

Broadband

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Connecting

¹ I've moved house on the weekend, closer to the centre of an Australian capital city. I had recently signed up for broadband, with a major Australian Internet company (my first contact, cf. Turner). Now I am the proud owner of a larger modem than I have ever owned: a white cable modem. I gaze out into our new street: two thick black cables cosseted in silver wire. I am relieved. My new home is located in one of those streets, double-cabled by Telstra and Optus in the data-rush of the mid-1990s. Otherwise, I'd be moth-balling the cable modem, and the thrill of my data percolating down coaxial cable. And it would be off to the computer supermarket to buy an ASDL modem, then to pick a provider, to squeeze some twenty-first century connectivity out of old copper (the phone network our grandparents and great-grandparents built). If I still lived in the country, or the outskirts of the city, or anywhere else more than four kilometres from the phone exchange, and somewhere that cable pay TV will never reach, it would be a dish for me — satellite.

² Our digital lives are premised upon infrastructure, the networks through which we shape what we do, fashion the meanings of our customs and practices, and exchange signs with others. Infrastructure is not simply the material or the technical (Lamberton), but it is the dense, fibrous knotting together of social visions, cultural resources, individual desires, and connections. No more can one easily discern between 'society' and 'technology', 'carriage' and 'content', 'base' and 'superstructure', or 'infrastructure' and 'applications' (or 'services' or 'content'). To understand telecommunications in action, or the vectors of fibre, we need to consider the long and heterogeneous list of links among different human and non-human actors — the long networks, to take Bruno Latour's evocative concept, that connect our broadband networks (Latour).

³ The co-ordinates of our infrastructure still build on a century-long history of telecommunications networks, on the nineteenth-century centrality of telegraphy preceding this, and on the histories of the public and private so inscribed. Yet we are in the midst of a long, slow dismantling of the posts-telegraph-telephone (PTT) model of the monopoly carrier for each nation that dominated the twentieth century, with its deep colonial foundations. Instead our New World Information and Communication Order is not the decolonising UNESCO vision of the late 1970s and early 1980s (MacBride, Maitland). Rather it is the neoliberal, free trade, market access model, its symbol the 1984 US judicial decision to require the break-up of AT&T and the UK legislation in the same year that underpinned the Thatcherite twin move to privatize British Telecom and introduce telecommunications competition. Between 1984 and 1999, 110 telecommunications companies were privatized, and the 'acquisition of privatized PTOs [public telecommunications operators] by European and American operators does follow colonial lines' (Winseck 396; see also Mody, Bauer & Straubhaar). The competitive market has now been uneasily installed as the paradigm for convergent communications networks, not least with the World Trade Organisation's 1994 General Agreement on Trade in Services and Annex on Telecommunications.

⁴ As the citizen is recast as consumer and customer (Goggin, 'Citizens and Beyond'), we rethink our cultural and political axioms as well as the axes that orient our understandings in this area. Information might travel close to the speed of light, and we might fantasise about optical fibre to the home (or pillow), but our terrain, our band where the struggle lies today, is narrower than we wish. Begging for broadband, it seems, is a long way from warchalking for WiFi.

Policy Circuits

⁵ The dreary everyday business of getting connected plugs the individual netizen into a tangled mess of policy circuits, as much as tricky network negotiations. Broadband in mid-2003 in Australia is a curious chimera, welded together from a patchwork of technologies, old and newer communications industries, emerging economies and patterns of use. Broadband conjures up grander visions, however, of communication and cultural cornucopia. Broadband is high-speed, high-bandwidth, 'always-on', networked communications. People can send and receive video, engage in multimedia exchanges of all sorts, make the most of online education, realise the vision of home-based work and trading, have access to telemedicine, and entertainment. Broadband really entered the lexicon with the mass takeup of the Internet in the early to mid-1990s, and with the debates about something called the 'information superhighway'.

