The WWW chapter includes descriptions of URLs, and a couple of pages on several client programs. WAIS also describes clients and includes exercises.

New fact sheets have been added for Eudora, Fetch, InterNIC, IRC, MIME, and Pine. Others are: Archie, BITNET, Freenets, HYTELNET, Internet, LIBS, Project Gutenberg, RFCs, SLIP, Usenet News, and Z39.50.

The Trainer's Aids are almost completely revised and reorganized. Trainers will find the chapter with Trainer's Aids the greatest benefit of purchasing this publication. It contains small group discussion questions, an evaluation form, and a checklist for trainers. After this reviewer's ten years of teaching and training people from ages 5 to 65, a checklist is still useful in preparing every detail of a session.

In addition, there are pages which can be used for overheads on several topics covered in the previous chapters; these are "Client/Server Architecture," "Internet Access Diagram," and "The Internet: A Network of Networks." There are also small graphics of outlines of important topics which could also serve as overheads. An index closes the publication.

One of the nice features of publications from Library Solutions Institute is that you can order them online using a Web browser ( <http://www.internet-is.com/library/> (<http://www.internet-is.com/library/>)).

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## Culture Clash on the Infobahn: Paradise Lost?

by *Thomas C. Wilson*

Recently on a vacation to the Hawaiian island of Maui, I had the opportunity to observe the inherent tension between isolation and development. At first it was purely an intellectual curiosity brought on by hearing that the local folks in Hana, the as yet isolated and less-developed side of the island, had held off the construction of a golf course because of a fear of the attendant commercial development that follows. They wish to remain free of such developments. My initial reaction to the isolated nature of Hana was frustration--indeed, the three-hour drive along a road filled with hairpin curves, single-lane bridges, and altitudes ranging from 0 to 2000 feet left me a bit nauseated.

As I relaxed into the "underdeveloped" nature of Hana, noticed the lack of ambient noise, and inhaled (yes, I admit it) the fragrant, clean ocean air, I began to see some possible parallels with life on the Internet. There are many changes happening online, and it might do us all some good to take a few moments to analyze them and ask some questions.

How do you define paradise? I certainly had the opportunity to experience a slice of it in Hana. Others may define paradise as being surrounded by every convenience, gadget, and service--I'd call that suburbia! Probably, most of us visualize a far away, isolated, pristine, island that has not been polluted with the commercialism, development, frustrations, worries, etc. of our everyday lives--dare I say our culture? Many images of paradise include notions of a simpler way of life, less dependent on complicated technologies with more connections to nature.

Well, there are some places left on the planet where indigenous peoples live in isolated communities that have some paradise appeal to them. There are also many more examples of communities that have been touched by dominant modern cultures thereby changing them irrevocably. You see, once paradise is handled, the fingerprints cannot be removed; the very nature of its existence has been changed, and a flood of events washes away the very components that make it paradise. Put another way, if paradise requires isolation, you can't get there easily, and if you can, it is no longer paradise. Paradise comes at a price.

Here's the connection with the Internet--once the Internet was an isolated group of users who exhibited indigenous cultural values of a sort that were/are distinct from other real and virtual communities. As we have rushed in to make the network approachable, user-friendly, consistent, reliable, orderly, safe, and clean, we have done so for the most part without regard for the impact on that original culture or, and perhaps more ironically, with the belief that we could surgically salvage all the "good" things of the net leaving behind any of the costs or "bad" things. It strikes me that this approach has been a bit naive, just as is that of the developer who believes that s/he can cut a slice of paradise out, replace it with a housing development, and never have any impact.

Now, I'm sure that some readers will jump to the conclusion that I am implying that we should go back to line commands for accessing Internet resources--there are days, but... Actually, I believe we need a lengthy dialogue on these questions, to ensure that we understand what we gain and what we lose. We can't have it all. The paradise of the Internet--whether you consider that interactive entertainment, virtual reality databases, or just plain text e-mail--does not come for free. Yes, Virginia, paradise is hot and sticky and has bugs. Certainly there are real dollar costs, but let's set those aside for the moment. There are other costs, such as the effort it takes to discover and learn something or develop a new service. That cannot be had for nothing! Yes, it is wonderful to interact with graphical interfaces and to mount useful and fun resources; it may even be fulfilling to offer these goodies to the public. Do you or they, however, have any clue about the underlying technologies and contingencies at play when a button is clicked? No, it is not necessary to know

the theory of internal combustion to drive a car, but it can help to know what component pieces make up a standard engine, how to replace a fuse, or even which side of the car has the gas cap! The less one knows about what goes on "beneath the hood," the easier it is to trivialize the complexity of the technology and devalue the culture that built it; it is also then a short path to irresponsibly using resources.

More to the point, I see many threats to the nature of the Internet as we know it, and these are directly the result of removing the isolation. Yes, there are many users who don't know what they are doing--there are even service providers who don't know what they are doing. And yes, one of the threats relates to funding issues. However, these are not fundamental issues, they are symptoms.

We are now in the midst of a pitched battle between cultures that cannot communicate because they have different languages (and I don't mean technical vs. non-technical), philosophies, and gods-- much like what has happened when isolated indigenous communities have been exposed to dominant cultures. Although, to my knowledge, no blood has been shed yet, people's lives have been changed and potentially destroyed. People have gone to jail, had equipment confiscated, and had reputations smudged. The battle for control of the territory is being fought in the popular press--a notorious source of oversimplifications--and in the courts--a notorious source of polarization with no middle ground. The battle for this paradise is being fought using absolute dogma on all sides. And to what avail? Does anyone really believe that when the dust settles something of greater than mediocre value will remain, particularly if the former data and resource providers have all been sued out of business and outspoken contributors to news groups have left?

Yes, paradise comes at a cost, and when it is gone, it cannot be recreated--something else might exist, but not what was there previously. One can argue that the past nature of the Internet hardly constitutes a paradise, but then I pose the question, what's been the draw? Why have so many people been so interested in signing on? Why would someone invest hard-earned money to cruise the net unless there was a perception that something of value was there to be found? But what price are we willing to pay for an open and unimpaired exchange of ideas?

Can we hack the road to Hana?

(Most of my vacations are relaxing, but not usually this thought provoking. I encourage you to reflect on these things. Send me your thoughts, perhaps together we can revive the dialogue.)

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## Editor's Note

With the publishing of Volume 2, Issue 2, we are pleased to offer TER on the Web. Thanks to the work of Thomas Dowling and Charles Blair, you will find HTML versions of all TER issues at:

<http://weber.u.washington.edu/~tdowling/ter/> (<http://weber.u.washington.edu/~tdowling/ter/>)

We continue to distribute TER issues via Listserv and Gopher as well.

## About TER