Telecommunications Management and Policy: Australian and International Perspectives *edited by Anna Bodi, Anthony Newstead and Peter B. White,* (Monash University, Graduate School of Management, Melbourne 1992), pp.236, $35.00, ISBN 0-7326-0443-5

This book is based on a seminar for senior managers in Asia/Pacific telecommunications enterprises, held in Melbourne in February 1992. The papers in the book are supposed to cover areas of relevance to contemporary telecommunications management and policy. Accordingly, the papers cover macro-issues affecting telecommunications like deregulation, industry development, and technological change. At the other end of the spectrum the papers touch on such micro-issues as marketing strategies, individual privacy, and team building.

Most of the authors have addressed telecommunications from their particular perspective, usually from nice air conditioned offices in Melbourne, Sydney or Canberra. It is hard to identify which of these cosy insights the senior managers will take back to their respective countries. Little effort is directed towards specifically addressing the telecommunications problems of the developing world. Rather the tendency is to eulogise the Australian experience on the rather tenuous assumption that our regional neighbours have some passing interest in the recent history and politics of Australian telecommunications.

There is one paper that does make a case that the lessons to be learnt from the telecommunications experience of advanced industrial nations like Australia will be relevant to telecoms in the developing economies of the region. This is the paper by Tim Nulty of the World Bank. His paper discusses how the new global and technological environment confronting telecoms in the industrial countries has also impacted on telecoms in developing countries. According to Nulty, liberalisation, privatisation and regulation have now taken the place of network construction as the major focus of World Bank efforts in developing countries.

While Nulty stresses the similarity of telecommunications experience across countries be they developed, developing or less developed, Michael Hutchinson emphasises the uniqueness of each country's telecommunications development. Hutchinson's paper, written from the perspective of one of the major players in the recent restructuring of Australian telecommunications, focuses on the political process that has led to the emergence of the present arrangements for Australian telecommunications.

The Australian experience, while potentially interesting to Australians, is probably of limited relevance to many of the other countries in the Asia/Pacific region. Many of these countries, particularly those in IndoChina, have started off with very little telecommunications infrastructure and an underdeveloped commercial sector. Essentially, what they are looking for is the parallel development of these two sectors. This is quite different from the experience of Australia, United Kingdom, United States and Japan. These have a long history of gradual development of a sophisticated telecommunications infrastructure. The developing nations, on the other hand, are looking for explosive development in both the commercial and telecommunications sectors.

From the point of view of explosive development the paper by Radzi Mansor provides some valuable insights. A feature of this paper is the perception that

privatisation can occur when penetration of telecommunications is in a very early stage. According to Radzi Mansor, privatisation at such an early stage may facilitate industrialisation as well as expediting the penetration of telecommunications through the economy. As a result developing countries like Malaysia have a lot to gain through restructuring and ultimately privatising their telecommunications sectors.

The thesis thus far seems to be that national economic development and telecommunications policy are inextricably linked. However telecommunications policy in the developed countries has had ambiguous results. Bill Melody, for instance, points out that the process of deregulation has, paradoxically, resulted in more regulatory activity than previously. Likewise, the introduction of so-called competition has seen the continuing dominance of the monopoly carriers of the past. One wonders, in spite of the extravagant claims of Michael Hutchinson and Robin Davey, what has been achieved in restructuring the Australian telecommunications sector. Does it really provide a suitable model worthy of emulation by other sectors in the Asia/Pacific region?

Graham Davey, on the other hand, notices potential conflict between national economic and telecommunications goals. He recognises that there is a lack of consensus or mutual understanding on the part of telecommunications and national planners. The solution is more dialogue between the two groups. This is clearly a relevant message for those senior managers operating in the context of a strongly centrally planned, mixed economy.

But planning in the context of a technologically sophisticated telecommunications environment and a developed economy is not unlike planning within the framework of a centrally planned economy. Planning, as Neil Crane points out in his paper, is an extremely complicated process with regional plans being aggregated from the bottom up into a national network plan. The regional plans are therefore the drivers of technological progress in the Australian telecommunications services industry. The regional network planning engineer is the omniscient being hovering above the system and determining the correct timing for the introduction of new technology.

It is interesting to speculate on the role of the regional network planning engineer in the new post-1997 competitive environment. With the competitive imperative to adopt the latest available technology, perhaps the omniscient role of the network planning engineer will become superfluous.

One message for the senior managers of the Asia/Pacific region is that there are many dangers in the rush to deregulation. Kevin Sharp points out that these dangers include the obsession with sales, the loss of market focus and the existence of an experience void. However deregulation does give management the opportunity to reshape the culture of the organisation. Perhaps we are seeing this in Telecom now?

There are many papers in this volume. It is, after all, a record of the proceedings of a conference. If there is one criticism it is that organisers appear to have failed to focus the conference. It should have been a learning experience for our regional neighbours. Instead it appears to have been little different from a conference that would have been directed at an Australian audience. I'm not sure that an Australian audience would have been any more interested than the regional managers.

What I would have liked to see is more on the experience of Asian nations. More papers along the lines of that of Radzi Mansor outlining the telecommunications experiences of specific Asian/Pacific countries would have provided a good backdrop to a useful dialogue between the regional managers and their Australian and developing country counterparts. In particular, the section on an international perspective could have benefited from an overview of telecommunications development in the Asia/Pacific region. This was conspicuously missing from Brian Brogan's discussion of trade and commercial patterns in the region. Kevin Casey from his manufacturer's view point did provide some brief glimpses of interesting developments in the region.

I'm not sure what the regional managers would have gained from the papers on data protection and privacy, the dynamics of management teams and so on. From the point of view of a person who has struggled to make telephone calls in one of the lesser developed countries of the region, many of these issues covered in this set of conference proceedings seemed ludicrously irrelevant.

In the end I'm not sure that I agree with Tim Nulty and the World Bank. I think that provision of suitable infrastructure and increasing the penetration of sophisticated telecommunications throughout the region is much more important than industry structural arrangements. It is this procurement role which will continue to be performed by national governments and international agencies like the World Bank. As Nulty points out in his single footnote, "Telecoms are too critical an infrastructure to be left entirely to the 'markets'".

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Logic and Information *by Keith Devlin* (Cambridge University Press, UK, 1991), pp.xii + 307, $39.95, ISBN 0-521-41031-4.

Keith Devlin is Carter Professor of Mathematics at Colby College, Maine. As a specialist in mathematical logic, he became interested in questions connected with information processing. This book was written largely during a two-year period in the late 1980s at the Center for the Study of Language and Information at Stanford University.

What is the relevance of such interests for the research and policy discussions that feature in *Prometheus*? Science and technology are both information and we are accustomed to the assertions that S&T have a vital role in economic growth and development. The emphasis is usually placed on the positive, stimulative effects, rather than on the dangers; and as Michel Menou suggested in his paper for the 1993 International Information Research Conference in France last July, the linkages between information investments and the achievements of specific development goals are far from self-evident.

Devlin begins by harking back to John von Neumann's 1949 speculations that "we are not too far from the limits which can be achieved in artificial automata without really fundamental insights into a theory of information". Of course, it was also von Neumann who long ago drew attention to the shift of science away from the concepts of energy, power, force and motion, to concern with problems of control, programming, information processing,