# *Prometheus* Unbound: 20 Years of Communication Policy Research

GERARD GOGGIN

ABSTRACT   *In this article I review 20 years of writing on communication policy in* Prometheus. *I examine the contribution* Prometheus *has made to three areas of knowledge about communication policy: communication itself, its histories, and broad notions of communication policy; telecommunications; and new communication technology. I suggest that it is in the latter two areas focusing on the technological dimensions of communication policy, that the journal has consistently contributed genuinely innovative work. Here the journal has fostered interdisciplinary writing and enquiry where policy and technology developments most required critique and new ideas.*

Keywords: communication policy, telecommunications, new communications technology, communication history.

## Introduction

Since 1983, the year I entered university, communication has grown vastly as an area of scholarly enquiry, student interest, and policy concern. Communication is central to how human beings know themselves, how they understand their identity and difference, and how they connect to others.

If communication is dress, then in the past two decades, scholars have swarmed all over communication, investigating its warp and weave, tracing its skeins and microfibres, inventing whole new dress ranges, heralding wild and shocking new season fashions, wryly pointing to classic cuts and elegant styles, and mixing the new with the old in interdisciplinary rigour, or pastiche. Communication study is centrally imbricated in rich, dense, and contradictory configurations of humanities and social science disciplines in the academy. There is the rise of communication studies in its own right; the profusion of intimately affiliated sibling disciplines such as media studies and cultural studies; the displacement of disciplines where communication had been studied in the nineteenth and twentieth centuries, such as national language and literature departments (*English* departments, for instance), or classics departments; the shifts in importance of how history was conceived and studied; the fragmentation and specialisation of universities, and

their reconfigured relationships with other knowledge-producing and using institutions, such as those governing (not just government or the state anymore) or those trading (businesses much larger than many national governments); the reformation of universities, how their governors, and the members of their communities saw them, with the deep changes to teachers, researchers, and students as subjects and intellectuals.

Communication, it is often argued, is as old as the ages. Yet startling new insights into communication have been offered in recent years, with the infusion of innovative concepts and perspectives from intellectual and social movements, such as Marxism, feminism, environmentalism, gay, lesbian and queer theory, critical disability studies, postcolonialism and indigenous studies. Communication has been moved to centre stage because of a curious yet utterly pervasive development: its massively fissiparious mediation. Contemporary life in rich societies, and little by little in poor polities too, is life lived in intense communication, prosaic but ceaseless communing with others. Researchers do not necessarily agree over whether we signify more, communicate more with each other, or more effectively (whatever that might mean), or are more sociable—but we do have new ways and means of communication. At the heart of this communicative turn is technology: support, frame, channel, circuit, medium, network. Our new modes of communication are inextricably bound with their carriers. The exchange of messages by mobile phone (SMS is no longer an acronym), as I write, is leading to television shows, the form of which is directly determined by viewers providing their preferences for what is next by text message. The Internet is our galaxy now,[1] as newspaper, radio, and television were. Mass, customised media are infiltrating all the niches of our hybrid convergent digital media platforms. These myriad moments of mediated communication are viewed as the very stuff upon which our societies, economies, and cultures depend.

I start with this sketch of communication's conceptual adventures to provide a context for my discussion of how the work of *Prometheus* and its contributors may be gauged against the developments in this area. 'Technological change, innovation, communication, information and science policy are not disciplines in themselves', the journal's founders observed, 'they lack the foundation and core of established disciplines and many studies have been published in these areas without the benefit of the rigour imposed by traditional disciplines'.[2] With the passage of time, communication has gained in rigour, breadth, and subtlety, and exercises a certain disciplinary force. Yet the archive of communication studies is a vast, sprawling, palimpsest, with overlapping methods, concepts, and traditions. Fortunately, it is communication *policy* that the brave new journal nominated as one of its five concerns. Accordingly, in the following assessment, I reflect on *Prometheus*'s signal contributions and striking omissions in three areas of knowledge about communication policy: communication itself, its histories, and broad notions of communication policy; telecommunications; and new communication technology.

