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Thesis submitted in fulfilment of the requirements for a Doctorate of Philosophy award within the School of Arts and Social Sciences, Southern Cross University

December 2007 © Fiona Martin
Statement of Sources

I hereby certify that the thesis entitled 'Digital Dilemmas: The Australian Broadcasting Corporation and Interactive Multimedia Publishing 1992–2002', submitted to fulfil the conditions of a Doctorate in Philosophy, is the result of my own original research, except where otherwise acknowledged, and that this work has not been submitted previously, in whole or in part, to qualify for any other academic award.

Signed:

Fiona Martin

Date:
Abstract

From the 1990s onwards the Australian Broadcasting Corporation (ABC) adopted a range of interactive multimedia activities: CD-ROM, web publishing, datacasting and interactive television. Drawing on extensive primary research, this thesis explores why the ABC pursued an interactive multimedia program under a neo-liberal rationality and how online publishing in particular has impacted on its role as a public service broadcaster.

Drawing on neo-Foucauldian governmentality theory and Scott Lash’s critique of information, the thesis examines how the ABC operates as a technology of government in the transition to an informational society. While it considers the ABC as a localised, specific form of public service broadcasting, many of the findings have importance for analysis within the broader field of state intervention in media markets.

It demonstrates that networked interactive multimedia are a communications strategy appropriate to the governance of a globally implicated market-state during a period of informationalisation – characterised by increased symbolic flows, spatial and temporal compression, decontextualised and disorderly relations of information. Public service media will transition this period, characterised by rapid social change and institutional upheaval, where they can incorporate and exploit the informational relations that threaten to diminish their utility as governmental assemblage.

It finds that while ABC executives used technological change to adapt to the enterprise focus of neo-liberal government, the corporation was simultaneously transformed by disorganisational influences pursuing an ethics of internetworking. Contrary to Lash’s ideal schema of institutional decline, disorganisation – embodied in the ad hoc, program-maker led push for internet access and publishing – can become a force for organisational renewal. This is observable in the development of ABC Online, a public access web service.

The conclusion drawn from ABC Online’s emergence is that the era of digitalisation exposes the ABC as a mutable object, a flexible strategy of national communications governance. It is
not exclusively tied to a technical system, such as radio or television, or a practice such as broadcasting. Interactive multimedia such as ABC Online may help the ABC to readdress its contradictory political rationale – the call to represent a coherent national identity in the face of infinite lived diversity – and play a new role in connecting and engaging its users.

This thesis re-examines that role in light of Lash’s observations about the nature of informational power. It explores at length the response to a new self-governing, performative subject, the user of interactive multimedia technology. The user, unlike the audience, is visible, often vocal and social. She negotiates both the space of a multimedia object and dialogic interactions within that space. Her exemplary expertise may rival that of the ABC’s program-makers.

This analysis indicates that in response to informational phenomena, the ABC has re-conceived its space of government, its pedagogy and its production of citizenship in order to remain an effective expression of governmentality. An online ABC may act as a mediatory, contextualising strategy that helps users negotiate the construction and function of difference. It may also be altered by user knowledge. These relations are possible, although preliminary in this research, while the ABC remains wedded to the more disciplinary relations of broadcasting.

The implication is that a digitally networked ABC should not be a self-enclosed institution. It is part of an informational network: a multi-sector innovation system. It should not be divorced from its public or the market except in its ethics of exchange. It is a technology that through its technocultural relations socialises, is shaped by and melds with its sometimes unruly user/citizens. It influences, is influenced by and is part of a volatile mediascape. The ABC is organisation and disorganisation, the rigidity of the one generating the other and then being reincorporated, in a cycle of institutional and industrial change.
How do you contextualise cyberspace? For cyberspace is a realm of desire, disembodied, an Ovidian theatre of love and metamorphosis that entails nothing. It is where Medusa, the objectifier, the body, is slain. Yet all programming points to "objects" in some fashion...We want, not the dead object but the living body in its connections to its world, connections that sustain it, give it meaning.

(Barrett, 1995a: xiv)
Credits

This work would not have been possible without the legacy of the Goldsmith College and Griffith schools – particularly the work of Nikolas Rose, Andrew Barry, Tony Bennett, Gay Hawkins and Liz Jacka. I am also thankful that I finally read Maureen Burns’s thesis in the (then) dying days of this project. We started a similar research project with similar theoretical tools at about the same time and, not surprisingly, ended up with similar conclusions. Discovering this forced me to question my earlier findings and rewrite this thesis in ways that have strengthened it.

My supervisors and colleagues – Christina Spurgeon, Helen Wilson, Gerard Goggin and Rebecca Coyle – encouraged, cajoled and threatened me when I needed it. Importantly, they showed patience when my attention wandered and were generous with their ideas. Many thanks to others who have read sections in various guises and made useful suggestions: Trevor Barr, Jock Given, Wanning Sun and Maureen Burns. Special thanks go to Baden Offord, an intellectual catalyst, and to Rhonda Ellis for tea and etymology.

I have relied on the generosity of many ABC personnel including Colin Griffith, Ian Vaile, Ian Allen, Stephen Rapley, Suzan Campbell, Clare Byrnes, Ian Carroll, Margaret Cassidy, Gabrielle Shaw and Rob Garnsey. I’m also grateful to those staff members who contributed to this work outside the interview process.

I could not have finished this without the support of my partner Jim, or the consolations of making media when I should have been writing. My daughters, Jamilla and Rosie, have not known life without the damned thesis. I look forward to days of undistracted pleasure with them. I also hope this work contributes to a better understanding of the evolution of new media and public service broadcasting in Australia.

Fiona Martin
Clunes, NSW
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<th>Full Form</th>
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<tr>
<td>3G</td>
<td>Third Generation (mobile phone services)</td>
</tr>
<tr>
<td>AARNet</td>
<td>Australian Academic Research Network</td>
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<td>AAP</td>
<td>Australian Associated Press</td>
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<tr>
<td>ABC</td>
<td>Australian Broadcasting Corporation</td>
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<td>ABA</td>
<td>Australian Broadcasting Authority</td>
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<td>AEC</td>
<td>Australian Electoral Commission</td>
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<td>AIM</td>
<td>Australia Information Media</td>
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<tr>
<td>AME</td>
<td>Australian Multimedia Enterprises</td>
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<td>ATVI</td>
<td>Australia Television (International)</td>
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<td>AOL</td>
<td>America Online</td>
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<tr>
<td>BBC</td>
<td>British Broadcasting Corporation</td>
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<tr>
<td>BBS</td>
<td>Bulletin board system</td>
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<td>BNA</td>
<td>Broadcast News Australia (ABC)</td>
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<td>BSA</td>
<td>Broadcast Services Act</td>
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<td>BSEG</td>
<td>Broadband Services Expert Group</td>
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<td>BSkyB</td>
<td>British Sky Broadcasting</td>
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<td>BTN</td>
<td>Behind the News (ABC)</td>
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<td>CBC</td>
<td>Canadian Broadcasting Corporation</td>
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<tr>
<td>CD-ROM</td>
<td>Compact Disc Read Only Memory</td>
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<tr>
<td>CGI</td>
<td>Computer Graphics Interface</td>
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<tr>
<td>CLC</td>
<td>Communications Law Centre</td>
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<td>CMC</td>
<td>Computer Mediated Communications</td>
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<td>CNN</td>
<td>Cable News Network</td>
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<tr>
<td>DEC</td>
<td>Digital Equipment Corporation</td>
</tr>
<tr>
<td>DIST</td>
<td>Department of Industry Science and Technology</td>
</tr>
<tr>
<td>DCMS</td>
<td>Department for Culture, Media and Sport (UK)</td>
</tr>
<tr>
<td>DOCA</td>
<td>Department of Communications, and the Arts</td>
</tr>
<tr>
<td>DCITA</td>
<td>Department of Communications, Information Technology and the Arts</td>
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<tr>
<td>FTP</td>
<td>File Transfer Protocol</td>
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<td>HDTV</td>
<td>High Definition Television</td>
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<tr>
<td>Acronym</td>
<td>Definition</td>
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<tr>
<td>HTML</td>
<td>Hypertext Markup Language</td>
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<tr>
<td>ICT</td>
<td>Information Communications Technology</td>
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<tr>
<td>ILANET</td>
<td>Information Libraries Access Network</td>
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<td>IRC</td>
<td>Internet Relay Chat</td>
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<td>ISP</td>
<td>Internet Service Provider</td>
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<td>ITS</td>
<td>Information Technology Services (ABC): also IT</td>
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<td>iTV</td>
<td>Interactive television</td>
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<td>IPTV</td>
<td>Internet Protocol Television</td>
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<tr>
<td>LAN</td>
<td>Local Area Network</td>
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<td>MHP</td>
<td>Multimedia Home Platform</td>
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<td>MIA</td>
<td>Media International Australia</td>
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<td>MIS</td>
<td>Management Information Services (ABC)</td>
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<tr>
<td>MIT</td>
<td>Massachusetts Institute of Technology</td>
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<tr>
<td>MMU</td>
<td>Multimedia Unit (ABC)</td>
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<tr>
<td>MSN</td>
<td>Microsoft Network</td>
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<tr>
<td>NASDAQ</td>
<td>National Association of Securities Dealers Automated Quotation</td>
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<tr>
<td>NCA</td>
<td>National Commission of Audit</td>
</tr>
<tr>
<td>NII</td>
<td>National Interest Initiative</td>
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<tr>
<td>NGO</td>
<td>Non-Governmental Organisation</td>
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<td>NOIE</td>
<td>National Office for the Information Economy</td>
</tr>
<tr>
<td>NSF</td>
<td>National Science Foundation (US)</td>
</tr>
<tr>
<td>PDA</td>
<td>Personal Digital Assistant</td>
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<tr>
<td>PSB</td>
<td>Public Service Broadcasting</td>
</tr>
<tr>
<td>PVR</td>
<td>Personal Video Recorder</td>
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<tr>
<td>R&amp;D</td>
<td>Research and Development</td>
</tr>
<tr>
<td>RN</td>
<td>Radio National (ABC)</td>
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<tr>
<td>RPF</td>
<td>Regional Production Fund</td>
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<tr>
<td>RSI</td>
<td>Repetitive Strain Injury</td>
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<tr>
<td>SBS</td>
<td>Special Broadcasting Service</td>
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<tr>
<td>SME</td>
<td>Small to Medium Enterprise</td>
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<tr>
<td>SMTP</td>
<td>Simple Mail Transfer Protocol</td>
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<tr>
<td>SMS</td>
<td>Short Messaging System</td>
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<tr>
<td>TAFE</td>
<td>Technical and Further Education</td>
</tr>
<tr>
<td>Acronym</td>
<td>Description</td>
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<tr>
<td>TCP/IP</td>
<td>Transmission Control Protocol/Internet Protocol</td>
</tr>
<tr>
<td>TR&amp;D</td>
<td>Technical Research and Development (ABC)</td>
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<tr>
<td>URL</td>
<td>Uniform Resource Locator</td>
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<tr>
<td>VAN</td>
<td>Value Added Network</td>
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<tr>
<td>VDT</td>
<td>Video Display Terminal</td>
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<tr>
<td>WAN</td>
<td>Wide Area Network</td>
</tr>
<tr>
<td>WAP</td>
<td>Wireless Application Protocol</td>
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<td>WWW</td>
<td>World Wide Web</td>
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Appendix 1. ABC Charter
Appendix 2. List of interview sources
Appendix 3. Chronology

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Table 1. Comparative access factors for Australian media online services
Introduction:

Re-reading crisis

While ‘governmentality’ is eternally optimistic, ‘government’ is a congenitally failing operation. The world of programmes is heterogeneous and rivalrous, and the solutions for one programme tend to be problems for another. Technologies produce unexpected problems, are utilized for their own ends by those who are merely supposed to operate them, are hampered by underfunding, professional rivalries and the impossibility of producing the technical conditions that would make them work. (Miller & Rose, 1990: 10)

In the 1930s national broadcasting was devised as a means of addressing the symbolic problems of the emergent nation-state. In a new millennium it has become a seemingly insoluble problem itself, one that requires endless inquiries, adjustments and debate. This work concerns the fate of public service broadcasting (PSB) when the political imperatives that shaped it have altered radically.

Reithian public broadcasters, after the BBC’s founding Director General Lord Reith, sprang from a social democratic political rationale. Some scholars have predicted a bleak future for this institution under neo-liberal government, communications deregulation and globalisation (see Tracey, 1998; Padovani and Tracey, 2003). Others have documented localised crises – the maladministration and industrial strife within the Canadian Broadcasting Corporation (Skene, 1993, Mosco and McKercher, 2006), the fragmentation of the British Broadcasting Corporation (Born, 2004), and the political assault on the Australian Broadcasting Corporation (Jacka, 2005; Turner, 2005).

Rather than adding to that chorus, in this work I explore how one public service broadcaster tried to solve its dilemmas through technological change – specifically, the meaning of a successful fin-de-siècle turn by the Australian Broadcasting Corporation (ABC) to interactive
multimedia publishing, particularly online services. During the late 1990s many public
broadcasters developed new digital services in response to the liberalisation of
communications markets and the emergence of new media technologies. They tried to retain
audiences in the face of increasing channel supply and to secure revenues to supplement
declining state support. To this end the ABC developed a range of interactive multimedia
products and services: CD-ROM, web publishing, datacasting and interactive television. ABC
executives hoped these would deliver greater content choice and be more responsive to
market demands, in line with neo-liberal economic rhetoric. But ABC Online, the public
access web service, also emerged as a digitisation test-bed, a model for corporate convergence
and an important means of reinventing the ABC’s public service remit. Within five years it
was formally recognised as a third publishing arm of the corporation, and thus as a significant
means of fulfilling its public service mission.