⁶ The rise of the Internet, the deregulation of telecommunications, and the involuted convergence of communications and media technologies saw broadband positioned at the centre of policy debates nearly a decade ago. In 1993-1994, Australia had its Broadband Services Expert Group (BSEG), established by the then Labor government. The BSEG was charged with inquiring into 'issues relating to the delivery of broadband services to homes, schools and businesses'. Stung by criticisms of elite composition (a narrow membership, with only one woman among its twelve members, and no consumer or citizen group representation), the BSEG was prompted into wider public discussion and consultation (Goggin & Newell). The then Bureau of Transport and Communications Economics (BTCE), since transmogrified into the Communications Research Unit of the Department of Communications, Information Technology and the Arts (DCITA), conducted its large-scale Communications Futures Project (BTCE and Luck). The BSEG Final report posed the question starkly:

As a society we have choices to make. If we ignore the opportunities we run the risk of being left behind as other countries introduce new services and make themselves more competitive: we will become consumers of other countries' content, culture and technologies rather than our own. Or we could adopt new technologies at any cost...This report puts forward a different approach, one based on developing a new, user-oriented strategy for communications. The emphasis will be on communication among people... (BSEG v)

⁷ The BSEG proposed a 'National Strategy for New Communications Networks' based on three aspects: education and community access, industry development, and the role of government (BSEG x).

⁸ Ironically, while the nation, or at least its policy elites, pondered the weighty question of broadband, Australia's two largest telcos were doing it. The commercial decision of Telstra/Foxtel and Optus Vision, and their various television partners, was to nail their colours (black) to the mast, or rather telegraph pole, and to lay cable in the major capital cities. In fact, they duplicated the infrastructure in cities such as Sydney and Melbourne, then deciding it would not be profitable to cable up even regional centres, let alone small country towns or settlements. As Terry Flew and Christina Spurgeon observe:

This wasteful duplication contrasted with many other parts of the country that would never have access to this infrastructure, or to the social and economic benefits that it was perceived to deliver. (Flew & Spurgeon 72)

⁹ The implications of this decision for Australia's telecommunications and television were profound, but there was little, if any, public input into this. Then Minister Michael Lee was very proud of his anti-siphoning list of programs, such as national sporting events, that would remain on free-to-air television rather than screen on pay, but was unwilling, or unable, to develop policy on broadband and pay TV cable infrastructure (on the ironies of Australia's television history, see Given's masterly account). During this period also, it may be remembered, Australia's Internet was being passed into private hands, with the tendering out of AARNET (see Spurgeon for discussion).

¹⁰ No such national strategy on broadband really emerged in the intervening years, nor has the market provided integrated, accessible broadband services. In 1997, landmark telecommunications legislation was enacted that provided a comprehensive framework for competition in telecommunications, as well as consolidating and extending consumer protection, universal service, customer service standards, and other reforms (CLC). Carrier and reseller competition had commenced in 1991, and the 1997 legislation gave it further impetus. Effective competition is now well established in long distance telephone markets, and in mobiles. Rivalrous competition exists in the market for local-call services, though viable alternatives to Telstra's dominance are still few (Fels). Broadband too is an area where there is symbolic rivalry rather than effective competition. This is most visible in advertised ADSL offerings in large cities, yet most of the infrastructure for these services is comprised by Telstra's copper, fixed-line network. Facilities-based duopoly competition exists principally where Telstra/Foxtel and Optus cable networks have been laid, though there are quite a number of ventures underway by regional telcos, power companies, and, most substantial perhaps, the ACT government's TransACT broadband network.

¹¹ Policymakers and industry have been greatly concerned about what they see as slow takeup of broadband, compared to other countries, and by barriers to broadband competition and access to 'bottleneck' facilities (such as Telstra or Optus's networks) by potential competitors. The government has alternated between trying to talk up broadband benefits and rates of take up and recognising the real difficulties Australia faces as a large country with a relative small and dispersed population. In March 2003, Minister Alston directed the ACCC to implement new monitoring and reporting arrangements on competition in the broadband industry.