## Communication, History, and Policy

In its first 20 years, from 1983 to 2001, *Prometheus* has published a number of treatments of general issues in communication from a wide range of contributors. In surveying these, however, it is clear that its engagement with developments in the broader field of communication has tended to be most often *occasional*, depending

on the interests of regular contributors with a speciality in communication, and, sometimes, *tactical*, meditating on a communicative dimension of the knotty cluster of topics the editors encouraged debate upon. David Sless, for example, authored a series of articles and reviews raising matters of general import to the field of communication.[3] Justice Michael Kirby's wide-ranging and polymathic consideration of communication is a relatively early, stimulating token of *Prometheus*'s bona fides in communication,[4] while bureaucratic reformer Peter Wilenski mused upon technology change and media policy.[5] The study of rhetoric, an ancient precursor of modern communication studies, and discourse analysis has been well represented.[6]

Media studies, a discipline beginning to stir in the early 1980s, was also an area with which contributors to *Prometheus* engaged. Editorial board member and ceaseless stimulus to colleagues, Henry Mayer, contributed a stringent review of Keith Windschuttle's *Media in Australia.*[7] Virginia Nightingale and Ian Webster draw on media studies work on media audiences in an early attempt to creatively reconstrue computer users,[8] a manoeuvre now much in evidence.[9] While questions of culture have often been discussed in the pages of *Prometheus*,[10] cultural studies, however, has not loomed so large, with its impress only obliquely felt.

The history of communication technology was an area in which *Prometheus* has provided some leading studies. Here, on the 'broad and relatively empty canvas' of the history of technology in Australia, its most notable practitioner, co-founder, and distinguished honorary editor, Ann Moyal, demonstrated the fruitfulness of such an approach to 'depict the major underpinnings—and their social interconnections—of an increasingly industrialised society'.[11] Moyal's pioneering work on technology history took Australia as its subject, but *Prometheus*'s purview always saw the Antipodean set in an international, comparative context. For instance, the journal's interest in comparative communication history, and historiography, is revealed by an inspection of its reviews, such as Dallas Smythe's comprehensive and piquant review of Moyal's *Clear Across Australia*,[12] or, by turns, judicious and trenchant notices on New Zealand telecommunication and broadcast history.[13]

Communication policy in the main has not often been systematically covered by those entering the lists from *Prometheus*'s side, but worthy pieces include studies of the economics and industry structure of media industries,[14] as well as implications of international communication policies of convergence and data flows.[15] Reviewers too have taken an interest in policy and industry studies of these questions.[16]

## Telecommunications

While *Prometheus*'s contributions to the field of communication were important, they were ad hoc and often focussed on Australian rather than world concerns. Where the journal did make a systematic, rigorous, attentive, and broad contribution was in the study of telecommunications. *Prometheus* consistently published leading papers on telecommunications by internationally recognised scholars. Its first editorial board included George Maltby, Overseas Telecommunications Commission, and Ian Reinecke, publisher, journalist, and author of widely read books on telecommunications.[17] *Prometheus*'s review pages provided a steady and judicious coverage of the important books published on the topic, authored by distinguished reviewers.[18]

*Prometheus* steadily charts and analyses developments in telecommunications and telecommunications policy over its 20-year history. The study of political economy telecommunications has advanced by telling studies on subjects such as the International Telecommunications Union,[19] European markets and institutions,[20] and on national telecommunications systems,[21] and regulatory and policy questions.[22]