This extension of state-funded cultural activity ran counter to the prevailing political doctrine
of market liberalisation and privatisation. It continued despite budget cuts and significant
internal opposition. This thesis examines two questions: why this strategy was pursued at a
moment of ‘crisis’ and what the outcomes could tell us about the changing role of public
service broadcasters.

Drawing on Foucauldian-inspired governmentality theory and Scott Lash’s information
critique (2002) I will argue that networked interactive multimedia are a communications
strategy appropriate to the governance of a globally implicated market-state during a period of
informationalisation – a process articulating the combined economic forces of digitalisation,
internetworking and marketisation, characterised by increased symbolic flows, spatial and
temporal compression, decontextualised and disorderly relations of information (Lash, 2002:
36).

Considering the ABC as a case study of a governmental strategy allows me to explore, within
a manageable cultural context, what public service broadcasting has historically been for –
and then to ask whether that role remains as the context alters. Lash provides a contemporary
framework for understanding power through information mediation in global capitalism – one
that transcends Fordist tendencies in Foucault’s analysis (Lemke, 2003) and obviates
scapegoating of localised politics for institutional crisis.
Accordingly this thesis will explore its central questions by analysing the ABC’s operations as a technology of government in the transition to an informational society. I will propose that the ABC’s adoption of interactive multimedia technologies, principles and processes recognises that broadcasting techniques cannot fully address the dilemmas of media governance in a globalising, diversifying, digital communications environment. Instead ABC staffers have used networked multimedia to negotiate changing spatial, social and communications orders and to readdress the organisation’s fundamental constitutional difficulty – its call to represent national unity in the face of infinite lived diversity.

ABC Online, the most flexible of these multimedia techniques, has helped the ABC re-conceive its territoriality, its internal and external relations and its pedagogical strategy. ABC Online represents a distinctive diagram for mediating citizenship and for participating in a multi-sectoral industry innovation system. As such I will suggest that the scope of its effect on the ABC’s operation warrants critical reassessment of the institution’s role and functions.

My analysis also queries Lash’s opposition of organisation and disorganisation; the latter form of social power-broking normative, fixed and in decline, the other values- based, dispersed and on the move. ABC Online’s development illustrates how the ABC can be (though it is not always) both. It functions as a heterogenous assembly of technocultures that operate differentially, sometimes at odds with each other, to produce unexpected and innovative results.

An online ABC is not an institution in isolation from its public or the market. It is a technology that socialises, is shaped by and melds with its (sometimes) unruly user/citizens. It influences and is part of a volatile mediascape. The ABC is both organisation and disorganisation, exhibiting a constant tension between discipline and autonomy that produces a cycle of institutional and industrial change.

Background: crisis in the ABC?

My proposals are based on a study of the ABC’s interactive multimedia publishing programme from 1992 to 2002. It was a time of considerable upheaval in the political,
economic and cultural life of that institution as successive federal governments adopted a neo-
liberal economic agenda.\(^1\)

First, following two decades of intense state scrutiny, budgetary cuts and interventions
designed to bring the ABC into line with microeconomic reform of the greater public service,
the corporation was launched into a re-regulated, more competitive broadcasting market in
1992.\(^2\) Managing Director David Hill had undertaken major restructuring to make the ABC
leaner, more efficient and better focussed on its mission (Craik & Davis, 1995), but this
provoked widespread industrial unrest. Hill’s subsequent aggressively commercial push into
new media markets failed, precipitating his resignation. Meanwhile political antagonism, both
to Hill’s lobbying and the ABC’s critical journalistic attentions, had simmered during federal
Labor rule. It then erupted in 1996 with the election of the conservative Liberal-National
Coalition government, led by John Howard, an admirer of neo-liberal politics (Howard,
2006).

The Coalition quickly cut 12 per cent from the ABC’s budget, forcing it to shed over a
thousand staff, to hive off five of its state orchestras, shut down one of Radio Australia's
shortwave transmitters, and to sell its television production site in central Sydney (ABC,
1997a). In a period when News Corporation was entering the subscription TV market and
Microsoft was partnering the leading commercial Nine television network in its web
publishing venture, the ABC was effectively discouraged from expansion.

Long-time ABC historian Ken Inglis noted at the time that the ABC's total reliance on
government funding, its statutory independence and its role as a devil's advocate in public
debate have generated a series of political crises over its lifespan. However he considered the
turmoil “provoked” by the Coalition to be the “most serious” (Inglis, 1997: 5). A subsequent
discourse of crisis surrounded the ABC, and permeated academic debates on its future.\(^3\)

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\(^1\) Here I draw on Stephen Bell’s (2004) Australian analysis of neo-liberalism as neo-classical economic theory,
dealing with the term’s ambiguities later in chapter 1.

\(^2\) The ABC records 35 inquiries into aspects of its operations between 1972 and 1983, culminating with the
Dix Committee of Review, or Dix inquiry as it was known, which began in 1979 (ABC, 1992a: 18).

\(^3\) The changes were the catalyst for academic gatherings and publications (Agarwal, 1996; Frazer and
O’Reilly, 1996) and prompted critical analysis of cuts to international broadcasting (Hodge, 1997). In the
humanities, economic pressures on public broadcasting were read as part of a broader public sector erosion,
in the shift from welfare state to neo-liberal rationality (Pusey, 1996; Osborne and Lewis, 1995).
Yet paradoxically ABC program-makers interested in CD-ROM and the World Wide Web were buoyant about the prospects for establishing new media services. During the first half of the 1990s I worked as a producer with ABC Radio in Ultimo, Sydney. I witnessed staff struggle to convince senior executives that the Internet (then seen as a radical technology) was an important research and publishing tool. Later I monitored their ad hoc, opportunistic assembly of ABC Online, a public access web publishing service. Their determined optimism presumed a significant non-broadcast role and functions for the national broadcaster precisely when the politics of globalisation and market forces, rather than state-sponsored public interest, were dominant. While the corporation suffered what political journalist Quentin Dempster (2000) theatrically dubbed its ‘death struggle’, its CD-ROM works and public access website, ABC Online, attracted growing audiences, awards and public approval.

In the years following my departure from the ABC, I reflected on what drove the corporation to invest in interactive multimedia when it could arguably least afford it. I also questioned the function of the ever-present crisis narrative, finding that other epistemological frames rejected the association of disequilibrium with abnormality. In effect this thesis re-reads the generalised notion of crisis by documenting some of the technological changes used to counter institutional threats. That research, into the reasons for and consequences of interactive multimedia publishing, provides the basis for re-evaluating PSB’s place in a globalising, competitive mediascape.

As an introductory move, I theorise the macro socio-economic background to the ‘crisis’ in PSB. I then situate my inquiry, make some introductory remarks on governmentality, and provide a structural summary of the thesis. This is followed by a fuller account of my methodology and my relationship to the objects of my research.

---

4 Science philosopher Thomas Kuhn (1970) argued a period of crisis preceded a paradigm shift in scientific theories, methods and beliefs – a notion which has been explored in dissipative systems theories (Fonseca, 2002). Freudian psychodynamics also reads states of crisis as developmental (Erikson, 1964) and in Tibetan Buddhism, critical life transitions are known as bardos, junctures at which the possibilities for liberation and enlightenment are increased (Rinpoche, 1992).

5 Mediascape is used in Appadurai’s (1996) sense to describe a transnationally distributed topology of media production and image/narrative flow.
Governing the informational society

The dilemmas of public service broadcasters like the ABC are those of institutions trying to adjust to both neo-liberalism and the broader social and cultural shifts occurring under informational capitalism. As I will outline, many scholars document a changed context for national governance in the late 20th century from a national Fordist logic of industrial economies to a globalised, post-Fordist system. Although there is debate about the totality of this shift, power via control of the means of production has partially given way to power over the information that makes commodification possible. In the West particularly, making services and symbols has eclipsed the profitability of making goods and wealth has been increasingly concentrated in intellectual, more than tangible, properties. As sociologist Scott Lash (2002) contends in his *Critique of Information*, information has become the organising principle for capital and society, and cultural production is integral to the extension of economic power.

Lash’s analysis, which builds on his earlier work on the reorganisation or “disorganisation” of global capital (Lash and Urry, 1994), is one of many attempts to theorise these new arrangements, alongside Bell’s (1973) post-industrial society, Drucker’s post-capitalist knowledge society (Drucker, 1971, 1993) late capitalism (Jameson, 1984, 1998), digital capitalism (Schiller, 1999) hypercapitalism (Rifkin, 2000), cybercapitalism (Mosco and Schiller, 2001), informational capitalism (Castells, 1996, 2000a; Webster 2002) and Empire (Hardt and Negri, 2000, 2004). While Slavoj _i_ek (2004) warns against construing a linear evolutionism of capital, all these models recognise digital information networks as central to new global circuits of production, circulation and exchange, and new patterns of economic inclusion or exclusion.

Using Manuel Castells’s work, easily the most comprehensive and influential sociological analysis of these, it could also be argued that the crises in PSB stem chiefly from national sovereignty ceding to global forces. In Castells’s “space of flows”, his conceptualisation of the fluid transnational networks of capital, people, goods and ideas which now shape political and economic power (1996: 412), the location and determination of national identity become more contested and identity politics more attractive. These shifts, spatial and social, pose major challenges of representation for public service broadcasting, particularly under neo-liberal rule, which favours increased competition to serve emerging markets. Further with
digitalisation (the conversion of analogue communications systems to digital technologies) and internetworking, the mediascape alters: channel capacity may increase, new services can cross national boundaries and competition accelerates.

Where Castells’s overview indicates the broad difficulties of governing in increasingly pluralist, mobile and networked societies there are several reasons I prefer Lash’s schema as the context for examining the exercise of government through PSB.

First Castells’s work separates informational subjectivity from its realisation through technological sociality in a way that is determinist and limiting. His take on the operation of informational power is oppositional – the place-bound individual, the Self, is dominated by and can be excluded from the flows by the elite, transnational relations of informational capital, the Net (1996: 3). While Castells indicates in later work that people in the “space of places”, or everyday sites of lived meaning, can resist this exclusion, he is less clear about how they might instead engage with and exploit it (Hutchins, 2005). I argue such binaries underplay the complexity of systemic relationships between individuals and organisational networks, space and place that have emerged in Western societies during the period under study, and which affect the cultural and economic role of an organisation like the ABC.

Instead I follow Scott Lash’s proposal that a global technological society is a “technological culture” (2002: x), where the Western industrialised subject is as implicated in transnational networks of symbolic production and distribution, as she is in consumption. For Lash the globe’s more ubiquitous flows of information indicate the “collapse” of technology and culture, and new relationships between individuals, media technologies, institutionalised representation and cultural production:

What previously was a representational culture of narrative, discourse and the image which the reader, viewer or audience encountered in a dualistic relation, now becomes a technological culture. Culture is comprised no longer primarily of such representations but instead of cultural objects as technologies that are in the same space with…the user, the player (2002: x).

The domestic user of media and communications technologies is a participant in, and contributor to, Castells’s flows. I understand Lash’s user as a ‘technate’, or technically
literate, being; capable of problem solving, play and experimentation through computer-mediated communication (CMC). She may be able to capture, alter and redistribute institutional texts or create her own. Lash’s work invites consideration of how a cultural entity like the ABC might work to govern such subjects, how they interact to shape the new communications technologies, and how the resulting technocultures disrupt existing governance assumptions and structures.

Second Lash’s ontology of capital poses more extensive insights than Castells for understanding the informational economy and the institutional adoption of new information technologies. For Castells capital growth relies on productivity gains as the “autonomous dynamics” of technological development drive information commodification (2000: 59). Lash avoids this determinism by also discussing shifts in the mode of production – an increase in knowledge-intensive labour, outsourcing of production, an excess of reproduction – which alter organisational rationales for technological change.

In Lash’s Critique informationisation propels global capitalism. In an informational society Lash argues that the value of discursive power/knowledge, as embodied in narrative forms such as paintings and books, is increasingly supplanted by that of messages without propositional logic or legitimating argument – such as stock prices, news stories, patents and brands. The economic utility of this information lies in its ability to be compressed, networked, indexed and “disembedded” or, following Giddens (1990), dislocated from its relationship with place and culture (2002: 26ff). Informational power then lies in the ability to construct commodity value from those communications. Information technologies are those used to structure information labour and secure networked intellectual property relations. Hence the ABC’s development of networked multimedia databases can be interpreted both as a productivity measure and a strategy to organise, store and enable user access, and contribution to, its flows in order to licence and generate revenue from them.

At the same time Lash’s theory poses important questions about the dis-organising effects of informational capital that challenge institutional power, and thus the future of state-funded media. The pursuit of informational power by diverse players, argues Lash, generates an

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6 A contemporary term derived from the Greek technai, skilled in the arts. In the Macquarie Dictionary (1992:1796) it is a counterpart to literacy and numeracy, being “competent in science and technology problem solving, experimentation and communication.”
excess of information, which disrupts and dismembers the social and further reduces
reflexivity: more channels, more choices, and less time to reflect or act on what is consumed.
Informationalisation produces time that is simultaneously faster and scarcer, as individuals
race to apprehend, process and produce more information (Hylland Eriksen, 2001). In Lash’s
account it also produces “technological forms of life” which are so wedded to speed that
reflection becomes impossible and “improvement itself is thrown into question” (2002: 19).
How then does the public broadcaster, which is both pedagogical, in the discursive sense, and
 informational in its digital re-formation reconcile its diverging tendencies? How can it
courage normative standards of reflection and self-improvement as it simultaneously tries
to capture niche audiences with more services?