¹² A key site for discussion of these matters has been the competition policy institution, the Australian Competition and Consumer Commission, and its various inquiries, reports, and considerations (consult ACCC's telecommunications homepage at <http://www.accc.gov.au/telco/fs-telecom.htm>). Another key site has been the Productivity Commission (<http://www.pc.gov.au>), while a third is the National Office on the Information Economy (NOIE - <http://www.noie.gov.au/projects/access/access/broadband1.htm>). Others have questioned whether even the most perfectly competitive market in broadband will actually provide access to citizens and consumers. A great deal of work on this issue has been undertaken by DCITA, NOIE, the regulators, and industry bodies, not to mention consumer and public interest groups. Since 1997, there have been a number of governmental inquiries undertaken or in progress concerning the takeup of broadband and networked new media (for example, a House of Representatives Wireless Broadband Inquiry), as well as important inquiries into the still most strategically important of Australia's companies in this area, Telstra.

¹³ Much of this effort on an ersatz broadband policy has been piecemeal and fragmented. There are fundamental difficulties with the large size of the Australian continent and its harsh terrain, the small size of the Australian market, the number of providers, and the dominant position effectively still held by Telstra, as well as Singtel Optus (Optus's previous overseas investors included Cable & Wireless and Bell South), and the larger telecommunications and Internet companies (such as Ozemail). Many consumers living in metropolitan Australia still face real difficulties in realising the slogan 'bandwidth for all', but the situation in parts of rural Australia is far worse. Satellite 'broadband' solutions are available, through Telstra Countrywide or other providers, but these offer limited two-way interactivity. Data can be received at reasonable speeds (though at far lower data rates than how 'broadband' used to be defined), but can only be sent at far slower rates (Goggin, Rural Communities Online). The cultural implications of these digital constraints may well be considerable. Computer

gamers, for instance, are frustrated by slow return paths.

¹⁴ In this light, the final report of the January 2003 Broadband Advisory Group (BAG) is very timely. The BAG report opens with a broadband rhapsody:

Broadband communications technologies can deliver substantial economic and social benefits to Australia...As well as producing productivity gains in traditional and new industries, advanced connectivity can enrich community life, particularly in rural and regional areas. It provides the basis for integration of remote communities into national economic, cultural and social life. (BAG 1, 7)

¹⁵ Its prescriptions include:

Australia will be a world leader in the availability and effective use of broadband...and to capture the economic and social benefits of broadband connectivity...Broadband should be available to all Australians at fair and reasonable prices...Market arrangements should be pro-competitive and encourage investment...The Government should adopt a National Broadband Strategy (BAG 1)

¹⁶ And, like its predecessor nine years earlier, the BAG report does make reference to a national broadband strategy aiming to maximise "choice in work and recreation activities available to all Australians independent of location, background, age or interests" (17). However, the idea of a national broadband strategy is not something the BAG really comes to grips with. The final report is keen on encouraging broadband adoption, but not explicit on how barriers to broadband can be addressed. Perhaps this is not surprising given that the membership of the BAG, dominated by representatives of large corporations and senior bureaucrats was even less representative than its BSEG predecessor.

¹⁷ Some months after the BAG report, the Federal government did declare a broadband strategy. It did so, intriguingly enough, under the rubric of its response to the Regional Telecommunications Inquiry report (Estens), the second inquiry responsible for reassuring citizens nervous about the full-privatisation of Telstra (the first inquiry being Besley). The government's grand \$142.8 million National Broadband Strategy focusses on the 'broadband needs of regional Australians, in partnership with all levels of government' (Alston, 'National Broadband Strategy').

¹⁸ Among other things, the government claims that the Strategy will result in "improved outcomes in terms of services and prices for regional broadband access; [and] the development of national broadband infrastructure assets." (Alston, 'National Broadband Strategy') At the same time, the government announced an overall response to the Estens Inquiry, with specific safeguards for Telstra's role in regional communications — a preliminary to the full Telstra sale (Alston, 'Future Proofing').

