debate on issues of technological change in Australia. It will be of great value to students in Technology and Society and related courses.

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Choice by Cable: The Economics of a New Era in Television by Cento G. Veljanovski and William D. Bishop

(Hobart Paper 96, Institute of Economic Affairs, London, 1983) pp. 120, £2.50.

Telecommunications has been given a high priority in the industrial policy of Britain's Thatcher government. In the catchwords of the policy makers, telecommunications is being 'deregulated' and 'privatised'. British Telecom's telephone service and equipment monopolies have been dismantled and are being sold to the private sector, and a second commercial television network (ITV Channel 4) has been established. The government has also agreed to the introduction in Britain of direct broadcasting by satellite.

Fourteen per cent of British households with television sets currently receive their signals by cable. The cable systems are permitted, however, to carry only BBC and ITV transmissions and are prohibited from originating their own programmes. In March 1982, the government set up a three-man Committee of Inquiry under Lord Hunt, a former Secretary to the Cabinet, to consider the expansion of cable in Britain. The Hunt Report (Report of the Inquiry into Cable Expansion and Broadcasting Policy, Cmnd. 8679, HMSO, London, 1982) was published in September, recommending that the cable industry be allowed greatly to extend its activities and areas of operation. Cable systems should be permitted to have unlimited channels, to be able to transmit their own programmes, to be partly financed by advertising and to be subject to only minimal government regulation. In December 1982 the Home Secretary announced that the government was broadly in accord with the general approach and particular recommendations of the Hunt Report. In all, the decision by the government to cable Britain and the formulation of public policy on cable took a little over one year.

Choice by Cable has been written in response to the Hunt Report, which Veljanovski and Bishop claim "contains no thorough or systematic analysis of the issues raised by cable expansion" (p. 23), and which "proceeds from recommendation to recommendation by the force of assertion rather than reasoned argument" (p. 100). Implicitly, Cable by Choice sets out to provide a systematic analysis of the proposal to extend cable throughout Britain and to review the policy recommendations of the Hunt Report.

Veljanovski and Bishop argued within a theoretical, free-marketoriented, microeconomic framework. For them, "the central issue in any economic evaluation of the cable industry is the respective contributions of the market and regulation to maximising the welfare of the consumer" (p. 44), and "the objective of cable policy should be to maximise consumer welfare" (p. 108). The authors consider cable television simply as a business activity which they claim is akin to publishing. From this perspective, cable is not imbued with the public interest concerns which have given rise to the principles of public accountability, objectivity and balance that now govern traditional radio and television broadcasting. Cable television, they explain, provides a direct, private relationship between the viewer and the programme supplier. It is, therefore, more economically efficient than broadcasting which is financed either by licence fees (BBC) or advertising revenue (ITV). Programmes available on cable will not be determined by the mass audience, advertisers or by broadcast regulators and administrators, but rather by consumer demand in the market place. Only subscriber-supported television, the authors argue, is able to allow for the intensity of audiences' preferences for programmes, expressed in money terms. Provided there are no artificial limitations to the number of channels, therefore, cable systems will be able to cater more adequately for the diverse preferences of television viewers.

Their analysis leads the authors to the policy implication that the cable industry should be allowed to develop essentially free of government regulation; that is, to the extent, in the direction, and at the pace that market forces determine. More specifically, there should be no enforced separation of cable operators and programme providers (the common carrier concept), no system of granting exclusive cable franchises in respect of limited and defined geographic areas (competition between cable operators for the same subscribers to be allowed), no compulsion for system operators to cross-subsidise the provision of cable in unprofitable areas ('cherry-picking' to be condoned), and no regulation of charges payable by cable subscribers. Veljanovski and Bishop do concede, however, that some regulatory provisions may be beneficial to exclude newspaper and existing broadcasting interests from cable ownership, and to prevent cable operators obtaining transmission rights to certain programmes that are now shown on traditional television (programme siphoning).

A major problem that will face most readers of this book is accepting its approach of working towards policy proposals for cable with such meagre consideration of public interest issues. The narrow concentration on consumer, rather than social, welfare is not so much a reflection of the limitation of economic analysis per se, as of the authors' insistence that the public interest is not significantly affected by the cable issue. Other economists may be more concerned than Veljanovski and Bishop to ensure that the development of cable television does not bring with it a massive income transfer from viewers to the cable industry resulting from viewers being charged for programmes which they now receive without direct payment. Others still will be mindful of the longer term implications on telecommunications, and indeed on our very lifestyles, of the interaction between cable, the telephone network, computers and satellites, and will be influenced by arguments favouring equity of access to the new television and non-television services available on cable systems. Economists taking account on these public interest issues may well derive

different policy recommendations for cable than those proposed in *Choice* by Cable.

Another disturbing feature of this work is that the authors too readily discard policy proposals for cable which conflict with their own. For instance, in discussing the concept of granting common carrier status to the owners of cable systems by separating the functions of cable ownership and programming (as a means to overcome the problems of local monopoly), Veljanovski and Bishop claim (p. 83) that "it is difficult to assess the efficiency of this approach". Two paragraphs later they find that the "common carrier status would not lead to an unambiguous reduction in consumer welfare", but dismiss the concept on the basis that "neither, however, would it promote maximum choice for the consumer' (p. 84). Similarly, they reject the arrangement for a central cable authority to award exclusive franchises for defined areas to cable operators chosen, according to specific criteria, from competing applicants, because "there is no reason to expect that franchising would enhance consumer welfare" (p. 85). However, no alternative procedure for determining the participants in the cable industry and their respective areas of operation is offered.

Choice by Cable occupies the ground at one extreme in the cable debate. It goes considerably further in its advocacy of deregulation than the Hunt Report, and it makes the recent cable report of the Australian Broadcasting Tribunal (Cable and Subscription Television Services for Australia, AGPS, Canberra, 1982), with its recommendations for a multitude of regulatory provisions to govern cable in this country, seem most socialistic. (Unlike the Hunt Report and Choice by Cable, however, the Australian report does not explicitly recommend against the involvement of existing media interests in cable television.) Veljanovski and Bishop's book will be fervently endorsed by those who share the authors' faith in the efficacy of unregulated market forces to maximise the social benefits of cable. Economic and technological sceptics will be less easily persuaded by its argument.

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Dictionary of the History of Science edited by W.F. Bynum, E.J. Browne and Roy Porter

(Macmillan Press, London, 1981) pp. xxxiv + 494, \$45.00 (hb), \$16.95 (pb).

Published in 1981, delayed in reviewing by this writer's preoccupations elsewhere, this valuable book is far from achieving market saturation: indeed, I have yet to read a review or to see a copy in a bookshop.

The editors have organised the work thematically around the core ideas of Western science "in a developmental context" and hence, they say, "we have judged it more useful to have articles on the Atom, the Unconscious, or Mendelism, than on Dalton, Freud or Mendel". Because this is primarily a dictionary of concepts, there is little on the development of technology or clinical medicine, and coverage of the social sciences is only