Despite its central importance as the nervous system of our wired and wireless world, telecommunications is still overlooked by mainstream communication and media studies, cloaked in acronyms and technical obscurities, and perceived as being about dull 'carriage' rather than glamorous 'content'. Here *Prometheus* has provided leadership not only in its sustained critical attention regarding telecommunications, but also because of its fostering of interdisciplinary approaches, such as those focussing on the overlooked social contexts and uses of technology. Moyal's pioneering study of telecommunications history has already been noted, and the journal also carried her ethnographic, qualitative study of women and the telephone in Australia that was influential internationally but also in national policy debates.[23] Other important work has included Grant Noble's important comparative study of use from a social, psychological perspective,[24] a pilot study of telecommunications needs,[25] an intriguing piece on geography of Australian telecommunications,[26] and indigenous Australian adoption.[27]

The journal *Telecommunications Policy* was launched in 1977, six years earlier than *Prometheus*. Its pages have since provided a comprehensive discussion of telecommunications, with contributions by government officials, regulators, consultants, and industry, as well as scholars. Of necessity, its papers are eclectic and variable in their scope and quality. In contrast, while the sum total of *Prometheus*'s bounty has not been replete with detail of developments, they have generally succeeded in providing a *genuinely critical, interdisciplinary* perspective on telecommunications, anchored in a steadily sceptical view of technology, what frames it, and what are its decisive policy contexts.


## New Communication Technology

If telecommunications is the area of communication policy *Prometheus* has systematically covered, the journal and its contributors have also consistently made strategic and influential contributions to the study of new communication technology and policy. Its signal achievement has been to serve as an outlet for well-researched, historically literate, and methodologically self-conscious papers that contextualise and analyse new communication technology.

Studies of the workings and effects of specific forms of new communication technology, takeup, and use have been numerous.[28] More important, however, has been *Prometheus*'s contribution to understanding and refining methodological and theoretical problems in studying new technology. *Prometheus* did not simply reproduce dominant assumptions about new communications technology, such as the role of business use in leading the way with diffusion; it rather challenged received wisdom. For instance, it published important studies of the importance of thinking about the household in relation to new technology and policy.[29] The periodical's explicit engagement with feminist approaches to technology was fruitful here.[30] Two important special issues of the journal are especially significant.

The first of these was a special issue in December 1985 on the recently established Australian Commission for the Future. Bringing together scholars, journalists, and futures, it tackled head-on the difficult issues of thinking about futures, and their relationships to histories:

> Australia has no past of European or even American dimensions, and Australians have relied on the history of others to give them much of what sense of perspective they have. Until recently, little has been required; in a land of plenty it is not difficult to live for today, to drink and be merry . . . There is now some concern about the future, about the survival of whales and rainforest frogs, about nuclear winter and the plight of the Aborigines, but mostly about where the next steak is coming from . . . [Australia] suffers the trauma of the fat man forced to diet. He, too, worries about the next meal.[31]

The phrase 'pulls no more punches' was surely coined for this breathtaking brusque opener, which, in an Australian colloquial turn of phrase, calls the spade of policy solicitude an expedient bloody shovel:

> For his [The Honorable Barry Jones, then Minister for Science] Cabinet colleagues, who approved the venture in 1984, establishing a Commission offered a cheap and easy means of expressing concern about the future without incurring the inconvenience of responsibility. The Commission will survive as long as it does no harm. Whether it can do much good is a matter best left to the authors of the following papers.[32]

The said authors live up to the challenge, in debating the uses and abuses of such a Commission. Noting that a press dismissal of the body as the 'Commission for bulldust', Ian Reinecke writes of the 'genuine radicalism of its vision' and its fundamental break from the customary complacency of technological assessment bodies. 'Its most fundamental contribution', prophesies Reinecke, 'may be the recognition that if there ever was a condition of normalcy, a longing for its return is misplaced'.[33] Robyn Williams, science broadcaster and Commission member, provides an insider account, while other, well-placed commentators place the Australian case in a global context, drawing comparisons with Austrian, US, and UK examples.[34] While the contributors debated technology futures in general, communication was often dwelt upon. Contending that 'we are in the midst of multiple revolutions', Michael Marien in his piece singled out the 'communications revolution' as the 'most obvious of these'.[35] Yoneji Masuda talks of the 'informational revolution', conjuring with a 'Grand Design of the Global Information Society',[36] a little less than a decade before US President Al Gore's Global Information Infrastructure.