Lash questions whether there is even a future for representational culture and institutional
fixity in the constant re-production and movement of digital information. In a society of
information excess, he argues identity is expressed less through alliance to traditional social
institutions (church/state/political parties) as through consumption, lifestyle and association. \(^7\)
Externalised representations of identity give way to presentation and performance of those
identities, in movements through space and socialities (Lash, 2002: 90ff). Like Castells, who
documents a decline in institutional trust and a rise in alternative identity formations (1997),
Lash predicts the increasing importance of mobile associations based on values and affect
rather than universal norms or rules. His ‘disorganisations’ are tribal, anti-institutional and
mobile. So informationalisation would appear to further jeopardise the public broadcasting
project of universal citizen reform by disrupting its ability to marshal or instruct a body of
national subjects.

Michael Tracey suggests as much when he writes that the “new television” – by which he
means multichannel, interactive audiovisual services – supports a “retribalization” of the
world and in its “very nature constitutes a fundamental taking apart of that sense of the
collective which is a precondition for public service broadcasting” (Tracey, 1998: 264). Eight
years after Tracey’s declaration we should be able to measure a decline in use of, and public
regard for, this institution. Yet a snapshot of the global information economy at its own first
point of crisis, the NASDAQ crash of 2001, suggests PSB is adapting to informationalisation.

\(^7\) Here I distinguish between social structures and economic institutions, such as currency, which appear to be
less threatened under global capitalism.
After the crash

At the end of the 20th century, digital communications technologies were going to change the world. Researchers, policy makers and industrialists fetishised the liberating potential of technological change and computer networking (Barney, 2000). Academics envisioned the paradigmatic difference of a digital media future. New media forms would supersede broadcasting (Ellis, 1992; Gilder, 1994; Given, 1998, Steemers, 1997). We were entering a second media age with “an entirely new configuration of communication relations” that would “collapse” the concepts of producer, distributor and consumer (Poster, 1995: 3). We would all be digital, a phenomenon “decentralizing, globalizing, harmonizing and empowering” in its possibilities (Negroponte, 1995: 229). Such techno-romanticism bundled with libertarian values supported rapid media and communications market expansion (Barbrook and Cameron, 1996).

Two terms held particular potency, and more so in association: interactive multimedia. In the early 1990s the term multimedia was linked to an expansion of narrative possibilities, new markets for old media product and the seductive rhetoric of ‘convergence’: industrial mergers and the breaking down of work demarcations. The term interactive conjured up ways to expand and personalise media consumption, and as the decade progressed, access to the lucrative markets of networked personal computer users. During the 1990s PSBs, like other media companies, developed interactive multimedia products and services in response to market and government intelligence.

In Australian, for example, government policy and industry reports signalled CD-ROM, then the World Wide Web, broadband Internet, and interactive television (iTV) as the drivers of a convergent, interactive, multichannel mediascape enabled by increasing bandwidth and improved processing capacity. The Keating Labor government’s Creative Nation cultural policy (Commonwealth of Australia, 1994) promoted CD-ROM production, via the film industry, as its primary multimedia development strategy – a direction supported by industry analysts (Cutler and Company, 1994; Coopers and Lybrand, 1995) until attentions turned to the Internet. By 1995 reports by the Broadband Services Expert Group (BSEG, 1994, 1995), the Australian Science and Technology Council (ASTEC, 1994, 1995a, 1995b) and industry
studies (Cutler and Company 1995, 1996) positioned narrowband Internet as a critical but interim precursor to broadband networks.⁸

But by the end of the decade it was clear to many organisations that new media institutionalisation was neither a smooth, nor, as it turned out, a necessarily lucrative move. Systems – applications, hardware, platforms and networks – were expensive to install and business models proved elusive. The speculative rhetorics driving early multimedia and internet investment overshadowed more empirically grounded concerns about the use of specific technologies, industry development, regulation and policy (O’Regan and Ryan, 2004). Bandwidth replaced spectrum as the limiting factor on channel growth (Owen, 1999). Transformations of established media publishing paradigms were partial and incomplete.

During this period the NASDAQ, the US based electronic share index, was a meter of the global growth in information communications technology markets. A record high on March 10th 2000 was followed by a rapid slide in share prices, dubbed the dot.com crash or tech wreck. Emerging media companies collapsed. Even global corporations like AOL Time Warner, CNN and News Limited downgraded or dissolved their online publishing divisions in its wake (Hu and Mariano, 2001; Kumar, 2001; Poynter Institute, 2001).

In contrast post-crash, and throughout the early 2000s, public service broadcasters like the BBC and ABC continued to expand their new media publishing programs. Both broadcasters boasted critically and popularly successful web publishing services. BBC Online was Europe’s most accessed web service (POST, 2001) and ABC Online remained in the top ten most accessed Australian websites for most of the period under review. Their competitive status was recognised in the proposals floated for ABC Online’s commercialisation and in industry calls for BBC Online to be sold rather than allowing it to dominate the UK’s online market.⁹

⁸ Later the Howard government’s information technology infrastructure/industry development approach (O’Regan and Ryan, 2004) saw more emphasis on telecommunications service provision, with its 1997 Networking the Nation policy promoting equitable broadband and mobile phone services for regional areas.

⁹ In response to these complaints, in February 2001 British Culture secretary Chris Smith announced that the government would investigate the extent to which the BBC was subsidising commercial activities – including online services – using licence-fee funds.
Such digital competitiveness diverged from the normative discourse of PSB crisis (see Etzioni-Halevy, 1987; Skene, 1993; Nash, 1995; Frazer and O’Reilly, 1996; Williams, 1996; Tracey, 1991, 1996, 1998; Dempster, 2000; Barsamian, 2001). Many were mouthing, if not reading aloud, the institution’s last rites. Michael Tracey’s *The Decline and Fall of Public Service Broadcasting* (1998) exemplifies, with millenarian flair, speculation about public service broadcaster’s moral and material dissolution. He portrays a lingering death by neo-liberal economic constraint, burgeoning channel choice and social fragmentation. Here as elsewhere the rise of the market state is always linked to a reciprocal devaluing of concepts such as the public interest or public good, and their institutional expressions (cf. Marquand, 2004).

This research suggests instead that those institutions were slowly re-inventing themselves to adapt to new political and economic conditions. In the ABC’s case this resulted in many new channels or networks, but some uncertainty about their legitimacy as public services.

**The ABC and interactive multimedia**

In 1992 the ABC ran five national radio services: Radio National (spoken word), ABC-FM (fine music), Triple J (youth radio), Local Radio (metropolitan and regional information) and Radio Australia (shortwave overseas). It had one generalist television channel. Within a decade it also operated a New Media Division, a web publishing service, ABC Online, a streaming audio radio service, DIG, a satellite television service, ABC Asia-Pacific, and a multi-channel domestic television service, ABC Kids/Fly TV.

In order to track the intersection of political, economic and social forces that resulted in these changes, I will monitor the growth of interactive multimedia services over a ten-year period. This begins with the first strategic policy appearance of interactive multimedia in 1992 and closes with the introduction of interactive television. The period marks a relevant conjuncture in the development of media industries, as they moved from techno-boosterist to more pragmatic positions on new media publishing:

- a policy transition, as government, broadcasting regulators and players rehearsed their strategies for constructing a converged, multichannel, internetworked environment;
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- a technical transition, from the genesis of the narrowband Internet’s graphical phase to the subsequent pursuit of broadband capacity and services;
- a social and cultural transition in the domestication of interactive multimedia communications technologies; and
- an economic transition, in the elevation of informational value evident in the birth, rise and fall of the NASDAQ.

These moments are narrative threads in the weave of new media political economy. Together they comprise a backdrop of continuous industrial turbulence that magnified the national broadcaster’s sense of external threat.

The ABC’s interactive media services were established despite government antipathy and internal executive disquiet towards that investment. They grew despite a significant decline in the ABC’s real operational funding, and alongside industrial upheaval. Senior executives symbolically bound the expansion of web publishing to the organisation’s future cultural relevance. However this tactic complicated policy interpretations of the ABC’s broadcast-defined structure and purpose. Even as the ABC’s broader digitalisation process moved apace, new media funding remained a source of institutional friction and, occasionally, parliamentary debate.

While digital TV might be considered a charter activity, ABC Online has never been legally enshrined as a significant new government funding commitment, and it remains unclear to what extent it can be regarded as a charter activity (Martin, 2002; Burns, 2003). The ABC’s Charter is set out as part of the Australian Broadcasting Corporation Act 1983 and the 1992 amendments to that Act (see Appendix 1). The ABC is defined as a broadcaster of radio and television programs, but web publishing is not broadcasting.

Broadcasting is described in legislation as the transmission of radio or television programs, via the radiofrequency spectrum, cable, optical fibre, or satellite, from a central point to a mass audience. The web can be used to supply flow programming through streaming technologies but ABC Online is largely a point-to-point pull service, where users request specific material from an ABC server to be sent to them via the open standard protocols and infrastructures of the Internet, to be played at a time and on a device of their choosing. As of September 2000 the regulatory definition of “broadcasting services” excluded “a service that
makes available television programs or radio programs using the Internet, other than a service that delivers television programs or radio programs using the broadcasting services bands” (Commonwealth of Australia, 2000a: 6) Thus the web could be used to deliver audio and video streaming – but if this material was publicly accessible online, it was not classified as broadcasting.

Under the ABC’s enabling laws ABC Online exists as a nebulously defined adjunct to radio and television broadcasting. Legally ABC can pursue any activity “necessary or convenient to be done in connection with the performance of its [broadcast] functions” (Commonwealth of Australia, 1983: online). It can stage public entertainment. It can also publish and distribute any literary material, films and sound recordings related to its programs. So it may publish online in the same way as it runs concerts or distributes DVDs. Its legal advice has been that:

…the Corporation can use the internet as a means of communication to do things other than broadcasting that it can do without the internet but it cannot use the internet more extensively than that. (ABC, 2000a: 7)

The ABC’s Charter then does not deny ABC Online’s existence (Burns, 2003: 190) but obscures it. In 2000 the ABC indicated it would seek a “minor” amendment to the Act to clarify its position, although this has yet to be submitted for parliamentary consideration. Burns argues this is due to fears that under a new Charter review process the powers of the ABC could “come under attack” (2003: 172). In the meantime, the ABC Act has been amended to allow the organisation to multichannel and datacast (an interactive technology subsequently undeveloped), but not to publish online.

So ABC Online has endured not because it is an explicit element of the ABC Act or Charter, but because successive boards and federal governments have not directly restricted its development. Nor did Canberra encourage it significantly during the study period. The ABC failed to secure extra operational funds for new media programs in three successive triennial budget submissions to the federal government between 1992 and 2002. Only two direct

10 The ABC sought to change Part IV (Powers and Duties of the Corporation), Section 27A to include a broad provision to “communicate to the public otherwise than as provided in this Act” (ABC, 2000b: 4), an expansion of its remit that could be interpreted as more than minor.
federal grant streams provided funds for online initiatives. While the state allocated capital funding for digitisation, this did not extend to content development for CD-ROM, online, datacasting or interactive television.

As this thesis will relate, managing directors have begged, borrowed, and cut from other sectors to expand new media ventures. This has meant ongoing disputes about whether the ABC should be involved in such activities, and to what extent. For example, while scholars questioned the abandonment of arts online (Jacka, 2004; Harrison, 2004), the Screen Producers Association of Australia wondered why the ABC was “pouring money into ABC online and digital multichannels if it cannot fulfil key priorities such as drama” (Neill, 2005).

Situating the analysis

In recent years Australian post-structuralist-influenced media scholars have chosen to explore the philosophical roots of PSB turmoil in ways I have found more instructive than the discourse of crisis. Gay Hawkins (1999, 2001a) sees the ABC as a site of contest over cultural values and rhetorics of choice. Maureen Burns (2003) contrasts different images of thinking about the ABC, documenting the productive tensions between its decentralising, pluralist and centralising, universal tendencies. Geoffrey Craig (1999) relates the ABC’s seemingly perpetual upheaval to its embodiment of agonistic democracy, and contests about who it serves. Elizabeth Jacka (2003), also drawing on Chantal Mouffe’s radical political theory, questions defences of PSB that rely uncritically on its centrality to democracy and a unitary public sphere.

None delivers a strong case for the ABC’s maintenance but each suggests a return to thinking about how PSB is not a singular or coherent ideal. Each is concerned with how it constructs citizenship and belonging, and how it deals – or fails to deal – with difference.

11 ABC TV’s production of new Australian drama dropped from 260 hours in 1996-1997 to three hours in 2004-2005 (Media, Entertainment and Arts Alliance, 2006).
Instead of seeing the ABC as an analogue of a particular historical ideal and examining what it does, I ask instead what it was for, and how this has changed. For this reason I was drawn to Michel Foucault’s work on governmentality, the mentality or framework for thinking about such tactics of government (Foucault, 2000a). Particularly in his later work, Foucault was interested in the way tactics of rule had shifted from direct acts of sovereignty and domination, to more dispersed, persuasive and internalised techniques for influencing and regulating the conduct of individuals. While his writing was preliminary and under-theorised, contemporary governmentality studies investigate this immanent exercise of power over conduct, as well as the means of constituting subjects to be governed. In general they seek to contextualise and intentionalise strategies for shaping the “conduct of conduct” (Foucault in Burchell, Gordon and Miller, 1991: 48).

