The Information Systems Research Challenge *edited by F. Warren McFarlan* (Harvard Business School Press, Boston, 1984) pp. 420, $87.40, ISBN 0-87584-161-9.

In the 1983-84 academic year, Harvard University Graduate School of Business Administration celebrated its seventy-fifth anniversary. As part of the celebrations, the faculty organised sixteen colloquia on various topics. This book contains the proceedings of one of the colloquia which had, as its subject matter, various research issues within the information systems discipline. Specifically, the editor of the proceedings states that there were five objectives: first, to highlight the research needs of the field so as to influence the future amount and direction of research; second, to facilitate sharing research ideas among research communities; third, to focus debate on research methodologies; fourth, to encourage IS researchers to explore different research topics and approaches and persuade faculty from other disciplines to engage in interdisciplinary research; and fifth, to communicate to university administrators and other interested faculty the nature of the dominant IS research themes.

The papers in the proceedings are organised according to the four major research topic areas addressed at the conference. The chairman for each topic area has provided an introduction and motivation for the papers in each area. After each paper there are edited notes of the discussion that took place among working groups organised to examine and evaluate the paper. Finally, at the conclusion of the papers for each topic area, the chairman has provided a summary of the major research themes identified among the papers and the ensuing discussion. In short, the proceedings are well organised, the introductions and summaries provided by the chairmen are high quality, and the texts of the discussions that followed the papers contain some useful insight and debate.

As might be expected, the topic areas chosen for the conference reflect a Harvard bias of what constitute the major research areas in the information systems discipline. The first topic area is management support systems (MYSS) — data support systems, decision support systems, and executive support systems. The first paper, by Scott Morton, presents the results of a literature review of 300 articles in the MSS area with a view to identifying the focus of the existing research and those areas where research is missing. For the aspiring researcher in the area, it provides a very useful overview of what has been done and what needs to be done. The second paper, by Benbasat, identifies several major research issues in the area and discusses the strengths and limitations of various research strategies that might be used to investigate these issues. The analysis of research strategies is insightful, and the paper ought to be read by anyone with an interest in undertaking research in the MSS area. The third paper is by a practitioner, Crawford, and he examines some real-world issues that he believes deserve research attention. I did not find the paper especially useful; the topic areas listed are well known, and his discussion is too broad to allow specific research topics to be identified.

The second topic area is information system technology and organisation. The first paper, by Weick, stresses the important role that theories play in affecting the choice of research methodology used to examine a research issue. He argues that a richer understanding of organisational phenomena will come

about if we purposefully consider the world from different theoretical perspectives. In general, I am an admirer of Weick's writings, but this paper reflects that he is an outsider to the IS research community. It is not well grounded in the existing IS research and, as a consequence, it is not a good reflection of the current status of organisational IS research, nor of where the research is going. The second paper, by Mohrman and Lawler, supposedly provides a review of theory and research on the topic of how information technology affects organisations. In fact, the paper provides only a limited and cursory review of some prior research, and instead it focuses on three recent studies that have examined the effects of office technologies on organisations. The paper is interesting and insightful, but in places I found it difficult to read and understand. The third paper, by Rogers, seeks to explain some of the impacts of office automation on the basis of communication, sociological and organisational behaviour perspectives. It contains some useful analysis in parts, but overall the paper is too superficial to provide clear insights and directions to guide future research. In short, I found the papers in this section of the proceedings to be the most disappointing. They were written by distinguished researchers, but not researchers who have made their names in the IS field, and the papers suffer as a consequence.

The third topic area is management of the information systems resource. The first paper, by Nolan, presents a revised version of his stages theory of computer growth. In spite of its popularity, I am not an admirer of the stages theory in its current state. Presumably the growth curves of all living systems follow a sigmoid shape, and the empirical data marshalled in support of Nolan's theory is equivocal, to say the least. Nonetheless, he provides a clear analysis of how technological discontinuities might affect the theory, and in this light the problematical nature of the theory becomes more apparent. The second paper, by Couger, examines how changes in IS technology are affecting IS personnel management policies. In particular, he discusses how increasing levels of maintenance work and end-user computing are affecting recruitment and selection, motivation, performance measurement, supervision and leadership, goal setting and feedback, and career path guidance. It is a pithy paper. The third paper, by Reynolds, a practitioner, argues that the delivery of information systems services should be regarded as a business within a business. Accordingly, the management of IS ought to focus on macroproductivity issues — specifically the problem of making IS relevant for its users. This is a good paper, and it provides an interesting perspective on the problems faced by a real-world manager. The discussion is also sufficiently cogent to enable a researcher to elicit a number of researchable topics.

The fourth topic is information systems technology and corporate strategy. The first paper, by Mason, presents an historical overview of how the three forces of technology, concepts of information, and organisational structure have gradually converged so that they are now almost indistinguishable from one another. It provides an interesting and useful background to the topic area. The second paper on current research issues in the area is also by Mason. He surveys a number of approaches to undertaking IS planning in the light of the business strategies developed for an organisation. Again, this is a useful paper as it highlights the strengths and weaknesses of the various approaches and points to several research topics. The final paper, by McFarlan, supposedly provides an alternative perspective on current research issues in the

topic area. I am not sure why the perspective is different from Mason's; in my opinion they are similar and complementary. Nonetheless, McFarlan provides a useful discussion on five broad research issues: how IS technology can be used as a competitive weapon; how the competitive environment influences IS strategy; how corporate style and culture affect IS strategy; how organisational learning affects the management of technological diffusion; and how information systems should be managed as products.

In a fifth section of the conference proceedings, senior academics from leading information systems research institutions present a summary of the research strategies employed within their institutions. These summaries are interesting from two perspectives. First, they reflect the diversity of types of research in the IS discipline and the lack of an apparent central theme in the research pursued. Second, for the would-be Ph.D. student or the academic seeking a suitable environment for a sabbatical leave, the summaries indicate the research biases that will be found in the different schools.

As I indicated at the outset of this review, the topics chosen for the colloquium reflect a Harvard bias on what is appropriate research within the IS discipline. For some of us there are some glaring omissions in the topics covered; for example, research on systems analysis and design is largely ignored, and there appears to be little concern with the deep structural and theoretical underpinnings of the discipline. On this last issue, the proceedings reflect a situation that now troubles a number of researchers in the discipline; namely, that IS research seems to represent a hodgepodge of activity with poor theoretical roots and little concern for building a cumulative body of results that are robust across time. I have argued elsewhere that this is an inevitable result when disciplines pay insufficient attention to theory building and to the articulation of what Thomas Kuhn has called a paradigm.

In spite of these reservations, however, I highly recommend the book to researchers in the IS discipline. There is a wealth of research ideas presented in the various papers and commentaries, and in general the papers are high quality, innovative, interesting, and informative. The demise of the Australian dollar makes the book expensive, but it is well worth the money.

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Towards a Cashless Society *by the Technological Change Committee of the Australian Science of Technology Council (ASTEC)*
(AGPS, Canberra, 1986) pp. xi + 175, ISBN 0-644-04999-5.

"EFTPOS is not a Greek Island. It is an abbreviation for electronic funds transfer at the point of sale and is one way for paying electronically for goods one buys". So begins this report of the Technological Change Committee of ASTEC, in a straight forward, jargon-free style that carries through most, if not all, the subsequent nine chapters and 175 pages.

It is a comprehensive and scholarly exposition (225 references) that canvasses important issues surrounding this societal transformation of which we are all a part, whether we like it or not. By its pervasive and multi-fronted