

lowing chapter describes the best-known compression techniques. The descriptions are adequate, though excessively wordy (for example, schematic flow charts, themselves unneeded, are given, followed by verbal translations of the flow charts that add no additional information). Stronger is the commentary on implementations of these approaches and implementation problems—this is often lost in the theoretical discussions appearing in the journal literature. The final two chapters continue the discussion, begun in chapter one, of how data compression fits into a computer system. This book includes the printout and discussion of a computer program that statistically analyzes files of text and indicates the effectiveness of several of the techniques given (the book leaves the impression that presenting these programs was the main motivation for preparing the book); also of interest are charts giving counts of characters and character pairs in various kinds of text. One doesn't find many books dedicated to data compression. This book is a useful compilation of some of the most useful approaches. However, the reader should be prepared to devote some time to compensate for inadequacies of writing style.

*University of Chicago
Graduate Library School*

ABRAHAM BOOKSTEIN

Computer Message Systems. J. VALLEE. McGraw-Hill (Data Communications Books Series), New York (1984). xiv + 163 pp., \$34.95. ISBN 0-07-606874-9.

This book deals with what is known as electronic mail, bulletin boards and journals, and above all with computer conferencing. It was written by one of the first people to develop and run successful computer-supported group communication, and one who is equally experienced in the engineering, scientific managerial aspects. The author challenges readers to suggest a more appropriate phrase than "computer conferencing", and this reviewer proposes "networking support systems". Networking, as understood by community organizers and business planners, for example, involves the search for, and mobilization of, resources of all kinds—human, financial, expertise, technological, etc.—through chains of acquaintances to meet complex needs. Matching processes, such as simultaneous searching by both employers with a job-opening and job-seekers, often use networking. So does the Institute of Nuclear Power Operations, a committee whose members need access to rapidly changing information contributed by other members.

"Networking" may, in time, enable large communities to perform wholly new functions that surpass the higher mental functions—thinking, imagining, remembering, learning, etc.—manifested within the brains of individuals by means of a kind of "networking" among the neurons. In that potential lies the importance, the challenge, the sense of wonder of the topic discussed in this book.

The readers most likely to derive value from reading the book are, in addition to some of the 25,000 persons already active in this technical specialty, business professionals oriented to computer information systems, public sector professionals, social workers and others with needs likely to be met by networking. The book will: (1) provide them with new perspectives about the growing needs for networking; (2) acquaint them with the tools to support networking; and (3) inform them about emerging networking support systems and their impact on management. It would be a good text for the vastly growing number of courses on communications for MBAs concentrating on computer information systems (CIS).

Nine case studies are presented. "An Electronic Journal Sponsored by the British Library" and "The 1982 Office Automation Conference" are two examples. In addition, the essential technical, organizational and operational characteristics of computer networks—local area nets, electronic mail, decision support, Videotex, etc.—are explained in simple terms, without jargon. Numerous examples clearly illustrate the main ideas and methods in use. Some of the most valuable features of the book are the numerous tables and graphs reporting data representative of the costs and benefits of most of the tools now in use. Unlike other publications in this area, the book does not raise the reader's expectations to unrealistic heights, and there is little unqualified enthusiasm that is not tempered by the facts. Thus, the reader can expect to come away with a balanced picture. The author has achieved this by a very practical orientation which is blended with an insightful, scientifically sound penetration of basic issues and trends.

Few readers will fail to be persuaded that here we are witnessing a "technological and social leap".

*The University of Michigan
Ann Arbor, MI*

MANFRED KOCHEN