

References

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Book reviews

Information Systems and Networks, by K. Samuelson, H. Borko and G. X. Amey, 1977; 128 pages. (North-Holland, \$17.50)

I found this short (only 120 effective pages) book easy to read but surprisingly difficult to review. It attempts to cover a large theme and I attribute some of the repetition to the trinity of authors whose fondness for twenty words where two would suffice is sustained throughout.

The book appears under the auspices of Unesco and its purpose is defined as being to present practical guidelines . . . for the planning design and management of . . . processing, storage, retrieval and dissemination of information and knowledge. Interestingly the book is also meant to serve as an advisory tool for education and training in developing countries (LDCs). Many readers will be familiar with the practical problems of co-ordinating suppliers, PTTs and expectant users when attempting to implement even modest systems in so-called advanced countries. I would hope LDCs could avoid the farthest fringes of information networks for a few decades yet, at least until they have had a chance to organise a comprehensive education and training programme. Certainly all readers will proceed with caution having met, on p. 8 in regard to teamwork and multi-disciplinary orientation (sic), 'the methodology should be understood by each of the (team) members, and all should operate on the basis of reasonable but demanding mutual expectations'. The early chapters are a useful list of do's and don'ts for any ambitious systems project and there are helpful hints that data and methodology (that word again) are no substitute for judgement. What is missing, as so often in this type of book, is any nod towards the sheer bloodymindedness, obstinacy and unhelpfulness of the majority of homo sapiens with whom one is likely to be dealing on any major project involving change and uncertainty.

Regarding preliminary tasks I have found the review of past literature a fixation of the civil service mentality and of strictly limited value. Past skeletons emit the odour of decay and it is best to attempt to be a new and energetic broom. It is true that the involvement of top management is important but unfortunately it cannot be guaranteed—there may be valid political reasons for favouring an arm's length approach.

The section on analytical techniques is rather sketchy; it is not possible for analysts to ask 'are things being done in the right amount?'. The design of alternative solutions follows logically from the analysis and it is correctly stated that today's new system soon becomes subject to examination and updating.

Moving on to 'Operations and Systems Implications' the book edges a little closer to the people problem. There is an important statement that the technical man (e.g. project manager) may not realise (as would apparently an experienced manager) that the members of an organisation will feel less threatened by change if they have some control over their own destiny. Albert Booth has made the same point recently—industrial democracy is the price we will have to pay for the rapid adjustment to 'chip technology'.

Management information systems for administrative decision making are well covered, though again 'communications techniques that effectively annul space and time between people' is an absurd

overstatement of current offerings. There is an interesting attempt to dissect types of information and relate these to operational levels in management hierarchies. It should be more clearly said that several previous attempts at 'full utilisation of mind augmenting resources' have been costly disasters and that many practitioners now opt for the piecemeal approach which has implications for the scope of trials and pay-back.

I turned to 'Networking and Perspectives' in the hope that the whole exercise would be put in context; however I would be wary of a 'Master of Systems, Cybernetics and Informatics'—he it would be who could write, without tongue in cheek, 'these hybrids (networks) are "constitutive", i.e. their characteristics are not "summative" but amount to much higher magnitudes than the sum of the isolated parts'. Never fear, gentle reader, that 'through combinatory thinking we can advance to hitherto unforeseen levels of abstraction and new extensions of reasoning or augmenting of the intellect', come back de Bono all is forgiven! And what are we to make of 'symbiotic cross fertilisation'? Well may the perplexed systems analyst regret his Auntie paying for the correspondence course and search the small ads for a quiet life in insurance with real people with real problems. 'Formalised concepts' are to be our watchword—what a hope in today's chaotic business world trying to adjust to the sickly seventies. The key element will certainly be man himself and good luck to him as he fights to keep his nose above the 'constellation of proliferating star-nets'. I will not be alone in my sneaking sympathy for 'the guy who took the ball and ran'—at least he was shocked and frightened and aware, unlike the remote authors of this curious book. They really do seem to dream of a 'World brain'. Information may be power, but there is an argument that more means worse.

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Critical Path Precedence Networks, by F. Lawrence Bennett, 1978. (Van Nostrand Reinhold, £18.25)

This book provides a clear description of the theory and application of precedence networks. Explanations are clear and the worked examples are realistic although, as is often the case with this subject, small examples tend to obscure problems encountered with much larger networks. The general presentation of the book is satisfactory, with half of each page left blank for the reader to make notes, although I would hesitate to write all over a book as expensive as this.

In addition to constructing precedence networks and performing time analysis, information is also given on resource allocation and costs, including development of cost curves for cash flow projections and the monitoring of actual project costs. The uses of computers are discussed with examples of computer output. A separate appendix describes several computer packages although their cost and availability is presumably based on the American market.

In conclusion, this book would be a useful addition to any construction engineer's bookshelf, although the material and techniques described could equally well be applied to the fields of research and development or maintenance.

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