scientific world order, and may even slow the future development of corporate research.

Science, Technology and Society in Postwar Japan is a readable and thought-provoking study, although marred by occasional editorial lapses. One small irritation is a curious editorial aversion to hyphens, which means that readers are confronted with mouthfuls like "capitalintensiveness" (allinoneword). Minor quibbles aside, however, Nakayama's study is an important contribution to our understanding of science and technology in Japan. Although sometimes pessimistic in tone, it avoids simplistic judgements on the success and costs of Japan's scientific and technological development, and provides and insight into the complex dilemmas and debates which have surrounded that development process. For this reason, it is not just a book for readers interested in Japanese science and technology, but also for readers with a more general interest in the social context of contemporary science.

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The Age of Information: The Past Development and Future Significance of Computing and Communications *by Stephen Saxby*
(Macmillan, London, 1990) pp.264, $AUS150.00, ISBN 0-333-54832-9.

This book provides a useful reference guide for those who need to be brought up to speed on developments that have taken place over the last 30 years or so in relation to information and communication technology (ICT). The text has been purpose written as an "information source" for undergraduates in Law and represents a synthesis of approximately one thousand references. Saxby canvasses several disciplinary perspective on information in the introductory chapter (philosophical, mathematical, economic and legal), yet omits others, such as geographic[1], where telecommunications now offers revolutionary possibilities for 'abolishing' distance (teleshopping, telebanking, telework, telepresence), as well as supporting the full spectrum of locational choices for the business sector, ranging from centralisation to decentralisation to internationalisation.

Like other writers of key books in this area[2] the author appropriately adopts a wide historical perspective to the issue of information technology revolutions, taking us back, where appropriate, to the sixteenth and seventeenth century for examples of information bottlenecks and information flows which parallel those found in contemporary society (especially in Chapters 2 and 3). Unlike such authors, however, there is no underlying thesis to the book, no challenging propositions, no problematique. A pity, as there are a number of issues in the ICT area deserving of a legal perspective, several of which elicit only cursory reference; for example: intellectual property, cross border information flows, standards, privatisation, regulation, etc.

In the remaining chapters of the book, Saxby devotes roughly equal space to each of the three key components of the information revolution — computer hardware, software and communications. Chapter 4 provides the reader with case studies of those industries which have grown up around the new computer

science technologies (mainframes, mini-computers, super-computers, microcomputers). Chapter 5 introduces software — the key driver of the information sector. Statistics tabled on revenues in the computing services industry reveal that software accounts for approximately 40 per cent, professional and bureau services 45 per cent and hardware 15 per cent. The final chapter in concerned with telecommunications and the ever-expanding networks which inter-link computers — the new infrastructure of information societies.

In the Preface, the author acknowledges that the book represents a snapshot of developments up to mid-1990. Consequently, the reader will find no material on broadband communications, multi-media and the like — such is the fate of books written on fast-moving subject areas. Also there is only a limited window to the future provided in this work, despite an explicit pointer in the subtitle. In those few areas where it does emerge, treatment is undertaken with the caution characteristically associated with the legal profession.

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Cyberspace: First Steps *edited by Michael Benedikt*
(MIT press, Cambridge, Mass., 1991), pp. vii + 436, $US24.95, ISBN 0-262-02327-X.

The dust jacket tells us that cyberspace, a term coined by William Gibson in his 1984 novel *Neuromancer,* is "an infinite artificial world where humans navigate in information-based space" and "the ultimate computer-human interface" — a world behind the computer screen as magical and marvellous as the one Alice discovered behind her looking glass. It is "both the strangest and most radically innovative of today's computer developments".

Because the world's economies have been gorging themselves on computer technology and analysts have had so much difficulty detecting the productivity gains, I decided to follow in Michael Benedikt's *First Steps* in the hope of some glimpses of this brave new world. The contributors he had gathered together represented computer science, architecture (Benedikt is Professor in the School of Architecture at the University of Texas at Austin), the visual arts, philosophy, anthropology and industry.

Dipping into later chapters before settling down to my reading task, I was encouraged by Tim McFadden, Altos Computer Systems, for whom a cyberspace "is not only just a hugely complex information network" that allows agents outside the network to communicate but also a "scene for societies of interacting