

to think that the environment might genuinely become part of the dominant social paradigm — which after all is a system influx, comprising many individuals. Individuals are a key to system reform, and perhaps some will read Beder's book, and find a new road from Rio.

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New Technologies and the Firm: Innovation and Competition edited by Peter Swann (Routledge, London, 1993), pp. 383, £45, ISBN 0-415-08218-8

In the UK, academic research is increasingly being targeted to deal with industrial and economic problems through special initiatives of the funding councils. This book comprises a collection of papers resulting from one such initiative, the UK Economic and Social Research Council's Research Initiative on *New Technologies and the Firm*, which supported fourteen academic projects between 1988 and 1992. The Initiative was based on the conviction that Britain's long-term economic decline stems to a great extent from the failure of the nation's firms to invest in new technologies sufficiently to maintain their competitive position in the world economy. The reasons for this are complex and long-standing, but the Initiative and this book focus on five areas: (a) the need for business organisations that are able to manage rapid technological change; (b) the need for a workforce with the skills required to develop, exploit and adopt new technologies; (c) the need for firms to understand the markets for innovative products; (d) the 'short-termism' of the UK financial system; and (e) the need for firms to collaborate both with users and suppliers and also with strategic partners in the development of technology and innovations.

The fifteen chapters in the book report on research projects that examined these issues, mainly by means of surveys and case studies of selected firms and sectors involved in the development or adoption of technology-based products and processes. A number of useful conclusions and conceptual ideas emerge from these studies, although much is really confirmation of what is already known from other work. For example, what the book's editor, Peter Swann, terms 'expertise, competence, know-how, knowledge, learning and skills' appears as a key enabling factor in many of the studies. Firms that implement technology successfully do so because they have access to knowledge beyond that required by the technology itself. In innovative product development, there is a need for specialists in design, manufacturing and marketing to be in close contact. Successful firms are organised so as to facilitate this multi-functional communication. The risky nature of innovation is an important factor behind the resistance to change and short-termism that afflicts so much British business. Another inhibiting factor, confirmed by this research, is that more senior British managers have backgrounds in finance and accounting than their rivals in Germany and Japan.

For me, the papers that reported on the most interesting and original research were chapter 3, by Ian Smith *et al.*, on the role of small firms on innovation; chapter 5, by Janette Webb and David Cleary, on user-supplier relationships in the computer systems industry; and chapter 11 by Alan Cawson, Leslie Haddon and Ian Miles, on the innovation process in consumer IT products.

Smith *et al.* show that high technology small firms can play an important role in generating innovations at the early stage of the industry life cycle, as well as in adapting known technologies for niche markets. However, innovative small firms remain financially vulnerable (a third closed soon after introducing their innovation) and, contrary to British Conservative Government faith in their key role, seem unlikely to play a very significant role in the economy. Webb and Cleary show that suppliers of computing technology regard major customers as a valuable source of information and expertise for product innovation, and that successful firms made good use of informal feedback from users in developing new systems. This theme is developed further in the Chapter by Cawson, Haddon and Miles, also in the context of the IT industry. They present the innovation of consumer IT products, such as compact discs, video recorders and e-mail, as a dynamic, cyclical process which encompasses the modification of products in response to customer feedback and use after sale, as well as the original research, design and development.

Overall this book provides much of value and stimulus to academics working in the areas of innovation and technology management. Whether the book will reach industry, government and trade unionists, as intended by the ESRC Research Initiative, is doubtful. Managers will not find best practice guidelines, nor will policymakers have unambiguous conclusions to work from. The book shows that exploiting technological innovation to economic advantage at firm or industry level is both complex and difficult.

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The Commercialization of News in the Nineteenth Century by *Gerald J. Baldasty* (University of Wisconsin Press, USA, 1992), pp. xii + 227, US\$19.95, ISBN 0-299-13404-0 (pbk).

Gerald Baldasty's study of the development of news and newspapers during the nineteenth century in the United States is a timely contribution to a matter of immediate interest. While late twentieth century newspaper publishers struggle with attempts to reinvent themselves in a promised world of interactive electronic media systems, Baldasty shows how American newspapers developed in equally turbulent times.

American newspapers originated as mouthpieces for individual politicians or political parties. Readers expected that they would be partisan and that they would espouse the views of their political sponsors. Also, readers know that many newspaper editors were political activists who organised party meetings, drafted political platforms and recruited candidates. Readers were aware that most newspapers depended on financial subsidies from local, state and federal politicians. Sometimes these subsidies involved direct financial support. At other times government publishing contracts provided subsidies in disguise.

But by the middle decades of the nineteenth century, demographic changes and changes in the political process led to a de-emphasis on politics and advocacy. Newspapers moved from the political realm and became businesses. Baldasty discusses three kinds of changes. The first was that the nature of politics changed so that politicians became less dependent on the press as a means of communicating with the electorate. As a consequence politicians