

What Will Be

by Michael Dertouzos

published by HarperEdge, 1998
368 pages, US \$15.00,
ISBN 0-06-251540-3

Review by:

Paul Grefen, Computer Science Department,
University of Twente, grefen@cs.utwente.nl

Summary of the book

"What Will Be" is Michael Dertouzos' view on the role of information processing in tomorrow's world. He elaborates his view around the central – very central – concept of the Information Marketplace. The Information Marketplace is a "twenty-first-century village marketplace where people and computers buy, sell, and freely exchange information and information services". The current Internet and World Wide Web are only a first modest step towards the Information Marketplace.

A walk through the contents

The book is organized into three main parts and an afterword. The first part, "Shaping the Future", discusses developments from a technical point of view. It first paints the overall vision around the Information Marketplace concept. It then shows how the information revolution unfolds from the past into the future – starting in the era of the time-shared mainframes. It continues with a discussion of advanced user interfaces and new software tools and their applications, discussing issues like speech processing, virtual reality, haptic interfaces, automatization tools (distinguished by the author from 'automation tools'), group- and telework software, and information hyper-organizers. The first part ends

with the concept of information infrastructures. A main point of view is that information to be exchanged is both passive information ("information nouns") and information processing ("information verbs").

The second part, "How Your Life Will Change", paints the picture from the human perspective. Six aspects of life are discussed: daily life, pleasure (including "forbidden pleasures"), health, learning, businesses and organizations, and finally government. For each of these aspects, the impact of developments in information technology is sketched. Some of the predictions are easy to imagine, others may be found less likely by some readers. Examples of the latter are applications of haptic interfaces for computer-mediated person-to-person communication and fully automated household environments.

In the third part, "Reuniting Technology and Humanity", Dertouzos builds the bridge between the first two parts by looking at society. He first gives his view on the value of information, discussing economic aspects, information overload, and the influence of information on the gap between rich and poor, employed and unemployed. Then, the focus is on the two elements of the Information Marketplace that will most influence tomorrow: "electronic bulldozers" and "electronic proximity". Electronic

bulldozers are the tools of tomorrow that allow us to offload brainwork – like tools developed in the industrial revolution have offloaded muscle work. Electronic proximity allows us to be close to people that are geographically far away, with all possibilities and problems coming with this. The third part of the book is concluded by placing all developments in the context of the limitations of the “ancient humans” that we all are.

Target audience

As many in Dertouzos’ audience have been asking not only what will be, but also what to do, the afterword of the book contains what-to-do agendas for various groups of people: individuals in the industrialized world, those who want to help the poor, those in business, the technologists, the humanists, and governments.

“What Will Be” is both an interesting and an entertaining book to read. For non-computer-experts, the book explains important developments in information technology and its applications in society. For most computer scientists, it will not bring too many new technical details. It does, however, place the myriad of developments that we have seen in the past and that we are likely to see in the future into a welcome perspective, both from historical and content-wise points of view. In doing so, it helps taking a step back to get a clearer overview of what is going on – taking more than information technological developments only into account. Sharp analogies are used throughout the book – helping the “expert” reader to take a second look at familiar things.

Reviewer’s appreciation

Dertouzos manages to keep discussions fun to read by illustrating them with situations from his rich background as director of the MIT laboratory for computer science. Many descriptions of realized developments come from this context – something that is clearly stated in the preface of the book to account for a certain skew. Sometimes an even broader background is used to illustrate things: the concept of the Information Marketplace was inspired by the Athens flea market – Dertouzos’ Greek background is sprinkled throughout the book, giving it a nice balance between European and American styles. His writing style, a mix of eloquence and “direct speaking”, makes things a pleasure to read. Many anecdotes and hypothetic stories complement the main lines of the book.

The balance between technological and human aspects makes the book attractive to a broad audience. One need not necessarily agree with all details of projections into the future made in the book, but reading it – and thinking about it – will certainly help making one’s opinion more concrete about the influence that the technology we are developing will have on future society. As such, the book may indeed be a help in bridging the gap between what Dertouzos calls the Techies and the Humies towards a society in which information processing will take a greater and greater role.