

offer to the editors is an editorial summary or introduction to each set of papers, contextualising the discussion and viewpoints that follow. This more active editorialising of the content would improve the usability of the volume from an academic teaching perspective. Overall, however, the book presents a range of stakeholder perspectives and its contributors are authoritative. It compliments existing scholarly treatments of the complex view that Internet is the precursor to a global information infrastructure that will ultimately transform the way information is created, stored, transferred, retrieved and used in the modern world. For these reasons, I recommended the book to scholars and policy makers in communication and information technology related disciplines.

REFERENCE

1. B. Kahin., 'Information technology and information infrastructure' in L .M. Branscomb (ed.) *Empowering Technology: Implementing a U.S.strategy*, The MIT Press, Cambridge, MA, 1993.

Harry Bruce

University of Technology, Sydney

Telecommunications in the Pacific Basin: An Evolutionary Approach edited by *Eli Noam, Seisuke Komatsuzaki, Douglas A. Conn*, (Oxford University Press, New York, 1994), pp. xvii + 514, A\$110, ISBN 0-19-508421-7

Reviewing this edition of collected essays is a bit like trying to assess a cookery book. In this case we are looking at recipes for telecommunications development from a country perspective in the Pacific region. What unifies this book, like some of the great cookery books such as those of Elizabeth David, is the strong personality given to this undertaking by the framework established by the editors, especially Eli Noam.

This volume sets its sights high. "The subject of this book is the telecommunications systems of the Pacific region - their past, present, and future. Their evolution provides an abundance of rich material, yet it had not been previously comprehensively presented and analyzed". This prefatory comment is both ambitious and, perhaps, misleading. This book is strong on the past and contemporary situation: its contributions are less interested in the hazardous business of trying to discern and describe possible emerging futures.

The focus is on the Pacific region - a sphere of influence defined solely by a sense of propinquity associated with ocean waters. There are fourteen country case studies, as well as the regional grouping of the Pacific Island Nations. The United States, Canada, Japan, Singapore, Australia and New Zealand represent the mature, OECD economies in the region. The other country case studies represent the emerging East Asian economies.

I suspect that the lasting contribution of this book will be found in the attempt to essay a theoretical framework for telecommunications development, particularly the introductory chapter by Eli Noam. Noam identifies three evolutionary stages in telecommunications development, as follows (page 17):

1. The cost sharing network. Expansion is based on the logic of spreading costs across many participants, and increasing the value of telephone interconnectivity.
2. The redistributory network. The network grows through politically manipulated transfers among users.

3. The pluralistic network. The uniformity of the network breaks apart because the interests of its numerous participants cannot be reconciled, and a federation of subnetworks emerges.

The book is structured around this typology for development. The various country case studies are grouped according to each country's "level of development" within this "evolutionary framework". Noam's analytical framework is well argued conceptually. The basic arguments stand up well against a detailed statistical analysis of historical trend data for the sector, as I find after directing some independent and concurrent policy studies for some of the country and regional markets covered in this book. Thus I personally find Noam's conceptual framework robust, and helpful for thinking about the distinctive and different policy priorities and industry development strategies that will be appropriate for particular country markets at a particular point of time. This is an important point, and one that counters the views often advanced by international organisations or multinational companies when they argue for the application of "global solutions", most of which tend to be derived from current practice in OECD market economies. It is a pity, therefore, that the analytical models introduced in the first section of the book are not applied more directly to the individual country market analyses that make up most of the book.

Innovative conceptual work always prompts further speculation. This book prompts two important areas for further questioning. The first is touched on by the editors, but not developed. It is noteworthy that in introducing the concept of three stages of network evolution, Noam actually goes on to enumerate four stages. The fourth level of network development is described as:

4. The global network. Various domestic subnetworks stratify internationally and form networks that transcend territorial constraints.

