a vacuum but supported with extensive research which makes the arguments authoritative and easy to follow. Our congratulations to Oswald and Gladys.

**Loh Chee Meng**
Natonal Computer Board, Singapore

**Tan Boon Wan**
National University of Singapore

**World Information Technology Manual Vol. I: Computers, Telecommunications and Information Processing; Vol. II: Systems and Services** *edited by A.E. Cawkell* (Elsevier Science Publishers B.V., Amsterdam, 1991), pp. 496, $US90.00, ISBN 0-444-87488-7; Vol. II:, pp. 514:, $US90.00:, ISBN 0-444-89313-X; Set:, $US165.00:, ISBN 0-444-89314-8.

This book covers information technology in a manner similar to an earlier (1986) version entitled *Handbook of Information Technology and Office Systems.* It has the same objective as that earlier version — to provide a comprehensive work of reference in narrative form for a wide audience consisting of "students, businessmen, information scientists and librarians, teachers, scientists and sociologists, professional people and many others".

Vol. I contains chapters covering information systems and information and library science, while Vol. II contains chapters covering applied technology and social and political issues plus eleven chapters by guest authors. This second volume gave opportunity to include 'last minute' developments before going to press to make the book as current as possible.

To make this review as useful to readers as possible, I list the contents:

Vol. I

Reference Data. Semiconductor Technology and Electronics. Principles of Digital Computing. Magnetic Storage Systems. Input and Output Technology. Telecommunications and Information Transmission, Part 1: History, Principles, Methods and Systems; Part 2: Networks, Systems, Protocols and Futures. Fibreoptic Technology and Transmission Systems. Satellite Communication Technology. Document Processing and Delivery Systems, Part 1: Telecommunication-Based Systems; Part 2: Disc-Based Systems. Speech Recognition and Synthesis. Expert Systems and Artificial Intelligence.Theoretical and Applied Information Science. Personal Information Systems. The Man-Machine Interface. Online Information Systems and Databases.

Vol. II

Microcomputer Systems, Part 1: Hardware; Part 2: Software. Information Technology and Information Management. Office Systems, Part 1: Introduction, Systems and Word Processing; Part 2: Services and Effectiveness. Information Technology in Banking, Retailing and Publishing. Desktop Publishing. Cable Systems and Markets. Television-Based Information Systems: Videotex and High Definition Television (HDTV). Microform Systems. Multimedia and Hypertext. The Information Society. Privacy, Freedom and Data Protection. The Value of Information. Copyright and Patents. Broadband ISDN (D. Fisher). Electronic Displays (K.G. Freeman). The Transformation of Colour Printing (A. Tribute). Designing Hypertext Systems (C. McKnight, A. Dillon and J. Richardson). Network and PC Development: The Security Problems — and a Few Answers (K. Slater). Language Translation by Computer (G. Kingscott). Document Supply

Systems (A. Braid). Library Systems (L. Tedd). Coping with Technological Innovation: Regulating the European Marketplace (R. Mansell). Integrated Office System of the Future (H. Watanabe). The Artificial Intelligence Society (C.J. Hinde and J. Edwards).

Given the reluctance of those interested in the technologies to learn about the socioeconomic causes and consequences of IT, one might have sought a more thorough blending of these two basic components. However, readers primarily interested in those socioeconomic causes and consequences have reason to be grateful for the Vol. II attention accorded the social and political issues. Of course, there remains room for some more specific criticisms. It is a pity, for example, that more than half Ch. 29, The Information Society is devoted to telecommunications. Where is the better balanced coverage of the editor's earlier *The Evolution of an Information Society* (ASLIB, 1987)? And another key chapter, Ch. 31, The Value of Information fails to bring out important aspects of the economics of information; the neglect of this topic in neoclassical treatments and the profound tension created by the efforts to remedy that neglect. "[A]n economic theory appropriate to the information age" will not be unrelated to earlier economic thought. Recent and current efforts to understand both the role of information as a commodity and the limitations upon that role and to develop an analysis of forms of organisation may yet prove fruitful. They will not do so if information is confused with information technology.

The pervasiveness of the impact of IT and the extent to which it has already fragmented into specialisations are sufficient justification for a manual such as this. There is little use complaining that it will soon become out-of-date, although that prospect does make the price seem even higher.

**D. McL. Lamberton**
Australian National University and CIRCIT