A special 1996 issue on 'Communication Futures in Australia' (*Prometheus*, 14, 1) is the second significant volume worth remarking upon. Edited by geographer John V. Langdale, the papers in the collection were selected from a workshop sponsored by the Australian Academy of Social Sciences. It was a response to the heightened policy interest in communications futures from 1994 onwards, with global debates on information superhighways, interest in broadband services, and the growth of the Internet. *Prometheus* aims here to use the resources and perspectives of the social sciences to provide 'new conceptual frameworks'. In his introduction, Langdale decries the domination of communications policy by a 'fairly narrow

technological and economic perspective'. Instead he declares that the study of communications futures:

> inevitably requires a multi-disciplinary perspective, since no single discipline covers the diversity of topics raised. A variety of cultural, economic, legal, political and social issues often needs to be addressed in examining communications futures. Furthermore, these forces operate at geographical scales ranging from the global to the local.[37]

This impressive issue does indeed succeed in its stated goal of illustrating a diverse range of approaches, but through no fault of its own may not have succeeded in broadening the way community and policymakers conceive communications futures. It includes excellent examples of new, interdisciplinary frameworks[38] and ways of conducting social research,[39] as well as important reconceptualisations of telecommunications[40] and television.[41] A number of writers also mark the limits of such epistemic yearnings: Lamberton notes that the crossing of borders inherent in interdisciplinary or multidisciplinary endeavours 'takes more than meeting or publishing together',[42] while O'Regan points to the responsibility of the scholar in 'disciplining' the future:

> Those [including social scientists] engaged with managing television's future each create strategies for dealing with the future which not only represent the future but influence the shape of the future by providing settings of a legislative, industrial, political, critical and yes rhetorical character . . . To an extent, television's future is shaped by the interaction and negotiation of these different communicative positions and the debate cultures they spawn.[43]

*Prometheus* was well-positioned to provide a secure place for the border crossing necessary to apprehend the complex developments in new communication technologies in the latter half of the 1990s. It carried its fair share of pieces on the standard themes occupying much of the quotidian attention of researchers and policymakers, such as the digital divide,[44] or takeup and diffusion of the Internet.[45] However, *Prometheus* also offered serious reconsideration of the touchstones of international development which were published: treatments of the US role in contemporary information and communications sector globalisation,[46] an excellent special issue on digital television (*Prometheus*, 16, 2, 1998) with important pieces on the economic and policy aspects of this much touted technology,[47] a much-needed symposium on e-commerce and the Internet (*Prometheus* 19, 4, 2001),[48] fresh mapping of research challenges,[49] and helpful reviews of the slew of books issuing from the academic presses and policy bodies.[50] Such work represents a genuine attempt to think critically about the character of new communication technology development, and how it matters intellectually. Historical methods, such as those from economic and financial history, proved fruitful for providing different frames of reference for understanding new media,[51] much as they have done since the work of Harold Innes.

## Communicating Research

Over the 20 years under review, *Prometheus* has not kept step with communication research and theory in a general sense, as one might, for instance, find represented

in journals such as *The European* or *American* or *Australian Journal of Communication, Media International Australia*, or *Media, Culture, and Society*, or even *New Media & Society*. Nor have those occasionally or habitually represented in the *Prometheus* stable been concerned to treat or engage with developments in cultural studies, or what has been called the 'new humanities'—although there have been intermittent and fecund joinings with media studies.