A resort to general principles and historical trends is insufficiently analytical for this purpose. BBC-modelled institutions like the ABC certainly share its aims of shaping and integrating individuals according to the aims of liberal humanism. They may share values like universal access. However each public broadcaster is a unique instrument for achieving the economic and cultural ends relevant to a nation, and must respond in some measure to its shifting political imperatives. The path of digital BBC has been very different to the ABC, not in the least that it established a commercial online service, beeb.com, before reintegrating that content into its public access bbc.co.uk (see Naylor, Driver and Cornford, 2000; Bracken and Balfour, 2004).

To be of contemporary value PSB studies should, as Jacka (2003) argues, pay attention to the specifics of place, policy, market and sectoral interplay. The question is not just whether there is a future for the ABC in, say, the neo-liberal agenda. We must also ask how that agenda is played out in the local communications field, what its relationship is to the global, and to what extent it serves both the objectives of those governing, their strategic partners in governance and their increasingly dispersed, mobile constituents. So in this work I regard PSB as a localised and potentially mutable strategy of government, of which the ABC is one manifestation.
The uses of governmentality

Governmentality studies have been criticised for limiting their interests to the workings of the state, or being indifferent to the power dynamics of state and capital (McGuigan, 2004). Any such tendencies spring from readings of Foucault’s belief that the state was a “composite reality” without the unity, individuality, rigorous functionality nor the reductionist importance given it by Marxism (Foucault, 1991a: 103). Contemporary Foucauldian scholarship regards government as “a set of practices and technologies of governing which operate across distinctions between state and market” (Barry, 2001: 175; and cf. Herbert-Cheshire and Lawrence, 2002). In this the ABC is part of a network of relations.

It is impossible, for example, to regard it as separate from commercial interests. Since its birth commercial media have supplied it with information, poached its staff and its program ideas. More recently they have bought its content and worked with it on digital technology research. Rather than seeing commerce as a bad object, I am interested in how the ABC shapes and is shaped by communications markets, and whether distinctions can be made between the operations of different players in those markets.

Just as the ABC is not (if it ever was) a creature solely of the state, it is not useful to read it as monolithic. Falling TV ratings do not equal a crisis for the entire institution. Its divisional fractures, unwieldy structure and diverse audiences, along with the administrative and creative autonomies given ABC staff, call for more nuanced readings. Hawkins emphasises how the discourse of imminent catastrophe “depends on assumptions of coherence and unity within the organisation, a unity and coherence that needs to be defended, fought for, saved, no matter what” (1997: 12). How then, she asks, do we discuss the ABC “in ways that refuse the pressure simply to defend it and work against notions of a unified centered totality” (p.12)?

It is doubtful that any deep accounts of the ABC fail to represent it as a site of competing ambitions, fractious politicking and divided loyalties (Semmler, 1981; Davis, 1988; Dempster, 2000). There is, however, a tendency to historical causality (see Dixon, 1975; Harding, 1979; Inglis, 1983; Whitehead, 1988), and to assume ABC constituents – employees and audiences – share an understanding of the organisation’s remit and the concept of public service.
A governmental analysis seeks to understand how a range of tactics are produced and linked together to address certain problems of rule. It does not assume a priori coherence. It should adopt a genealogical sensitivity for variable motives and conflicting ideas, noting how they were patched together under effective schemes for institutional change. Genealogy after Foucault (1974, 1980) concerns aims to locate ambiguous, indeterminate moments in history at which we fundamentally structure the conditions of present; the layers of meaning and turns of event that make the now possible. It favours:

…the claims of local discontinuous, disqualified, illegitimate knowledges against the claims of a unitary body of theory which would filter, hierarchise and order them in the name of some true knowledge and arbitrary idea of what constitutes a science and its objects. (Foucault, 1980: 83)

This thesis seeks to detect the shaping of change in the discursive origins of policy and political thought, by juxtaposing critical accounts of change with the celebratory, the personal with the official. It asks how certain configurations of technology come to be privileged as diagrams for managing social relations, over other possible options.

More broadly governmentality also functions as an antidote to narratives of media “driven by the logic of profit and/or ideological domination”, requiring a focus on micro-politics, individual action and the ethics of self (Hawkins, 2001a: 179). I am interested in the extent to which the ABC’s human actors internalise and perpetuate certain organisational discourses, beliefs and ethical standards, and how these cultural paradigms govern their attitudes and their actions concerning new technology, their relations with the creative subjects of an informational society and their ability to adapt or innovate to meet new operational circumstances.

Questions of agency

Governmentality is not an obvious frame for considering questions of individual agency or innovation. Early studies concentrated on individual’s subjection to coercive powers (Honneth, 1994). Just as Terry Eagleton claims Foucauldian subjectivity “would seem just a form of self-incarceration” (1991: 146), Barbara Cruikshank (1999) claims that vehicles for citizen empowerment, such as voluntary associations, are measures of subjection rather than...
autonomy. Flew (2001a) and Goggin and Newell (2005) find the concept of governmentality of little use in analysing policy activism, in that the totalising effects of state-market interaction tend to override any oppositional pressure on regulatory development.

Such accounts usefully delineate the limits of Foucault’s distributed, productive power thesis and correlate with a well-documented tendency in his works towards an omnipresent disciplinary, and essentially dominating, account of power. But while Foucault questions the ideal of ‘free’ will and does not theorise the emergence of resistance per se, he recognises government as a continual field of agonistic politics (Simons, 1995), a site of “minute, individual and autonomous tactics” which may refuse or inflect the visible facts of overall domination (Gordon, 1980: 257). He did promote resistance against totalising subjectivities (Hall, 2004) and “wedded genealogy to a politics of resistance” (Dean, 1994: 137). Nancy Fraser claims that Foucault’s rejection of a normative, humanist autonomy is not necessarily an argument against that concept, but rather a way of alerting us to the need for more “symmetrical, non-hierarchical and hence, reciprocal” power structures for governing discourse (1994: 200).

Like Nikolas Rose (1999) I wish to rehabilitate a more positive expression of governmentality through Foucault’s aesthetic politics. Rose asks first how individuals, through discourses of freedom and autonomy, practice an active, ethical art of living and second, how the pursuits of our own telos, or ultimate moral goal, may result in new ethical and political movements. To extend this thinking I will investigate how the ABC’s pursuit of interactive multimedia related to employees’ conceptions of liberation, asking what ethical paradigms they applied to their technological change activities and what consequences their choices had for the institution’s purpose.

Elizabeth Jacka (1997a) attempts something along these lines in an important but unfinished genealogical study of the ABC. Following Ian Hunter’s (1988) work on pedagogical governmentality, she begins to investigate the embodied performance of ABC Charter principles by key staff including chairpersons and broadcasters. Broadcasters, she proposes,

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12 Foucault’s writings on distributed, productive power (most comprehensively surveyed in James D. Faubion’s (2000) edited volume) have been widely and successfully critiqued (see McNay, 1994: 104-106; Kelly, 1994: 374ff). Despite, this his work remains an important progression in terms of conceiving the non-linear, negotiable character of power relations.

13 From the Greek télos, meaning end or purpose.
act as “ethical exemplars” in the civic and moral training of audiences, by overseeing “the quality and educational efficacy of programming” (1997a: 10). Yet Jacka does not indicate how other kinds of program-making staff – administrative, technical, middle management – are related to this ethical pursuit, nor how they might differ in their appraisal of what is appropriate action in any given situation.

Maureen Burns (2003) also adopts the exemplar-subject formulation to describe the government of audiences as citizens-in-the-making. She uses Deleuze and Guattari (1988) persuasively to suggest ABC Online evolved from a play between molecular (fragmenting, dispersing, unbounded) and molar (stable, delimiting) forces, and is a product of rhizomatic (decentred, pluralist, non-metric) rather than arboreal (centralist, dualist, metric) thought. She associates the latter with managerial thinking but does not directly address the question of why different exemplary individuals might be prone to one or the other tendency.

Scott Lash (2002) provides a clue in his own reconception of the problem of structure and agency in organisations. Organisations, he says, are instances of both. They would not exist without the complementary action of individuals:

…without individualization and its accompanying strategic action and interaction, without the rational choice that individualization presumes, no organisations on the sort of scale we have witnessed would have been possible. (Lash, 2002: 39)

In a reworking of the molar/molecular binary, Lash argues organisations, which are governed by rules and norms, often produce a different form of sociality in reaction to, or as a side effect of, their rigidity. Disorganisations are more flexible associations based on value and affect. They are reflexive, in that they “do not reproduce values, they continually innovate and produce values” (2002: 41). By Lash’s account disorganisations include the networked work arrangements of multimedia production, a proposal I test against the ABC multimedia experience in Chapters 2 and 3.

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14 It is not clear to what extent ‘broadcasters’ is inclusive of all program-making individuals from researchers to executive producers, although it is the umbrella term used in ABC industrial awards. In referring to broadcasters I prefer the term program-maker, which gives credit to the support staff who contribute greatly to production processes. In reference to web production I will use the generic ‘ABC producer’.
There I demonstrate how differing technocultural formations (managerial, information technology and program-makers) associated computers and the Internet with certain values. These then determined their level of interest in or advocacy for multimedia, for web production over other multimedia forms, and for certain computer-assisted mediations of subjectivity and sociality. An understanding of technoculture, a concept I will elaborate in coming chapters, is important to locating how certain manifestations of technology are favoured over others in organisational change.

Disorganisation, as the Deleuzian molar/molecular model would also suggest, is a necessary process of altering institutional order in order for it to adapt to new conditions. In this thesis the disorganisational influences that influence the development of ABC Online and other interactive media arise from inside and outside the ABC; from technate staff, commercial and non-commercial partners and users. Power, in this instance, is not as Foucault’s early work suggested, only discursive and continuous (eg. knowledge from state to individual), but also non-linear and discontinuous (Lash, 2002: xi) – able to emerge unexpectedly from informational sources.

Public broadcasters are then best understood not as stable or fixed institutions but as “technologies of government” (Foucault, 1988: 153–154). These are assemblies of intellectual techniques and practices by which individuals are made known, integrated into the social and governed. Foucault makes it clear that government involves a reinforcing relationship between disciplinary technologies, which discipline the body through surveillance or control, and less dominating “technologies of self”: ways of encouraging self-governance, including the individual’s development of ethical knowledges necessary for mastery of the self and participation in public life (Foucault, 1988; Simons, 1995).

The ABC is less of the former and more of the latter; a particularly liberal mode of subjection. As Ang (1991) documents, PSB does use devices such as charters, policies and ratings to imagine national audiences. It constructs various channels of attractive, ‘quality’ programming which will help inform these audiences or reform their tastes. Television and the radio, with their schedules, formats, promotions and personalities, act as quasi-disciplinary spaces in marshalling these audiences. They regulate audience consumption.
Introduction: Re-reading crisis

From there civic development is, as Burns (2003) suggests, dependent on individual practices of self. No-one is forced to watch or listen to the ABC, and many choose not to. However those who do often present, or are presented, as more moral, responsible citizens than commercial audiences (Hawkins, 1999). The ABC in turn relies on these audiences to model information behaviours that support the continued existence of the institution – an appetite for rigorous political coverage, a distaste for advertising and so on. So public service broadcasting, a technology for creating political and cultural subjects, has always required demonstrations of their reciprocal agency and social reinforcement – perhaps even more so as civic ideals weakened under neo-liberalism.

A ‘technology’ in Foucault’s interpretation is not just an apparatus or structure but, following Heidegger (1977), refers to the knowledge, social context and intent that give technical objects meaning.\(^{15}\) I find Deleuzian progression on that idea useful, where technologies are understood as historically and politically situated, but potentially fluid, assemblages of rhetorics, bodies, practices and apparatuses.\(^{16}\) It allows me to elaborate on Miller and Rose’s (1990) definition of technologies of government. They are evolving means of translating political thought into reality, embodied techniques and devices which instrumentalise diffuse strategies of rule.

The ABC is reliant on a constant reworking of its arrangements to respond to social and political change, and effectively engage with the populations it must influence and activate. It follows a trend that political sociologist Andrew Barry (2001) documents in Western, industrialised societies, where technological change is increasingly essential to political invention, the maintenance of government territories and the formation of the technate citizen.

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\(^{15}\) This is a position adopted in varying formulations by many theorists of technology including Raymond Williams (Mills, 1997). In a sense it returns the meaning from an artefact designed as prosthesis, to the Greek root of the word, \textit{tekhnologia}, meaning systematic treatment.

