

and most comprehensive exposition, see John Ziman, *Real Science — What it Is, and What it Means*, Cambridge University Press, 2000). Above all, Month should decide who his hoped-for readers are and he should write accordingly; as it stands, there is no obvious audience for this book. I found it intensely ironic that the author expresses his appreciation of "a gem of an editor, a writer's dream come true": the right editor would have insisted that the book be shortened to no more than ¼ of its present length and re-written as a narrative of events with the absolute minimum of interpretational baggage. In all seriousness, I urge Month to do that. Moreover I could happily recommend a genuinely good editor.

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The Heart of the Internet, An Insider's View of the Origin and Promise of the On-Line Revolution by Jacques Vallee, Ph.D. Charlottesville, VA: Hampton Roads, 2003. xix + 200 pp. \$22.95. ISBN 1-57174-369-3.

Regular readers of this journal are already familiar with this book's author's writing. Their positive expectations will be fulfilled in this book. Vallee's writing manages, as always, to be simultaneously conversational and formal, casual and elegant, objective and passionate. We have come to expect of his writing clarity of both argument and its expression, and this book will not disappoint.

The subject, however, is not what readers who know Vallee's work from only this journal might expect. He does not write here about subjects on the periphery of the scientific social enterprise, or beyond. As implied by the title, this book is about something that has come to wend its way through the very core of our society: the Internet.

The book was written with two purposes. The first is to present the early history of the Internet, the networks that preceded it, and some of the visions from which they sprang. The second is to show how those visions are not only being lost in today's Internet, but are being surreptitiously and systematically (but not, as he reminds us, usually maliciously) betrayed.

Vallee sees two possible electronic societies in our future, which he calls "The Solid State Society" and "The Grapevine Alternative". He makes it clear that both these futures will inevitably come about and will co-exist. The issue is the balance point between these that we will find ourselves living with.

The early Internet pioneers assumed that the networks they were envisioning or developing would be controlled by its users—by those who consumed the

information it provided. Whether they expected those users to be members of the general public or of a technological elite, they expected that the users would be able to select the information that they wanted from among the diverse informational resources made available, and that their needs would drive the information providers (who might well be the same people). The pioneers' perceptions of what the technology would be and who would benefit were shaped by this assumption. The realization of these visions is Vallee's Grapevine Alternative.

According to Vallee, The Solid State Society is what has been taking over the Internet at breakneck speed, roughly since the collapse of the dot-com economy (I would have dated the trend earlier, myself). This is an electronic society in which the real control of the information the users receive from the Internet is in the hands of a relatively few, powerful information providers and regulators: corporations, organizations, and governments. Furthermore, by controlling the information, by maintaining an illusion of a lack of bias in that information, and by collecting and interpreting information about the users, the consumers themselves are controlled.

As Vallee says, much of what people think they know about the history of computers and of the development of the Internet is simply wrong, and there is so much of the history that is simply unknown even by experts. This history is buried in reams and reams of technical documents or is entirely unrecorded. The early network developers were too busy dealing with technical and funding issues to bother recording much of what was happening in their labs and minds, and no one outside the community saw much point in observing, much less recording, what a bunch of techno-nerds (to use an anachronistic term) were up to in their own little world.

Much of what Vallee writes about, both as to events and attitudes, matches my recollections as one of the earliest users of the ARPANet (the prototype of the Internet). But Vallee has many qualifications that most of us lack. He was involved in the actual development of the technology rather than simply being able to take advantage of it—he was close to the center whereas I inhabited the rim of this community. More importantly, he kept a detailed journal of events so the accuracy of much of his history does not depend on the vagaries of decades old memories.

Vallee's account of computer and network history and his observations about them—such as the lessons he learned and the personalities of those involved—is both easy to read and fascinating. For those of us who lived through it, it is a mixture of reminders of things long forgotten and revelations about things never known. For others it will be more of the latter, but I doubt if it will be less interesting for that.

Vallee warns us in the introduction that, as a history based largely on his personal reminiscences, the account is biased in scope and leaves out a great deal. This is certainly true. The most glaring piece missing that I noticed was a complete absence of any mention of the UUCP/USENET network. The lack seems odd since that network, however limited in capabilities, was probably the purest, most widely disseminated embodiment of his Grapevine Alternative—

more so than the World Wide Web ever managed to be in practice. But this book should be judged by what it has rather than what it lacks, and in my opinion that judgment is positive.

The account provided of the developing encroachment of what Vallee calls The Silicon Society will provide few surprises for anyone who has followed the issues in the trade literature. The same can be said for Vallee's suggestions about countermeasures—both collective and individual. But the book's presentation of these is accessible and comprehensible and will probably provide many surprises for the general reader.

Overall I strongly recommend this book for just about anyone interested in our new information-based society, how it came about, and where it might be going, whatever their background.

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Demon Lovers: Witchcraft, Sex, and the Crisis of Belief by Walter Stephens. Chicago: University of Chicago Press, 2003. 371 pp. \$20.00 (paper). ISBN 0-226-77262-4.

The incubus and succubus have haunted the dreams of theologians and occult theorists for centuries. Stephens' outstanding volume is the most thorough historical discussion of the late medieval/early modern tradition. However, this book is about much more than stories of witches having sex with the Devil. It is an all-out intellectual history, a critical examination of the thoughts and philosophies of witchcraft theorists such as Heinrich Kramer, author of the *Malleus Maleficarum*. Thus the title of *Demon Lovers* is somewhat misleading, as Stephens examines multiple layers of European witchcraft theory, not just the incubus. Chapters include discussions of the Sabbat, witches and infanticide, as well as demon possession.

What ties these clearly written chapters together is Stephens' thesis that stories of corporeal interaction with demons, and witchcraft (or *maleficia*) in general, allowed theorists to take comfort in the fact that demonic reality and, by logical connection, all of Christian theology stood firm in objective, experiential evidence. Far from being irrational or even fulfilling supposedly deep hatreds of women, Kramer and others collected testimonies of demons and witches (often through torture) because they confirmed the rationality of the supernatural at a time when skeptical thoughts about spirits began to arise, even in the minds of the witchcraft theorists themselves. For Stephens, Christian authorities coming out of the Scholastic tradition suffered from a deep-seated anxiety about whether their beliefs were really "scientifically" true, and they manifested this nervousness in their works. In fact, Stephens' entire narrative is peppered with terms