¹⁹ Less publicised was the government's further initiative in indigenous telecommunications, complementing its Telecommunications Action Plan for Remote Indigenous Communities (DCITA). Indigenous people, it can be argued, were never really contemplated as citizens with the ken of the universal service policy taken to underpin the twentieth-century government monopoly PTT project. In Australia during the deregulatory and re-regulatory 1990s, there was a great reluctance on the part of Labor and Coalition Federal governments, Telstra and other industry participants, even to research issues of access to and use of telecommunications by indigenous communicators. Telstra, and to a lesser extent Optus (who had purchased AUSSAT as part of their licence arrangements), shrouded the issue of indigenous communications in mystery that policymakers were very reluctant to uncover, let alone systematically address. Then regulator, the Australian Telecommunications Authority (AUSTEL), had raised grave concerns about indigenous telecommunications access in its 1991 Rural Communications inquiry. However, there was no government consideration of, nor research upon, these issues until Alston commissioned a study in 2001 — the basis for the TAPRIC strategy (DCITA). The elision of indigenous telecommunications from mainstream industry and government policy is all the more puzzling, if one considers the extraordinarily varied and significant experiments by indigenous Australians in telecommunications and Internet (not least in the early work of the Tanami community, made famous in media and cultural studies by the writings of anthropologist Eric Michaels).

²⁰ While the government's mid-2003 moves on a 'National Broadband Strategy' attend to some details of the broadband predicament, they fall well short of an integrated framework that grasps the shortcomings of the neoliberal communications model. The funding offered is a token amount. The view from the seat of government is a glance from the rear-view mirror: taking a snapshot of rural communications in the years 2000-2002 and projecting this tableau into a safety-net 'future proofing' for the inevitable turning away of a fully-privately-owned Telstra from its previously universal, 'carrier of last resort' responsibilities. In this aetiolated, residualist policy gaze, citizens remain constructed as consumers in a very narrow sense in this incremental, quietist version of state securing of market arrangements. What is missing is any more expansive notion of citizens, their varied needs, expectations, uses, and cultural imaginings of 'always on' broadband networks.

Hybrid Networks

²¹ "Most people on earth will eventually have access to networks that are all switched, interactive, and broadband", wrote Frances Cairncross in 1998. 'Eventually' is a very appropriate word to describe the parlous state of broadband technology implementation.

²² Broadband is in a slow state of evolution and invention. The story of broadband so far underscores the predicament for Australian access to bandwidth, when we lack any

comprehensive, integrated, effective, and fair policy in communications and information technology. We have only begun to experiment with broadband technologies and understand their evolving uses, cultural forms, and the sense in which they rework us as subjects.

²³ Our communications networks are not superhighways, to invoke an enduring artefact from an older technology. Nor any longer are they a single 'public' switched telecommunications network, like those presided over by the post-telegraph-telephone monopolies of old. Like roads themselves, or the nascent postal system of the sixteenth century, broadband is a patchwork quilt. The 'fibre' of our communications networks is hybrid. To be sure, powerful corporations dominate, like the Tassis or Taxis who served as postmasters to the Habsburg emperors (Briggs & Burke 25).

²⁴ Activating broadband today provides a perspective on the path dependency of technology history, and how we can open up new threads of a communications fabric. Our options for transforming our multitudinous networked lives emerge as much from everyday tactics and strategies as they do from grander schemes and unifying policies.

²⁵ We may care to reflect on the waning potential for nation-building technology, in the wake of globalisation. We no longer gather our imagined community around a Community Telephone Plan as it was called in 1960 (Barr, Moyal, and PMG). Yet we do require national and international strategies to get and stay connected (Barr), ideas and funding that concretely address the wider dimensions of access and use. We do need to debate the respective roles of Telstra, the state, community initiatives, and industry competition in fair telecommunications futures. Networks have global reach and require global and national integration. Here vision, co-ordination, and resources are urgently required for our commonweal and moral fibre. To feel the width of the band we desire, we need to plug into and activate the policy circuits.

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