While *Prometheus* has made occasional, significant excursions into the expansive field of communication, and of communication policy, it is to the literature on the technological dimension of communication policy that the journal has consistently contributed genuinely innovative work. As remarked upon in an earlier retrospect, 'interleaved through the analysis of contemporary issues, there has been the sheaf of historical articles linking past and present'.[52] Further, work published in *Prometheus* has been in the vein of thinking on telecommunications policy and new communication technology policy, in particular. Here the journal really has fostered interdisciplinary writing and enquiry where policy developments most required critique and new ideas. So its pages have indeed cohered into a 'central and orderly forum' for debate and the diffusion of information, oscillating between the mythic roles of Hercules (saving technology and its harbingers from a 'rather nasty fate') and Prometheus, 'the bringer of hope, the means by which unjust and caring authority could be resisted'.[53]

To where exactly *Prometheus* proceeds from here is an appropriate question for a 20th anniversary. In April 1997 (vol. 15, no. 1), when the publishing of *Prometheus* shifted to Carfax in the UK, the word 'telecommunications' was substituted for 'communications' on its inside cover. A sign of the times perhaps, a sense of achievement certainly, an omen for the future.

## Notes and References

1. Manuel Castells, *The Internet Galaxy: Reflections on the Internet, Business, and Society*, Oxford University Press, Oxford, 2001.
2. 'Editorial', *Prometheus*, 1, 1, 1983, p. 3.
3. David Sless engages with structuralism, semiotics, and contemporary theories of author and writing in his 'Communication and the limits of knowledge', *Prometheus*, 3, 1, 1985, pp. 110–8. See also his review of Anthony Wilden's, *The Rules are No Game: The Strategy of Communication*, in *Prometheus*, 7, 2, 1989, pp. 360–4.
4. Michael Kirby, 'Communications: an Antipodean perspective', *Prometheus*, 6, 1, 1988, pp. 20–33. 'We rejoice in the capacity of communications technology to multiply the outlets of the print and electronic media', Kirby presciently observes. 'We may see in this the vision of a land of a thousand voices. But then be plunged into despondency when we find the same names recurring in the ownership and control of the powerful outlets of public knowledge and information and the sameness of their fate' (p. 31).
5. Peter Wilenski, 'Technological change and its impact on media policy planning', *Prometheus*, 6, 2, 1988, pp. 285–304.
6. For example, see Jean Moran, 'Rhetoric and representation in Australia science in the 1940s and 1980s', *Prometheus*, 1, 2, 1983, pp. 271–89; Richard Joseph, 'Fascinated by the future: interpreting telecommunications policy debates', *Prometheus*, 17, 2, 1999, pp. 153–62; Tom O'Regan, 'Television futures in Australia', *Prometheus*, 14, 1, 1996, pp. 66–79; Joel H. Amernic and Russell J. Craig, 'The Internet in undergraduate management education: a concern for neophytes among metaphors', *Prometheus*, 17, 4, 1999, pp. 437–50; Robert White and Dallas Hanson, 'Rationality and rhetoric in the corporate world: the corporate annual report as an Aristotelian genre', *Prometheus*, 18, 3, 2000, pp. 303–18.

7.  Henry Mayer, review of Keith Windschuttle, *The Media (1984)*, in *Prometheus*, 2, 2, 1984, pp. 288–9. Mayer's remarks carry a certain charge for an Australian readership keenly aware of Windschuttle's later career not as media theorist, but as belligerent in that country's 'culture wars': 'Windschuttle is, in spite of his interest in history, very ethnocentric. He is not sufficiently aware of the variety of media options in different nations, all capitalist. Nor does he ponder why the first US program on Chinese TV was *The Man from Atlantis*' (p. 289).

8.  Virginia Nightingale and Ian Webster, 'Computer users as media audiences', *Prometheus*, 4, 1, 1986, pp. 128–40.

9.  For example, Mark Balnaves, Tom O'Regan and Jason Sternberg (eds), *Mobilising the Audience*, University of Queensland Press, Brisbane, 2002.

10. For example, Harvey May, 'Cultural diversity and Australian commercial television drama: policy, industry and recent research contexts', *Prometheus*, 19, 2, 2001, pp. 161–70.