This is where it could be argued that the "logical progression" that marked the historical evolution of networks through Noam's other three stages breaks down. In an era of the internationalisation of markets and the growing interdependence of country markets, there is a complex pattern of interdependence between national economies at various stages of development and sophistication. Hence we now see countries at the earliest stages of telecommunications development participating actively in the newly emerging "global information infrastructure" typified by the rapid growth of the Internet and new interactive multimedia services. To be fair, it must be noted that the Internet phenomenon post-dates this book's publication, but it does raise the question whether historical patterns of development will or can persist in the terms described in these studies. What is the utility of country analysis? Since the preparation of the contributions to this book the tensions between country specific context and the pressures of borderless markets has increased dramatically. Future studies will need to address these tensions more directly.

The second question prompted by this book is whether the trend of the "evolutionary model" towards some point of natural equilibrium is likely to hold true. Once we recognise that we live in a world of "networks of networks", then we need to look at the generational lifecycle of telecommunications investment, whether at a country or company level. With the transition from analogue narrowband to digital broadband networks, advanced OECD economies are confronting serious challenges of infrastructure renewal that reintroduce policy parameters of network coverage, capital formation and cross-subsidisation that we thought we had left behind following the attainment of "universal service". The challenges of infrastructure renewal in OECD countries are putting pressure on the established policy and regulatory regimes geared to a mature market environment. This raises the question of whether we are not heading towards a mix of "development stages" within country markets as much as between them.

Overall, this book addresses two great gaps in the market. First, it addresses the lack of attention to the differences in Asian and developing markets from the conventional wisdom which has evolved from OECD markets. Secondly, this book helps to fill the gaps in our knowledge about the sector and policy context of telecommunications in specific countries in the Asia Pacific region. The interest here is not so much on the country surveys of the advanced economies of the US, Japan, and Australasia - even though their representation in this volume is important to establish context - but on the markets of Asia which continue to be poorly understood.

Going to print on telecommunications is a hazardous business. The shelf life of many studies is short, given the rapid pace of sector development and change. How does this book fare? This volume was published in 1994 after a long gestation. Its intellectual framework was shaped as far back as 1988, when a conference of the authors was held. Not surprisingly, much of the actual data is not current, and the scene has moved on dramatically in many of the countries surveyed. For example, in Australia, New Zealand, Hong Kong, Malaysia, and Indonesia recent developments since publication make the particular chapters look very dated.

But contemporary developments, since publication, will continue to be shaped by the legacy of sector origins, and of what might be described as the distinct policy cultures in these different country markets. It remains difficult to lay ones hands on good current data on Asian telecommunications, but the gaps are progressively being addressed, through publications from the ITU and APEC. It is far harder to find wisdom about the more intangible factors shaping policy approaches. The lasting value of this book is in its insights into the cultural and historical factors shaping the local market responses to global industry trends.

In general, this book reflects academic perspectives rather than the reflections of industry participants. Twenty-four of the thirty contributors are academics. Perhaps this explains why the book tends to lack the sense of urgency and of the difficult struggle to find new solutions, and new answers to old questions, of which industry participants are so conscious. Nonetheless, it is a start, in fact a major step forward, to find a book devoted to saying that the old answers will not do.

Terry Cutler

Cutler & Company, Melbourne

New Worlds in Information and Documentation edited by J.R. Alvaraez-Ossorio and B.G. Goedegebuure (Elsevier, Amsterdam, 1994), pp. x + 495, ISBN 0 444 81891 X

This book contains selected papers presented at the 46th Conference and Congress of the International Federation for Information and Documentation (FID) held in Madrid, Spain, in October 1992. Consistent with the Congress theme "New Worlds in Information and Documentation", the papers reviewed "new perspectives currently appearing on the information horizon", within the framework of FID's professional programme (p.v). The editors tell us that: "The selection of papers for these proceedings has been made on the basis of the international character of FID" (p.v). Accordingly, there are contributions from a variety of locations, including France, Germany, Austria, Hungary, the United States, Mexico, South Africa, Hong Kong and Japan. Australia is represented twice in the collection, in the shape