\(^{16}\) Andrew Barry (2001: 11) uses Deleuze and Guattari’s term \textit{arrangement} (1988: 196), but I prefer their notion of \textit{assemblage}. It carries the additional connotations of indeterminancy and chance, the fluidity of the relationship between elements. It also acknowledges the process of technical becoming, rather than the predetermination of a being ‘as is’.
Locating the gaps

The transition from broadcasting to new media publishing is not a well-traversed narrative. Notwithstanding the ambiguous status of new media in the ABC, in public service broadcasting (PSB) and the wider broadcasting industries context, its histories, production processes, reception and policy framework remain under-researched. It is not for want of dynamism in internet scholarship, with excellent histories (Abbate, 1999; Berners-Lee and Fischetti, 1999; Cailliau and Gillies, 2000) and critical cultural studies (Lovink, 2002; Lovink and Schneider, 2004; Goggin, 2004) revealing the Internet’s diverse forms, social uses and cultures. Yet with some important exceptions (eg. Lister et al, 2003; Flew, 2005) much comprehensive new media research has emanated from the United States where as Barr (1985), and Price (1997) have noted the influence of PSB is weak.17

Only recently have scholars written at length about digital PSB (cf. Lowe and Hujanen, 2003; Born, 2004; Lowe and Jauert, 2005; Lowe and Bardoe, 2007). These accounts tend to elide detailed analysis of new media forms and often focus on changes to the cultural behemoth of television. Maureen Burns (2003) who does consider intersections between the web and broadcasting in her doctoral thesis, more elegantly draws a similar conclusion to my earlier studies (Martin, 1999b, 2002) in recognising ABC Online as a mechanism for incorporating difference within the universalising function of public service media. She studies the first five years of ABC web publishing, but this work considers the ABC’s interactive program more broadly to see how social and economic relations alter, and are altered by, new technologies. Significantly, my work goes further in interrogating whether the ABC has a viable or distinctive role in an age of channel plenty and bandwidth scarcity.

This work uses Lash’s informational theory to contextualise the internal response of a governmental technology to changing social conditions and political objectives. In doing so it acknowledges myopic and instrumental tendencies in governmental research: the tendency to neglect the structural impacts of neo-liberalism and globalisation (Hinkson, 1998), and failure to demonstrate the connection between micro-political strategies and larger power structures (Grossberg in Packer, 2003). Many early studies were concerned with documenting the

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17 Electronic democracy research, although more widely drawn from across the world, arose mainly from case studies of networking in political institutions, NGOs and radical political movements, or experiments in citizen participation (Friedland, 1996; Harcourt, 1999; Meikle, 2002).
influence of expertise or ‘intellectual technologies’ for enhancing knowledge about social and economic processes, including techniques to guide self-actualisation (cf Burchell, Gordon and Miller 1991; Rose 1992; 1996). In doing so they failed to critically theorise the corresponding impact of changing political and social orders or subject formations on coalescing power relations, a recent and important trend (Argent, 2005; Herbert-Cheshire and Lawrence, 2002) which is continued here.

Invoking Foucault in communications research invites a form of philosophical paralysis. It challenges researchers to revisit his celebrated standoff with German sociologist Jürgen Habermas over the nature of ethical discourse and the separation or interdependence of power and critique, the resolution of which is in any case “indeterminate” (Kelly, 1994: 390).18 This thesis will not intercede in those problems but will invoke some of the tensions, such as the possibility for rational communications.

Structure

The work can be divided into two sections, a historiographical analysis of technological adoption, and an examination of the ABC’s role in an informational context, each preceded by a chapter of relevant theoretical reflection.

Chapter 1: *Governing the future* positions the ABC as a form of PSB with a peculiar set of governance concerns and a contradictory rationale, made more difficult by socio-political and economic shifts which cannot be addressed by broadcasting. It discusses the significant factors behind the organisation’s drive to technological change, and locates its capacity for innovation in its exemplary staff and users.

Chapter 2: *Network* is a prehistory of interactive multimedia development in the ABC. While it illustrates that the organisational pursuit of multimedia was grounded in the ABC’s new enterprise rationale, it locates the genesis of web publishing in a contest between the ABC’s technocultures over the ethics of information networking.

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18 As Anderson (2005) reveals, Foucault’s logic is characterised by evasions and contradictions that obscure the foundation of his theory of ethos in the possibility of rational coherence, while Habermas’s dismissive reaction to Foucault’s work undermined his own argument’s intellectual substance.
Chapter 3: *Domain* documents the institutionalisation of interactive multimedia publishing, and the discourses used to sell new media to a resistant organisation. It charts how ABC Online came to dominate interactive multimedia development by symbolising divergent ideas of a future ABC – the organisational convergence, increased productivity and decentralisation desired by Brian Johns for the greater corporation; and the means of democratised knowledge formation imagined by multimedia producers.

The second thesis section then asks whether ABC Online’s mediation of informational relations indicates new governmental functions and contentions for a digital institution. Chapter 4: *The Mutable Object* critiques existing accounts of digital PSB based on the dominance of the television paradigm and their lack of attention to the mutability of digital systems. I describe the ABC as a mutable object, and lay out the conditions of communicative power in interactive media systems, which shape the analysis of the ABC’s evolving role.

Chapter 5: *Zone* analyses ABC Online’s extended spatialisation of a nation, indicating how web producers attempted to address aspects of cultural diversity through localism and communitarianism.

Chapter 6: *Forum* proposes ABC Online as a set of pedagogical strategies for producing both responsive, participatory, reflective citizens and learning communities. It considers the benefits of reciprocity to the ABC system and analyses the reactions against it.

In this light Chapter 7: *Database* re-casts the ABC’s relationship to its publics and the online market through the lens of cultural citizenship and the discourse of information access. I propose a model of analysing public access functions in an online publishing environment, which is applied to the Australian market and to interactive television.

These three chapters concentrate on the ABC’s role as a cultural technology, with a defined set of social objectives. Finally I consider the economic rationale for the ABC acting as a digital public service publisher in emerging media markets, considering whether it has been a digital innovator and in what ways.
Chapter 8: *Incubator* introduces contemporary debates on PSB’s place in an innovations system as a site for the exploration of the ABC’s research and development role in interactive multimedia industry development.

Chapter 9: *It’s Your ABC?* concludes by reviewing the consequences of the ABC’s program of technological change in re-drawing the boundaries of mediated governmentality. It considers the scope of change in the ABC and alternate scenarios for alterations to its role and functions in a competitive, internationalising mediascape.

**Methods**

Media studies have a tradition of disciplinary eclecticism in their methods (Cunningham, 1997; Turner, 1998). While governmentality in the informational society frames the terms of my enquiry, my research articulates media and cultural studies methods such as qualitative interviewing, discourse and comparative policy analysis within a broadly constructivist tradition of examining new technological practices.

Interdisciplinarity and methodological flexibility have been necessary for fresh thinking about the ABC and its ‘frame of governance’ (its complex organisational structure, mission, objectives and accountabilities). My approach was also a necessary analytical response to evolving media forms like the Internet (Jones, 1999) and the convergence of IT, broadcasting and telecommunications technologies. Collins and Murroni (1996) argue this, for example, makes the distinction between media and communications policy no longer serviceable. Such shifts demanded I be aware of relevant research in sociology, political science, and cybernetics. This contributed philosophical insights to what Barry calls the “contemporary interplay between political, technical and social scientific discourse” in governmental fields (Barry, 2001: 5).

Cultural studies theorist Jonathan Sterne sets out useful goals for a qualitative study of new media:

> It engages the dominant discourses about a medium without taking them at face value; it provides innovative descriptive material that allows other scholars to further reconceptualize the medium; it considers the past and present historical
and institutional conjunctures shaping the medium; and finally it considers the politics and future of the medium, without, again, taking available discourses on their own terms. (Sterne, 1999: 268)

When I began this research there was no historical documentation of the ABC’s multimedia development, and only one first-hand account of its purpose (Griffith, 1996). Institutional records were fragmented and kept mainly in personal files. Interview-based research delivered a history from below (Thompson, 1978) of technological adoption. It recovered much of the fine detail not written down in people’s rush to implement change, not deemed relevant to policy or sanitised by political manoeuvring.

The historical account and historiographical reflections in Chapters 2, 3, 5 and 6 rely on the analysis of semi-structured interviews conducted over a period of six years with key players in the ABC, commerce and government, complemented by critical examination of internal policy documents, government information policy, industry and stakeholder analysis and academic studies. I conducted around sixty formal interviews (see Appendix 2), mostly face-to-face, although also by phone and email where distance and time were obstacles. The earliest interviews are “episodic narrative” in form (Flick, 2002: 104–9) as I attempted to correlate developmental chronologies with rationales for the adoption of interactive multimedia technologies. However as the project progressed my overall interview approach was more broadly constructivist, in two respects.

First I inquired how interviewees were implicated in constructing their account of technological and institutional change: the context of the interviewee’s engagement with interactive multimedia, and their personal investment in change strategies. Second I was concerned with how things were being said as with the literal meaning of what was expressed; with the discursive emphasis as with concrete experience or semantic knowledge. I paid particular attention to the use of contentious or elastic terms such as convergence and interactivity.

During the study new media technologies, their forms and uses, and our theoretical understandings of them have evolved significantly. Consequently where interviewees have become long-term employees of the New Media division they were interviewed several times
in order to document any new policy concerns or attitudinal changes to the topics under examination.

The interviews had an ethnographic preoccupation with the cultural context for, and process of, technological change. Ethnographic studies of audiences are common, even orthodox (Ang, 1996) but less conventional in industry or policy research. In a disciplinary survey Graeme Turner critiques the literary/critical turn in media studies for ignoring “the conditions within which the texts were produced: the nature and structure of the media industries and the contexts in which they operate” (1998: online). Accordingly the interviews conducted canvass the ABC’s interactive multimedia infrastructure, content development, policy, production and delivery units. The speed of change in these areas, as new media oversight was realigned within the corporate structure, posed some difficulties for recording source job titles. Appendix 2 locates each interviewee’s original details and any pertinent shifts.

Critical discourse analysis, following Norman Fairclough (1995, 2000, 2003, 2005a, 2005b), allows further examination of how these actors constitute their changing organisational contexts. I do not attempt a full linguistic analysis of each interview or source text. Instead this approach is used strategically to indicate the ways in which certain discourses about technology are interpreted, reproduced and enacted in the implementation of new policies or practices for managing social relations.

Fairclough proposes that where a crisis in the social order occurs, different groups devise strategies to fix the problem, articulated through competing discourses. Where one discourse “achieves hegemony, it is enacted in new ways of acting and interacting, inculcated in new ways of being (forms of identity), materialized in new ‘hardware’ (architecture, machinery, technologies etc)” (2005a: 42). Fairclough’s is a moderate adoption of social constructivism; one that acknowledges the effectiveness of texts without making claims for their hegemonic impact. Texts, he says:

…are points of articulation and tension between two causal forces: social practices and, through their mediation, social structures; and the agency of the social actors who speak, write, compose, read, listen to, interpret them. (Fairclough, 2005b: 919)
In this work I examine a range of texts to probe the effect of key change discourses within the ABC, the new ways of acting and being they inspired, and the impact of any subsequent technological shifts on the purpose of the organisation. Bakhtinian discourse analysis, which is concerned with the contextuality of utterances (Bakhtin, 1981, 1984, 1986; Fairclough, 1992), is invoked to illuminate the conditions of interactive speech.

A subjective shift

The case study is a typical object of inquiry for the qualitative researcher concerned by a central question (Sudweeks and Simoff, 1999: 35). Its methodological approach is by nature interpretivist, one where “the role of the investigator is participatory and personal” (p. 36). However as a former ABC employee, and occasional casual journalist/producer since leaving, my relationship to the organisation has sometimes allowed privileged access to people and documents. Early on I found it hard to establish a critical distance, the uncertainty about my object famously advocated to scientific ethnographers by Bruno Latour (Latour and Woolgar, 1979). This difficulty has been resolved through a gradual disengagement and disenchantment with the ABC over a period of years.

In the early years of this work I was often torn between loyalty to the cultural ethics I mention in later chapters, and my stance as a media researcher. A break from ABC employment between 1999 and 2002 gave me some distance, as did gradual difficulties in gaining access to information. During Jonathon Shier’s reign as managing director my requests for data on comparative regional website use met with guarded comments, then flat refusal. ‘Commercial-in-confidence’ became a stonewalling catchphrase from 2000 onwards. ABC Document Archives generously allowed me to view files from the early 1990s, but were circumspect about copying, citing the ‘30 year rule’ – the section of the 1983 Archive Act defining a period of restricted access to government files. A further stint as a documentary freelancer, working across ABC Radio and Online, illuminated cross-divisional tensions and the practical challenges of convergence.

Eventually I identified as an outsider, although as Lash (2002) would argue there is no outside place from which to critique the transformation of an information society. Critique is informational in its materiality and its cooption into the relentless commodification regimes
of academia: publications, conferences, seminars, and media interviews. It modifies its object of study even as it attempts to analyse it.

There has been a gradual enfolding of my research into the ABC, particularly as copies of my earlier Masters thesis (Martin, 1999b) were left with ABC Online staff in Ultimo, although it is difficult to determine how much my interviews, conversations and publications have subsequently affected production practices or texts. Certainly my writing has been used to argue for the value of its new media program (McDonald, 2001). From this perspective it could be argued that I am a supporter of the ABC. But this would overlook my critiques of the organisation from my earliest days in community broadcasting. Like Hawkins (1994: 38) I have felt occasionally discomfited by open assistance from those whose working lives I am researching, and the sense of obligation to write for, rather than about, that can engender. I could not be considered either a harsh critic or an opponent of public broadcasting, but have deep concerns about its homogenising and bureaucratic inclinations. I am also worried about the ABC’s capacity and willingness to connect with its increasing vocal constituency.