11. Ann Moyal, 'Telecommunications in Australia: an historical perspective, 1854–1940', *Prometheus*, 1, 1, 1983, p. 23.

12. Dallas W. Smythe, 'One Canadian perspective: *Clear Across Australia*', *Prometheus*, 3, 2, 1985, pp. 431–53.

13. Kevin Livingston's review of *Wire & Wireless: A History of Telecommunications in New Zealand 1860–1987* by A.C. Wilson, *Prometheus*, 13, 2, 1995, pp. 291–5; Robert Schaap, review of *The Remaking of Television New Zealand 1984–92* by B. Spicer, M. Powell and D. Emanuell, *Prometheus*, 16, 1, 1998, pp. 122–6.

14. Allan Brown, 'Diversity, economics and the Australian newspaper industry', *Prometheus*, 1, 1, 1983, pp. 43–59; Keith Acheson and Christopher Maule, 'TV viewers' choice: a tale of three cities', *Prometheus*, 12, 2, 1994, pp. 189–206; Annamarie Chandler, Ellen Baker and Tom Fisher, 'The impact of visual communication innovations on the film industry', *Prometheus*, 17, 2, 1999, pp. 139–51.

15. Meheroo Jussawalla, 'International trade and welfare implications of transborder data flows', *Prometheus*, 1, 1983, pp. 84–97; Jörg Becker, 'Information for all or knowledge for the elite?: the contours of a dissimilar European information policy', *Prometheus*, 13, 1, 1995, pp. 20–31; US Federal Communications Commission economist Jonathon D. Levy's 'Competition and copyright: retransmission of free-to-air television signals by Pay TV services', *Prometheus*, 17, 4, 1999, pp. 387–404.

16. Chee-Wah Cheah, review of *Subscription Television: A Study for the Home Office* by Booz, Allen and Hamilton International (UK), *Prometheus*, 6, 2, 1988, pp. 443–6; Sam Paltridge, review of *Future Directions for Pay Television in Australia* by Department of Transport and Communications, *Prometheus*, 7, 2, 1989, pp. 403–6; Lars Qvortrup, 'Telecommunications and regional development: a research literature review', *Prometheus*, 12, 2, 1994, pp. 152–72; John Henningham, 'Australian journalists' reactions to new technology', *Prometheus*, 13, 2, 1995, pp. 225–38.

17. Ian Reinecke and Julianne Schultz, *The Phone Book: The Future of Australia's Communications on the Line*, Penguin, Melbourne, 1983 (reviewed by John Langdale, *Prometheus*, 2, 1, 1984, p. 140); Ian Reinecke, *Connecting You: Bridging the Communication Gap*, McPhee Gribble/Penguin, Melbourne, 1985.

18. Noteworthy are: Marcellus Snow's review of the Organisation for Economic Co-operation and Development (OECD), *Telecommunications: Pressures and Policies for Change*, *Prometheus*, 2, 1, 1984, pp. 153–5; Peter Robinson's review of Henry Ergas's *Telecommunications and the Australian Economy* in 'Telecommunications and the Australian economy: a view from Canada', *Prometheus*, 4, 2, 1986, pp. 387–90; Herbert S. Dordick, review of *Research on Domestic Telephone Use* edited by Ann Moyal, *Prometheus*, 11, 1, pp. 141–2; Don Lamberton, review of *Telecommunications Demand in Theory and Practice* by Lester B. Taylor, *Prometheus*, 12, 2, 1994, pp. 271–3; Terry Cutler, review of *Telecommunications in the Pacific Basin* by Eli Noam, *Prometheus*, 14, 1, 1996, pp. 118–20.

19. Dallas W. Smythe, 'Radio spectrum policy and world needs', *Prometheus*, 5, 2, 1987, pp. 263–83; Paul Hansen and William H. Melody, 'The international telecommunications union at the crossroads', *Prometheus*, 7, 2, 1989, pp. 254–72.

