



REVIEWS

New Information Technology, edited by Alan Burns (Ellis Horwood Ltd, Chichester, England), 1984, pp. 245 (Price not mentioned)/[ISBN 0-85312-496-5]

Microelectronics revolution has ironically exacerbated the so-called information explosion through proliferation of the very printed media which at one time it threatened to decimate, if not, annihilate. Alan Burns justifies the publication of this new title for "few books have attempted to survey a range of technologies in a meaningful historical and social context". This may sound a bit of an overstatement. Nonetheless, *New Information Technology* is a welcome addition to any library because the microprocessor, the heart of the microelectronics revolution, which was once described as a mini marvel, has also the destructive potential of turning out to be a mighty terror. And, therefore, society needs to be convincingly told whether technological forces lie at the root of socio-economic changes or whether socio-political forces lead to technological change. Or whether the truth lies somewhere between the two extremes.

Where does the editor-author's conviction lie? Because research and development in information technology (IT) is extremely expensive, Burns pronounces, "the capital needed to fund these projects cannot but help determine the direction of work". His introduction "Knowledge is Power" is clearly Baconian in outlook.

This multi-author contribution covers almost all the major as well as significant ramifications of IT. These include, for instance, data and information processing, 'democratic' systems design, on-line info systems, and intelligent knowledge-based systems like MYCIN and DENDRAL. Subsections like word-processors, electronic mail, computer-aided design and manufacture, forming parts of chapters, are also adequately dealt with. In the chapter dealing with 'democratic systems design', the argument developed that 'the most effective systems are those that are designed by the proposed users' is a clear warning to those intending to buy off-the-shelf systems.

While most of the contributors are well known for their knowledge of, and experience with, the systems they have dealt with, one of the contributors needs to be singled out. Not so much for his name as for his motivation. He is Lawrie Moore, the author of 'The Unknown Generation', who prefers his title to the well-known 'Fifth Generation of Computers' (of

Japan). Moore 'grew to dislike the confines of accountancy' and developed a lasting interest in computers at Birkbeck College.

A chapter which should interest Third Worlders is "IT and North-South Divide" by John Bessant. Can technologies of the nature of IT, because they can cope with shortages of skills, among others, be applied in developing countries? No, says Bessant, because the essence of embodied technology rests with the supplier. Put differently, it means microelectronics will exaggerate the growing rift between the technologically 'progressive' and the 'declining' economies.

The book's concluding chapter "Towards the Twenty-first Century" sounds symbolic of the AI specialists' obsession with futurology. But here the treatment is not the usual fanciful or dismal approach as it emphasizes the time-scale involved in technical take-up. The chapter pays particular attention to cable information systems. Whether the future belongs to Artificial Intelligence or 'Artificial Intelligentsia' is still an unknown in the Technology-Society equation.

Technical in character, the book is also addressed to the intelligent man in the street.

P.S. Shankar

The Lively Membranes by R.N. Robertson (Cambridge University Press, Cambridge), 1983. pp. 206. Price £ 12.50; \$ 29.95.

The author of this book needs no introduction to those used to loving the membranes and their myriad wonders. The book makes as lively a reading as his previous one—Protons, Electrons, Phosphorylation and Active Transport—and shows how the teaching of fundamental principles of a subject to non-specialists can be simplified without loss of rigour.

The first chapter provides a general and readable introduction to the versatility of membranes. The next three chapters, which describe in sequence the composition, structure and dynamics of membranes, lay the foundation for a proper understanding of many of the concepts developed in the later chapters, the emphasis being not on chemical formulae but on shapes of molecules and consequence thereof for the formation of various types of lipid structures. The illustrations are vivid and speak a lot more than a mere plethora of chemical formulae. The dynamics of membrane action is so clearly brought out in them with a telling effect.