From this standpoint I can deliver the diagnostic Nikolas Rose deems central to the analytics of governmentality. I seek as he suggests:

...an open and critical relation to strategies for governing, attentive to their presuppositions, their assumptions, their exclusions, their naiveties and their knaveries, their regimes of vision and their spots of blindness. (Rose, 1999: 19)

In the first half of this work, investigating why a complex organisation like the ABC might engage in technological change provokes several questions: Why was change necessary? What was the context? What alternatives were possible, and which were discarded? How did the ABC plan for change? What drove its eventual choices? With those enquiries in mind, I will move to the next section of this work, which considers how we can understand the ABC’s need for transformation.
Chapter 1

Governing the future

Today, perhaps, the problem is not so much the governability of society as the governability of the passions of self-identified individual and collectivities: individuals and pluralities shaped not by the citizen-forming devices of church, school and public broadcaster but by commercial consumption regimes and the politics of lifestyle… (Rose, 1999: 46)

In the introduction to this work I suggested that public service broadcasters like the ABC face varying dilemmas in remaining effective tools of government, notably in adjusting to sweeping social and economic change. This chapter shows the ABC has difficulties in communicating with, representing, educating and activating citizens in a competitive mediascape. The rise of neo-liberal politics has figured centrally in crisis narratives but this chapter locates it as only one force driving the ABC’s strategies for governing, whose great influence has been in setting a technologically determinist approach to the organisation’s problem-solving agenda.

There is little doubt that the ABC suffered some setbacks under a neo-liberal rationale. Successive federal governments liberalised broadcast markets and, as production costs rose, reduced the ABC’s direct allocation by 29.5 per cent in real terms between 1985/86 and 2001/02 (ABC, 2001), forcing it to shed assets and staff. The Howard Coalition government also consistently accused the ABC of left-wing bias in its reporting, prompting ongoing inquiries into its editorial mechanisms (Jacka, 2005; McIlveen, 2003; Turner 2005). Re-cast as either dinosaur or provocateur, its complexities often reduced to caricature, the ABC has been pushed to the cultural policy margins. But the organisation has not been dismantled, has expanded its services and in many cases its audiences.
Behind a substantial façade of ideological conflict over the future of the ABC under a neo-liberal rule lie, as Nikolas Rose’s work suggests, broader problems of governance common to many liberal institutions in an informational climate – and one peculiar to Reithian broadcasters. Increasing pluralism and social mobility, alongside diversifying commercial service choice threaten to de-stabilise public service broadcasting’s integrative functions. It may deliver more digital services to attract new audiences, but this only expose the original tension between its task of unifying a nation, and its Reithian aim to educate, improve, and thus mark as superior, its dedicated audiences.

So the ABC’s drive to change is embedded in what Foucault would term a contradictory rationale and exacerbated by the larger forces of informational capital, which stretch and re-organise social relations. These forces have diminished the governmental efficacy of broadcasting for reaching, let alone engaging, Australia’s multicultural, diasporic and increasingly globally mobile citizenry. Contemporary political thought dictates such problems be resolved largely by technical means – and through the creation of new (largely broadcast) services. In contrast I argue that the ABC needs to re-examine its social mechanisms of innovation and to ask whether, in an informational age, its governmental role is best served by extending its broadcast relations.

In this chapter I define what public service broadcasting has been for, as a technique of government, a set of ideas of ideas about public service and cultural pedagogy, and a localised, Australian approach to communications governance through the ABC. I then explore how the ABC’s conditions for operation have altered, with a focus on the way in which macro trends have impacted on the Australian media ecology. Finally I consider why neo-liberalism has focussed on technical solutions to the ABC’s governmental challenges, and how this overlooks crucial social and cultural elements of the organisation’s capacity for technological innovation.

The art of translation...

Surveys of public service broadcasting research conventionally begin with a dissection of what ‘public service’ means. Yet this is hardly a straightforward task as the “conceptual glue” of public service (Holland, 2003: 4) conceals a multiplicity of rationales, remits and structures (Garnham, 1983; Brown, 1996; Collins, 1992). To begin to unpack the ABC’s contemporary
role I will start instead with a governmental analysis, which locates PSBs’ common use in the rule of the nation-state.

While PSB is often cited as a technology of government (Hawkins 1997, 1999, 2001; Jacka, 1997a; Rose, 1999, Burns, 2003) these works say little about broadcasting’s general application to the project of governmentality. According to Foucault, governmentality is a combination of knowledges (savoirs) and strategies for enacting power that are used to regulate and monitor populations in the interests of the nation-state:

…it is possible to suppose that if the state is what it is today, this is so precisely thanks to this governmentality, which is at once internal and external to the state, since it is the tactics of government which make possible the continual definition and redefinition of what is within the competence of the state and what is not, the public versus the private, and so on; thus the state can only be understood in its survival and its limits on the basis of the general tactics of governmentality. (Foucault, 2000a: 221)

Broadcasting makes government mobile and pervasive. It embodies Nikolas Rose’s notion of translation (1999: 47ff), in that it acts to help disseminate programs of thought across territory. These ideas are then discussed and disputed, internalised and acted upon in various ways by autonomous citizens, allowing what Miller and Rose (1990) term government “at a distance”.

Rhetorical devices such as the concept of efficiency or productivity perform this task in the abstract by suggesting new ways to organise and administer workplaces, homes, cultural institutions and the like, to the benefit of both state and market performance. Broadcasting more concretely:

…links the general to the particular, links one place to another, shifts a way of thinking, from a political centre – a cabinet office, a government department – to a multitude of workplaces, hospital wards, classrooms, child guidance centres or homes. Thus national programmes of government can render themselves consonant with the proliferation of procedures for the conduct of conduct at a molecular level. (Rose, 1999: 51)
Along with telecommunications, broadcasting shares the vascular responsibility of
governmentality and the ability to dissolve boundaries between public and private in its
infiltration of the home (Goggin and Newell, 2005).

In the 1920s radio joined railroads, postal services and telegraphs as technical means for
relaying and integrating governmental thought, and forming the nation-state. National
broadcasting had the specific focus of organising people around the latter dualism: the
national, which MacCormick (1982: 249) distinguishes as a “popular consciousness” and
shared cultural traditions, then critical to the development of the state, a system of political
self-determination and rule.

While BBC-modelled institutions were chartered to be independent of the state, the problems
of establishing national coherence and civil society were mutually constituted with their
solution. The ABC, like the BBC and CBC, did not function as a buffer between a dominating
state and a calculating market, but evolved because of and beside those other forms of
government. Rather than a tool of the state it can be regarded as a “cultural technology”
(Bennett, 1995: 23) – implicated in, but not determining of, the ongoing constitution of
cultural knowledge, practices and power.

Ideally national broadcasting establishes the bi-axial “continuity” which Foucault (2000a: 207) suggests connects the practices of individual (self and family) governance with those of
the state. It informs individuals of the scope of the “art of government”: matters which
Foucault typifies as moral, political and, centrally, economic (2000a: 206). The ‘translation’
of such strategies into public action is primarily a discursive process, with dialogue central to
social networks of value transference and persuasion.

Rule ‘at a distance’ becomes possible when each can translate the values of the
others into its own terms, such that they provide norms and standards for their
own ambitions, judgements and conduct.” (Rose, 1999: 50)

Translation involves intricate relationships between heterogeneous networks of actors. It
requires allegiances between those who would rule, their expert advisors, the independent
authorities charged with enacting governmentality and ‘free’ citizens. In earlier work Rose
signals the importance of language to this process. Language enables the composition,
articulation, inscription, and spread of government: “establishing a kind of identity or mutuality between political rationalities and regulatory aspirations” (Miller and Rose, 1990: 6–7). It is also the site for intercultural struggles over the operation of political and cultural hegemony (Phillipson, 1992, 2003).

Translation, used by Michel Serres (1974) to refer to his search for equivalence between different forms of knowledge and cultural practice, is the key communications process in Michel Callon (1999) and Bruno Latour’s (1987, 1993, 1999; Latour and Woolgar, 1979) actor-network theory (ANT). In this work translation is also central to the culture-forming process, where actors negotiate meanings, define their identities, and co-opt each other in the pursuit of individual and collective objectives.

All communications media can be involved in processes of translation, but only national broadcasting is obliged to extend networks across the conceptual terrain of rule. It is an attempt to create the ‘economic’ conditions for political and social stability, whether liberal democracy or totalitarian regime. In Europe, as in Australia, radio was enlisted to cultivate nationalism, distinguish the national identity and evangelise democratic processes during a period of political upheaval (Murdock, 2005; Inglis, 1983). Broadcasting’s immediacy, reach and constancy made real Benedict Anderson’s (1983) imaginary political communities in a more powerful manner than print-capitalism, which he and Jurgen Habermas (1990) cast as the genesis of national consciousness.

Thus a general commitment to translation, to a dialogue of government between national citizens, is the first element of public broadcasting’s universalising political function – and perhaps the only one common to all its forms. It is more difficult to define how broadcasting might perform a ‘public service’ to the citizens of a nation due to the multiple, evolving interpretations of that role.

...and of serving the public.

Trying to unpack the concept of ‘service to the public’ is a Sisyphean task. Scholars and broadcasters often cite principles developed by the British Broadcasting Research Unit, and refined by Michael Tracey in later works (1992, 1998). These stated that public service broadcasting should provide:
universality of access, universality of appeal, provision for minorities, a commitment to education of the public, distance from vested interests, a broadcast structure which encourages competition in good programming rather than for numbers, guidelines that liberate rather than restrict program makers. (Tracey, 1992: 18ff)

Tracey acknowledges the principles are metaphorical, and they can certainly be contested in literal terms. Universal access, for example, has been an “aspirational rather than obligatory” goal for the ABC (Goldsmith et al. 2001). Inglis (1983, 1997), Davis (1988) and Wilson (1997, 1998, 1999) have all drawn attention to its problems in co-ordinating production and service delivery between city and country and across vast distances.

Such lists are also subject to shifts in politics and circumstance. In 1998 following several years of BBC Charter renewal debate Tracey also added “serving the public sphere” to the principles (1998: 28). In 1999 an ABC submission to a national productivity review, assessing possible re-regulation of Australia’s broadcasting ecology, contained two more clauses. First, it stated that it must be publicly accountable – possibly in response to repeated claims of ABC bias. Second, it declared the ABC would rely on “universality of payment”, government allocation rather than subscription (ABC, 1999a) – again possibly a reaction to an atmosphere of increasing commercialism. So rather than explaining PSBs’ contemporary role, such lists of principles do more to hint at the tension between historical objectives and ahistorical, universal ideals – and the continuously changing nature of public service.

Governmental arguments can be similarly essentialist. To avoid equating public service broadcasting with a specific institutional ethic, Syvertsen (2003) proposes it as a form of governance with three features: a set of technical or economic privileges such as spectrum allocation or state-funding to isolate it, to some extent, from market forces; the obligation to fulfil a public remit in return for those privileges; and a control structure, usually founded in the state. Here the unqualified terms are so broad as to apply to any regulated media service.

1 Adaptations appear, for example, in Bahrendt, 1995; ABC, 1999b; Mendel, 2000 and BBC, 2004.
Earlier Syvertsen (1999) had broken ideations of PSB into categories: as a service to the public sphere, as a public utility,\(^2\) and finally as a service to individual consumers who comprise the public. Yet the economic distinctions are highly contestable, as I will indicate shortly, and Habermas’s public sphere (1989, 1990, 1992), is a metaphor for democratic process that fails to furnish public broadcasters with a distinct role.\(^3\)

Despite much work emphasising public service broadcasters’ contributions to communal interaction and debate (Garnham, 1990, 1992; Keane, 1991; Poole, 1989; Scannell, 1989; Osborne and Lewis, 1995) there is good evidence that commercial media perform an equally significant public sphere role (see McKee, 2005). Habermas acknowledged this, just as he later recognised the existence of ancillary or competing public spheres (1992). Recent Australian studies suggest the existence of many distinct, diasporic sphericules mediated through video, community radio and internetworking (Cunningham, 2001; Forde, Foxwell and Meadows, 2002). These findings support Andrew Barry’s proposition that there is no “ideal socio-technical formation” of the public sphere (2001: 10), and the possibility that public broadcaster’s have no special claim on its existence.

In this research public broadcasting’s democratic role is better articulated within the liberal European rights tradition, and expressed in terms of cultural citizenship (Murdock 1999a, 1999b, 2004, 2005; Stevenson, 1997, 1999, 2000; Couldry, 2001). Graham Murdock (1999a), expanding T.H. Marshall’s (1950) taxonomy of citizenship, proposed the exercise of information and cultural rights as critical to full participation in social and political life. In later work he has advocated the use of public service online media to extend citizens’ greater access to political participation and deliberation (Murdock, 2004, 2005, 2007). The problem here is how does PSB activate citizens? Richard Collins (2006: 21) rightly argues that rights-based citizenship studies often fail to explicate an “active, deciding dimension”, that would hold media power to account, or indicate a sharing of political decision-making and duties.

\(^2\) In economic terms a public service may be a ‘public good’, a non-rivalrous, non-exclusive object: something that everyone in society can use without interfering with others’ consumption of it, and which once produced, is difficult to deliver exclusively.

\(^3\) I also recognise broadcasting’s failure to simulate the terms of rational discourse (Collins, 1992; Du Gay, 1997), disputes over the gendered or otherwise exclusive conception of the public sphere (Fraser, 1990) and the disintegration of consensus in pluralised spheres (O’Malley, 2001).
The concept of activating citizenship through symbolic production is more explicit in civic republicanism traditions, where media are regarded as means “by which subjects are constituted as members of a national community” (Nolan and Radywyl, 2004: 46). Collins is wrong to cite this republican tradition as absent from media studies – it is strongly present in discussion of community or citizens’ media (Rennie, 2002; Forde, Foxwell, Meadows, 2002) and epitomized in the 1970s push for access to media channels and participation in content production.