20. Robin Mansell, Peter Holmes and Kevin Morgan, 'European integration and telecommunications: restructuring markets and institutions', *Prometheus*, 8, 1, 1990, pp. 50–66.

21. See: Richard Joseph's exemplary pair of articles on telecommunications politics: 'The politics of telecommunications reform in Australia', *Prometheus*, 11, 2, 1993, pp. 252–70, and 'The politics of telecommunications reform in New Zealand', *Prometheus*, 13, 2, 1995, pp. 248–66; also, Edward Mozley Roche and Michael James Blaine, 'The Faustian bargain: how Cuba is financing a new telecommunications infrastructure', *Prometheus*, 13, 1, 1995, pp. 72–89.

22. John Nightingale, 'Regulating telecommunications pricing: information requirements of the CPI-X rule', *Prometheus*, 8, 1, pp. 80–95.

23. Ann Moyal, 'The feminine culture of the telephone: people, patterns and policy', *Prometheus*, 7, 1, 1989, pp. 5–31.

24. Grant Noble, 'Social aspects of telephone use in Australia and India', *Prometheus*, 9, 1, 1991, pp. 122–37. Key to Noble's study is the problematic concept of 'intrinsic' versus 'instrumental' use, and the notion of 'telephone obedience'.

25. Kirsty Williamson, Mark Balnaves and Peter Caputi, 'Information, communication and telecommunications: a pilot study of the behaviour of citizens', *Prometheus*, 10, 2, 1992, pp. 311–22.

26. P. W. Newton, 'Australia's information landscapes', *Prometheus*, 11, 1, 1993, pp. 3–29.

27. Lydia Buchtmann, 'Digital songlines: the use of modern communication technology by an Aboriginal community in remote Australia', *Prometheus*, 18, 1, 2000, pp. 59–74.

28. Ann M. Brewer, 'The failure of a new communication technology in a large hospital organisation', *Prometheus*, 1, 2, 1983, pp. 350–65; P. H. Hall, J. J. Nightingale and T. G. MacAulay, 'A survey of microcomputer ownership and usage', *Prometheus*, 3, 1, 1985, pp. 156–73; Jean-Pierre Chamoux, 'French telematics: history, policy and projects', *Prometheus*, 6, 2, 1988, pp. 296–304; Steve Harrison and Lars Qvortrup, 'Information services for rural communities: the "telecottage" project', *Prometheus*, 7, 2, 1989, pp. 303–15; Michael Quayle, 'Value added services: applications, acceptability and policies: the case of teleconferencing', *Prometheus*, 8, 2, 1990, pp. 273–87; Greg Hearn and Abraham Ninan, 'Communicative strategies and the evolution of organisations facing the new turbulence: ICTs as problems and opportunities', *Prometheus*, 15, 1, 1997, pp. 101–10.

29. Tessa Morris-Suzuki, 'The "communications revolution" and the household: some thoughts from Japan', *Prometheus*, 6, 2, 1988, pp. 237–48.

30. Reviews of important titles in gender and feminist technology studies have included: Ann Moyal's reviews of *Gender on the Line* by Lana F. Rakow (*Prometheus*, 11, 1, 1991, pp. 125–6), and of *Women, Information Technology, and Scholarship* edited by H. Jeanie Taylor, Cheris Kramarae and Maureen Ebben (*Prometheus*, 13, 2, 1995, pp. 326–7); Anthony Marsh's notice on the classic *Feminism Confronts Technology* by Judy Wacjman (*Prometheus*, 10, 2, 1992, pp. 334–7); W. Varney, review of *From Barbie to Mortal Kombat: Gender and Computer Games* edited by Justine Cassell and Henry Jenkins (*Prometheus*, 17, 3, 1999, pp. 344–6).

31. 'Editorial: wither the Commission for the Future', *Prometheus*, 3, 2, 1985, p. 213.

32. *Ibid*, p. 214.