The possibility of active citizenship is also central to Ernst Laclau and Chantal Mouffe’s radical democracy project (Laclau and Mouffe, 1985; Mouffe, 1985) and, as I have mentioned, in post-Foucauldian scholarship. In each case the concern is how the experience of democracy must involve recognition of pluralism, and its personal articulation – a theme I develop in Chapter 7 by suggesting interactive media as a strategy for negotiating the construction and function of difference.

Citizenship is predictably secondary to the principle of choice which drives recent economic justifications for public broadcasting (see Office of Communications, 2004a, Armstrong and Weeds, 2005, Collins, 2006) — even though the classic market failure case appears to fail in a multichannel, digital broadcasting environment (Armstrong and Weeds, 2005). Yet these analyses too are based on historic principles: that television broadcasting is the natural market for public service media analysis, that industry controls the supply of programming and that the public are citizens and consumers, rather than knowledge producers. None of these premises necessarily applies in a digital media context, and the policy implications have hardly been explored.

This brings me to the value of historicism and contextualisation. I am interested in how history, politics and social circumstance manifest in particular variations of governmental tactics, and how governmentality itself is subject to revision as a result of changing social conditions and power relations. For example, the purpose of Reithian public service broadcasting is complicated by its genesis in a mix of political and cultural theory – and importantly, by what Ian Hunter (1988) might call an aesthetico-ethical discipline that leaves it unable to reconcile its pedagogical mission.
A contradictory rationale

In 1930s Britain, as in its colony Australia, part of the impetus for national broadcasting was a belief in radio’s power to influence political thought and social democratic concerns about the self-interest of organised capital in exercising that power (Scannell and Cardiff, 1991; Inglis, 1997). Spectrum scarcity became a rationale for government regulation of airwaves within national bounds. The BBC, a model for many broadcasters including the ABC, was to be state regulated and run, and universally accessible with the cost uniformly levied over the population. But this ‘public service’ function rapidly extended to ethical concerns.

Proponents of national broadcasting had found support for their interventionist argument in an odd alignment of left and right politics: the Frankfurt school critique of the capitalist ‘culture industry’ and its commodification of art (Horkheimer and Adorno, 1972; Adorno, 1991), which entrenched an earlier conservative distaste for popular, commercial media typified by the work of literary pedagogue Matthew Arnold (McKee, 2005). For Arnold the study of culture – or as he called it, the “disinterested endeavour after man's perfection” (1882: online) – could improve knowledge, taste and manners, leading to a better society in which rationality and harmony would prevail. Following this tradition Sir John Reith made social purpose and ethical responsibility distinctive features of the BBC’s remit and thus of the Reithian broadcasters which adopted its approach. As well as communicating what the nation was and how individuals might best belong to it, Reith argued the BBC would also instigate societal reform through moral and cultural education (Ang, 1991; Cave 1996; Hutchinson, 1999).

Public service broadcasting was long afterwards defended as a counter to the potentially dominating, exploitative and individualising influence of commerce and to the ‘degrading’ effects of commercialism on culture (see Tracey, 1998; Herman and McChesney, 1997). The terms of that state vs capital debate also reinforced a moralistic citizen/consumer dualism, first substantially developed by Jean-Jacques Rousseau, where political activity is regarded as a higher, more responsible pursuit than consumption. Like Hunter’s (1988) literary

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4 In Australia it was born of the Scullin Labor government’s Depression-era distrust of market forces and bipartisan concerns about the power of press barons. However the United Australia Party, which gazetted the 1932 ABC Commission Act, broke from the more socialist Labor Party and its regulation of broadcasting was more social democrat in style, with a dual system of state-funded and commercial operators.

5 In *The Social Contract* (1975), Rousseau, after the Aristotelian tradition, argued that economic activity distracted the citizen from public life.
pedagogy, public service broadcasting promised social improvement through attention to an ethical regime of information consumption, and normative knowledge development.

For this reason ‘quality’ became central to public service broadcasting’s moral authority, or what Foucault (1980: 133) would have called its “regime of truth”. Quality was defined in terms of its opposition to popular and vulgar; propped up by further aspirational affirmatives like standards, excellence and range (Tracey, 1998: 25). Broadcasters like the ABC that adopted this pedagogical program also adopted a contradictory political rationale. They simultaneously sought to unify a nation, and to differentiate a better, more culturally refined and ethical class of citizens.

The antagonism between these two objectives has been the catalyst for difficult debates about whether the ABC’s pursuit of popularity and ratings will lower the standards of the institution. Gay Hawkins (1999: 176–177) describes the quality paradigm as a “reductive binarism between pleasure and value”, where the “complex, mature and civilised” activity of watching PSB assumes a greater ethical value than watching escapist, childish commercial television. She invokes John Frow’s (1995) reasoned opposition to the essentialism and inaccuracy of the high (PSB)/low (commercial) culture paradigm. Such a binary also became less sustainable in the 1980s, with the ABC’s corporatisation, as ratings and entertainment gained a greater importance in program design and scheduling.6

Finally Australia’s ongoing social diversification has put paid to any easy definitions of national or quality culture. Gay Hawkins (1997, 1999, 2001a) suggests the ABC’s greatest failure as a pedagogic strategy in a multicultural society is its inability to value difference, and to provide multiple and inclusive meanings for ‘quality’. If anything the Australian state’s sanction of specialist community broadcasting from the 1970s, and its creation in 1984 of the multicultural Special Broadcasting Service, have emphasised and exacerbated the ABC’s difficulties, rather than resolved them. Their eclectic offerings highlight the ABC’s homogeneity, in particularly the “relentless Englishness” (Hawkins: 1997: 14) of its analogue television service.

6 Where states dispersed PSB privileges to commercial broadcasters, as in the UK, Paddy Scannell (1989) deemed it important to distinguish between public service as a responsibility delegated by the state and the manner in which broadcasters interpret and discharge that responsibility.
For this reason any debates about the future of the ABC must consider the resolution of its pedagogical contradiction, and also return to the institution’s fundamental role – that of fostering translation between centre and peripheries – to consider how that aim might be re-interpreted in light of social and economic changes. This cannot be done simply on principle, but needs evaluation within its specific media ecology.

**Governing Australia**

We could understand the ABC’s dilemma about how best to service its public as characteristic of liberal governmental institutions. These act to influence the conduct of populations as collectives by suggesting how individuals can decide to lead normal, rational or civilised lives (Hunter, 1988; Rose, 1999). In liberal societies Rose writes, institutions like public broadcasting govern “through freedom” – by encouraging self-responsibility over the maintenance of social conduct.

…the civilising message of the public service broadcasting services was both universalising – it was addressed to everyone – and individualizing – it addressed each person as an individual in his or her own home, in relation to his or her own problems, disseminating advice and guidance on domestic duties and household management, child rearing and motherhood – playing its role in installing little routines of social citizenship and civility into each ‘private family’, implanting ‘social’ obligations into the soul of each free citizen. (Rose, 1999: 82–83)

But while public broadcasters have shared this tactic the historical, political and social context for its exercise has varied greatly. The BBC, for example, was the universalising voice of a pre-welfare-state British social democracy and new liberalism’s individualising, socially educative tool (Rose, 1999). After the Second World War however, public service broadcasting became the conscience of the rogue state, a re-constructive moral and cultural strategy imposed by the Allied forces first on the post-war populations of Germany and Japan (Tracey, 1998).

In Australia, where the tyranny of distance has been a central political concern (Blainey, 1966), I argue that the ABC’s priority has been in maintaining the abstract space of government, that is, the connection between the geographic and the conceptual territory of
rule. It certainly appears that it was intended as an economic, as much as a culturally reformist, instrument. The gradual nationalisation of Australia’s ‘A’ class radio stations in the late 1920s was in part a solution to a failing license system, slow market uptake of receivers and inadequate rural radio services. Armstrong (1982) and Inglis (1983) document special pressure for the nationalisation coming from rural constituents who wanted access to information on agricultural markets and national affairs. The ABC’s initial role was to establish the communicative conditions in which both political participation and the market could flourish.

Although Foucault argues coherently that the exercise of spatial power is first determined through existing social relations (Foucault, 1991b), I side with Andrew Barry in recognising that a “unified zone of communication” is a technological “precondition” for both efficient national markets and a public sphere in liberal societies (2001: 48). Australia’s markets and civil society mechanisms existed prior to the ABC, but in a scattered, parochial way. Broadcast networks extended the scope, integration and intensity of their operations (Osborne and Lewis, 1995). So the ABC reinforced the boundaries of national territory and later, in the case of Radio Australia, projected political ambitions (Hodge, 1997).

At the same time the ABC was never accorded the monopoly status of Western European PSBs because Australian politicians were more concerned with national coherence and economic growth than moral instruction or cultural uplift (Davis, 1988). They were persuaded that a durable radio industry would have to have a competitive base (Given, 2003). The state was to simply step in to provide a service where commerce feared to tread. In 1936, for example, the ABC offered a national news service when all other broadcast news distribution was local (Long and Smith, 1992).

Competition ensured the ABC had a lessened capacity to define cultural standards or social norms. Early ABC radio developed a loyal following especially in country areas but its earnest mimicry of BBC ‘quality’ programming was never as popular as commercial programming (Inglis, 1983: 5 and 77). Until the late 1990s the ABC’s generalist television service attracted an average of 10–15 per cent share of available audiences, less than any of the commercial networks, although its metropolitan radio services have been more popular. It
has even been argued that a Reithian program was only sanctioned by the 1983 Charter mandate to provide comprehensive and specialist programming and to promote the arts.⁷

So it is critical for this analysis to understand what, if any, contemporary economic role the ABC might have in a transnational, intensified mediascape. This is not to say that I find its cultural role unimportant. To the contrary, it has had three relevant functions in maintaining the lived, cultural space of the nation, ethically improving its citizens and promoting active citizenship practices. However where some governmental accounts of the ABC have been concerned with unpacking the operation of the historic Reithian legacy (Jacka, 1997a; Burns, 2003) I am more interested in how the ABC’s contemporary pedagogy and its mediation of citizenship might reflect shifts in political rationale and changes to governmentality in an informational setting.

For a start I will query a tendency in media scholarship to accord public service broadcasting with a singular and fixed pedagogical approach – a patrician benevolence, which Tracey likens to the offerings of the priest to a congregation (1998: 49), or an authoritarian paternalism (Hawkins, 2001a: 185). A disciplinary model may not be the only one for analysis. McKee (2002b) portrays the ABC children’s television show Play School as a site for adult amusement and playful sexual suggestion. Participatory broadcast formats like radio talkback and video self-representation can operate as forms of negotiated political education and cultural education (Winocur, 2003; Carpentier, 2003).

There is little detailed analysis of the ABC’s pedagogy, outside preliminary accounts of its orientation to Reithian principles. For this reason I think it necessary to consider how a directive (professional broadcast) pedagogy is at odds with the contemporary trend toward the democratisation of knowledge production and expertise well charted in sociological research (Gibbons, 1994; Heelas, Morris and Lash 1996; Nowotny, Scott, and Gibbons, 2001; Nowotny, 2003), encouraged through social constructivist educational practice. Over several decades liberal educators have adopted various forms of constructivism, which recognise the value of individual experience, the impact of social contexts on learning and the collaborative nature of knowledge construction (Vygotsky, 1978; von Glasersfeld, 1995; Lave and Wenger,

⁷ See Hansard (1983a) comments by Milton, member for La Trobe.
1991; Wenger, 1999). It is unclear however whether such approaches have impacted the ABC’s educational strategy or its design of new services.

A constructivist orientation would appear to acknowledge and foster the active subjectivities demanded by contemporary political rationales. It would appeal to the “entrepreneurial self” of advanced liberalism (Rose, 1999: 140–142), the contemporary subject which aspires to autonomy, responsibility, and self-determined identity through choice (Hawkins, 2001a). It would also seem to be supportive of the development of the informational subject, after Lash’s analysis. This informational ‘I’, according to Lash, is more than a self-enclosed producer/representer, or an open receiver and chooser, of knowledge. The informational self is shaped through networked interaction, dialogic presentation and “a political semiotics of ‘sociality’” (2002: 80). Informational individualism is critically determined through cultivation (or rejection) of mediated associations, and is bound to others not by an allegiance to institutions or procedural norms but by the consumption and production of shared cultural values. Thus an analysis of the ABC’s ethical interface with such subjects, its evolving educational and citizenship strategies, is essential to understanding its future capacity for governing.

Government, as I have mentioned, involves not only the exercise of power over subjects, but their own development of an ethics of self, and investment in the art of living. Foucault described reading and writing as important elements of an individual’s ethical training and the development of self-awareness. Writing was most important as a tool of meditation, reflection and labour in turning thought into discursive reality:

> Writing constitutes an essential stage in the process to which the whole askēsis leads, namely, the fashioning of accepted discourses, recognized as true, into rational principles of action. As an element of self-training writing has to use an expression that one finds in Plutarch, an ethopoietic function: it is an agent of the transformation of truth into êthos. (Foucault 1997a: 209)

Of the self-writing practices Foucault placed most weight on the effects of correspondence, through which one learns, teaches and may be taught by the addressee. Broadcasting invites reading practices. Networked multimedia may also invite writing and reciprocal communication through email to dialogic mechanisms like online forums or weblogs (blogs).
What this suggests is that interactive, or more specifically participatory and dialogic media, are likely to contribute to a citizen’s ethical development in ways not offered by television or radio.