33. Ian Reinecke, 'Why a Commission for the Future?', *Prometheus*, 3, 2, 1985, p. 218.

34. D. P. Green, 'The politicisation of futures projects', *Prometheus*, 3, 2, 1985, pp. 222–31; Vary T. Coates, 'Government forecasting and assessments', *Prometheus*, 3, 2, 1985, pp. 232–40; Ernst Braun, 'Technology assessment and futures research', *Prometheus*, 3, 2, 1985, pp. 241–4.

35. Michael Marien, 'How can sleepers waken—and stay awake? Some hopes for the Australian Commission for the Future', *Prometheus*, 3, 2, 1985, p. 252.

36. Yoneji Masuda, 'Three great social revolutions: agricultural, industrial, and informational', *Prometheus*, 3, 2, 1985, pp. 269–74.

37. John V. Langdale, 'Communications futures in Australia', *Prometheus*, 14, 1, 1996, p. 5.

38.  June Lennie *et al.*, 'Bringing multiple perspectives to Australia's communication futures: beyond the superhighway', *Prometheus*, 14, 1, 1996, pp. 10–30; John V. Langdale, 'Social and economic perspectives on Australia's communications future', *Prometheus*, 14, 1, 1996, pp. 39–50.

39.  Patricia Gillard *et al.*, 'Re-engineering telecommunications for the way people want to live: social research in the design of new technologies', *Prometheus*, 14, 1, 1996, pp. 80–9.

40.  Don Lamberton, 'A telecommunications infrastructure is not an information infrastructure', *Prometheus*, 14, 1, 1996, pp. 31–8; Richard Joseph, 'Australian telecommunications policy in an international context: issues for the future', *Prometheus*, 14, 1, 1996, pp. 51–65.

41.  O'Regan, *op. cit.*

42.  Lamberton, 1996, *op. cit.*, p. 37.

43.  O'Regan, *op. cit.*, pp. 66–7.

44.  Bronwyn Howell, 'The rural–urban "digital divide" in New Zealand: fact or fable?', *Prometheus*, 19, 3, 2001, pp. 231–51.

45.  Xueping Du, 'Internet diffusion and usage in China', *Prometheus*, 17, 4, 1999, pp. 405–20; Gary Madden, Scott J. Savage and Grant Coble-Neal, 'Internet adoption and use', *Prometheus*, 18, 2, 2000, pp. 161–74.

46.  Edward A. Comor, 'The United States and the global information infrastructure: orchestrator, functionary, or mediator?', *Prometheus*, 15, 3, 1997, pp. 357–68.

47.  Interesting here is Richard Parker's look at 'Economics' role in the race toward digital TV', *Prometheus*, 16, 2, 1998, pp. 197–208.

48.  The 'E-Commerce and the Internet' Symposium includes two articles focussing on developing countries: Kamlesh K. Bajaj's 'Asia's leap into e-commerce: analysis of developments in some countries', *Prometheus*, 19, 4, 2001, pp. 363–76; J. P. Singh, 'From POTS to e-commerce: what have the developing countries learnt about property rights over the last 50 years?', *Prometheus*, 19, 4, 2001, pp. 347–61.

49.  William H. Dutton, 'The web of technology and people: challenges for economic and social research', *Prometheus*, 17, 1, 1999, pp. 5–20; Rob Kling, 'Social informatics: a new perspective on social research about information and communication technologies', *Prometheus*, 18, 3, 2000, pp. 245–64.

50.  Such as Ashfraf Patel's review of Steven E. Miller's *Civilizing Cyberspace: Policy, Power and the Information Superhighway*, in *Prometheus*, 16, 4, 1998, pp. 545–7.

51.  Richard Sylla, 'The new media boom in historical perspective', *Prometheus*, 19, 1, pp. 17–26.

52.  Ann Moyal, 'Editorial [celebrating the 25th number]', *Prometheus*, 13, 1, 1995, p. 4.

53.  'Editorial', *Prometheus*, 1, 1, 1983, p. 3.