Until the late 1990s the ABC’s broadcast services offered limited opportunities for audience participation and few examples of dialogue between audience members. The organisation was more successful at intracultural, integrative translation than in fostering communication between Australia’s many ethnic and regional cultural groups. It struggled to identify which public/s it should serve: balancing the need to be comprehensive against the service of audience diversity (Davis, 1988, Long and Smith, 1992; Craik and Davis, 1995; Brown and Althaus, 1996, Mansfield, 1997a) and fought criticisms of homogenous and marginalising programming (Molnar, 1997; Hawkins, 1997, 1999).

Burns (2003) talks of ABC Online as a governmental technology that offers users both unity (with the ABC) and multiplicity of identity (through choice) – a proposal I wish to probe further in terms of how interactive multimedia construct subjectivity, how users might be able to express their identities and how they engage with others in that process. It is important to note, however, that while I regard ABC Online as a device for encouraging the performance, recognition and discussion of difference, I will not attempt to address in detail the politics or challenges of intercultural translation in an era of globalisation (Cronin, 2003) a larger project than can be done justice here.

The coming chapters of this thesis set out a history of how ABC Online became the most successful of the new media technologies used by the ABC to adapt to neo-liberal governmentality and the socio-economic shifts accompanying the growth of informational capital. The second half of the work considers how ABC Online has been used to rework the production of national space (Chapter 5), citizens (Chapters 6 and 7), and communication markets (Chapter 8).

ABC Online is a critical development because in an informational society, with its multiplying and intensifying symbolic flows, neither the broadcasting technology nor its representational practices are flexible enough tools of media governance. Broadcasting can only partially respond to the expansion of national concerns into international spheres, or the rapidly pluralising and dispersing national populations that result from the processes of
globalisation. Some elaboration of this proposition provides a background to the ABC’s search for new technologies of translation that better serve its communications needs.

Re-spatialising the nation

Earlier I indicated that the Australian nation was mutually constituted with and through the ABC. From 1986 satellite broadcasting enabled the ABC’s goal of universal national, and later, S.E. Asian and Pacific coverage. However Aussat, the domestic satellite also enabled the national ‘equalisation’ of commercial television markets, through the aggregation of regional service areas into larger licence areas. Commercial networks could claim, through programming reach if not ownership structure or local coverage, something of the ABC’s territorial responsibility (O’Regan, 1993). This in turn diminished its political importance.

Studies of its changed spatiality have focussed on the development of broadcast services (Wilson, 1997, 1998, 1999) or on the move of Radio Australia online (Burns, 2003). I will extend the comparative work I co-authored on radio and online spaces (Martin and Wilson, 2002) to consider how ABC Online re-mapped the ABC’s local and national space onto a global mediascape, and how this move was significant for the institution’s mediation of national culture. Here it is useful to redefine the notion of media globalisation as institutional – involving global media events, worldwide content trades, the growth of global media firms and global service delivery (Cunningham and Jacka, 1996) – to include transnational online communities and the global circulation of user generated content.

Globalisation studies broadly agree that from the 1980s the scale and scope of global exchanges (material and symbolic), ratified through transnational trade agreements and reinforced through internetworking, fundamentally altered the territorial organisation of political-economics and the dimensions of social relations. In the mid 1990s PSB crisis narratives were fuelled by debates about media globalisation and how it might destabilise national cultural, legal, structural or spatial coherence (Appadurai, 1996; Du Gay, 1997; Hamelink, 1995, 1997, Herman and McChesney, 1997, Morley and Robins, 1995). However as it is now clear that nations remain the strongest structural actors (Van Dijk, 1999) and that globalisation simply complicates political processes (see Held, 2003), I am interested in the way the ABC’s broadcast networks have been supplemented by other forms of spatial governance.
For example, I consider how the ABC has used online publishing to exercise its duty of translation to an increasingly dispersed population. As Lash indicates global outsourcing has led to a “stretching” of productive relations, and a simultaneous intensification and discontinuity of communicative relations (2002: 207). As Australian citizens, via their transnational transactions, are increasingly mobile and diasporic, arguably the ABC’s institutional challenge is to re-territorialise them – that is, to establish effective new mediations between society and state (see Bach and Solomon, 2006). It must pursue new strategies for building what Lash refers to as “culture at a distance” (2002: 15).

Some processes of global translation are increasingly beyond the capacity of broadcasting. Lowe and Hujanen (2003) are correct in maintaining that broadcasting it still the most affectively powerful medium of translation. However geographers working with governmentality theory (Allen, 2003; Argent 2005) suggest that translation may fail, even where there are robust originating forces, for two reasons. The first relates to the effective scalability of communicative networks, and the second to the significance of “proximity, co-presence and reach” (Argent, 2005: 32) for compliance with governmental aims. The more distant the authorities and experts, suggest Neil Argent, the less impact their message may carry on the periphery – especially when there is a dissonance between program and everyday experience.

This means one major problem of global translation, after sociologist Anthony Giddens’s (1984) structuration thesis, is not simply distance, but connectedness and proximity. Giddens work indicates that government requires techniques of communicative reciprocity, such as representative citizenship, to address time-space distanciation. So where mobile cultural associations and exchanges threaten the stability of institutions such as the nation-state, the state in turn requires approaches to translation that extend its reciprocity. It may attempt to be both intracultural, that is, operating within the dominant national paradigm or majority groups and intercultural, operating between diverse self-identified cultural groups and individuals. Chapter 5, which compares strategies of translation in broadcast and online spaces, indicates that effective media governance of space is increasingly about ensuring ubiquity and reciprocity of communications, especially through dialogic interaction.

In considering the recreation of the space of government for a globalising Western society, I am particularly concerned with the profile of the local and the particular. Scott Lash follows
Castells in proposing that social inequality takes on a spatial form in an internetworked society, and “may be a question less of location in production than location in space” (Lash, 2002: 28). He describes economically marginalised locations or “dead zones” of people either excluded from informational flows, or “passed over” and “threatened by” the emergent economic order. Also like Castells (1996) he seems to argue that when power and function are organised in the space of flows they can alter the meanings, experiences and dynamics of lived places – implying that disconnection from the network is related to economic and social decline/stasis (although this is assumed rather than demonstrated). In examining the path of the ABC’s regional online developments, I will argue that the state of being disconnected must be seen in a historical context, and that connectedness in a globalising world is not only a structural problem, but a question of whether users are able to experience both proximity with others and communicative reciprocity.

As globalisation makes national boundaries more porous, throwing up new regional interdependences (Sinclair, Jacka and Cunningham, 1996) and making regulatory practices like local content quotas less enforceable (Syvertsen 2003), I have also found it important to examine how alliances between national and overseas players impact on the ABC’s role in Australian content production and in providing access to the cultural resources for informed, inclusive citizenship. To some extent that work has already been done, through cultural policy-oriented studies of converged television (Goldsmith et al. 2001), broadband media (Jacka, 2001), and creative digital industries (Higgs and Kennedy, 2003) environments. By way of contrast, later in the thesis I use a content analysis of several web services to consider how Australians might experience differential access to informational networks and what this means for state intervention in online markets.

So my spatial inquiry will critically examine the politics of online representation. As such it is inextricably linked to an investigation of social pluralisation, which globalisation accelerates and which also threatens to unravel the unifying mission of public broadcasting.

**Governing Babel**

Even in relatively homogenous modern societies translation would be fraught with personal, internalised and lived differences. The maintenance of government in general, and national circuits of translation specifically, becomes more difficult in multicultural, liberal societies
and again in a global information society. For example in cultural studies and political theory plurality and difference have been defined as central problems for an institutional rationale of national unity (Bhabha, 1994; Vincent 2002; Fraser, 2003). Graham Murdock (1999a, 2005) indicates that the growth of identity politics and a concurrent strengthening of post-colonial critique have been characterised by struggles over representation and participation in public affairs.

Attempts to institutionalise plurality through narrowcasting, like the South African Broadcasting Corporation’s diverse language services (Teer-Tomaselli, 1998), the Dutch pillar system (Bardoel, 2003) and Australia’s SBS are dogged by the spectre of the contradictory rationale: the institutional inability to address all the concerns of their multicultural societies and to bridge divides of understanding between cultural groups. There are never enough channels, or enough programming for specific groups, and only constant concern about how resources will be split to service plurality and debates about fragmenting publics.

So the failure of the more monocultural ABC, and what we might call the representational culture of public service broadcasting, is that it has tended to diminish expression of diversity in seeking out instances of commonality and unity. It shares this problem with representative democracy, which as Slavoj _i_ek points out, cannot but repress difference in its values and truths:

\[\ldots \text{democracy is never simply representative in the sense of adequately representing (expressing) a preexisting set of interests, opinions and so forth since these interests and opinions are only constituted through such representation. In other words democratic articulation of an interest is always minimally performative: through their democratic representatives people establish what their interests and opinions are. (}_i_ek, 2004: 197)\]

Using _i_ek’s logic, which restates the opportunity for hegemonic influence, it is possible to replace the term democracy with broadcasting in order to explore its representational limitations.
For decades political economic and cultural studies have exposed structural and discursive constraints on representing diversity through television and radio. Gramscian and Foucauldian analyses established that media workers only represent the polity through their ideological and/or, institutionalised productive lenses. Active audience research (e.g. Morley, 1992, 1993; Livingstone and Lunt, 1994; Clarke, 2000) explored how much viewers and listeners could escape the determining and/or exclusive meanings of broadcast programming in their textual interactions.

In recent decades broadcasting has increasingly adopted participatory formats in order to coopt the dynamism of audience self-expression and interaction, but it remains a more bounded communications system than the Internet. Broadcasting’s information architecture is more centralised and hierarchical affording the audience members less purposive control over information than geodesic, decentralised computer networks (Spurgeon, 1997). And despite participatory windows like talkback, broadcasting offers limited audience empowerment due to the controlling force of the host and producer (Barnard, 2000; O’Sullivan, 2003). Their gatekeeping practices ensure the supremacy of “phatic” communication (Crisell, 1994: 189), social chat engineered to give a “perception of a relationship” that is nearly always station initiated and entertainment oriented rather than politically motivated (Barnard, 2000: 158ff).

In these terms interactive multimedia, where they enable audience expression, interchange, textual modification and redistribution, are ideally more ‘performative’ media than broadcast. That is, they may enable users, through writing and dialogue, to act out identity – either in line with existing social discourses, as Judith Butler proposes (1990, 1993), or by exposing/parodying/resisting those determined positions (Stanford Friedman, 2002). Whether users take up this opportunity depends on individuals’ capacity to present themselves textually within institutional constraints. It also depends on their willingness to invite examination of their self-writing and to engage with others in a mutual dialogue of learning.

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8 See accounts of journalism as a cultural practice (Meadows, 2001), Ien Ang’s (1991) exposure of the apparatus for constructing and maintaining audiences and Andrew Tolson on journalists’ use of the ‘representative individuals’ to stand in for the interests, opinions and experiences of broad categories of populace (Tolson, 1990).
The case that I will develop in coming chapters is that the ABC’s future lies in governing mediatory processes like open dialogues on social identity, rather than dictating more complete arrays of balkanised cultural value through more and more channels of difference. The latter approach should be seen as natural strategic consequence of a neo-liberal rationale of choice, and thus as policy up for scrutiny in light of local political conditions.

Revisiting the Neo-liberal Rationale

According to Nikolas Rose and Peter Miller, any forms of governance can be analysed in terms of their political rationalities:

…the changing discursive fields within which the exercise of power is conceptualized, the moral justifications for particular ways of exercising power by diverse authorities, notions of appropriate forms, objects and limits of politics and conceptions of the proper distribution of such tasks, among secular, spiritual, military and familial sectors. (Rose and Miller 1992: 175)

Crisis scholars have carefully documented the negative impact of neo-classical economic policies on public service broadcasting. They paint a picture of fatal antagonism between neo-liberalism and ‘collectivist’ interventions (Hutchison, 1999), a “cultural’ or civic model” and an “economic’ or circus model” (Tracey, 1998: 11). In practice neo-liberalism’s interface with national broadcasting is more complex and less determined.

The term neo-liberalism was coined during the 1960s to denote a renaissance of classical liberal economic ideas. Neo-liberal economists, notably Freidrich von Hayek and his Austrian school, advocated the reduction of positive national interventions in market operations and the free global movement of capital. According to Colin Gordon (1991) Foucault later distinguished between the German, or Ordoliberalen model of neo-liberalism, with its focus on legal interventions, and that of the non-interventionist Chicago school, which socio-economist Michael Pusey dubs the “Anglo-American libertarian” version, noting its influence on Australian politics (2003: 9).⁹

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⁹ In the European Union, for example, PSB is considered an exception to “normal” market operations (Lowe and Hujanen, 2003: 15)
Under the latter schema the field of economics gradually assumes the study of all human conduct, and becomes the determining factor of all governmentality. Individual life, for example, viewed as a continuous work of self-assessment and enterprise (Gordon, 1991). Questions of information access or cultural enlightenment ideally become the responsibility of these entrepreneurial individuals, enabling state liberalisation and privatisation of media markets.

In practise though neo-liberalism is tempered by political opportunism, and also by morality through its association with neo-conservatism (Larner, 2004). While liberal philosopher John Rawls asserted that the state has no right to determine a particular conception of the good life (1971), conservative neo-liberal governments often take a prescriptive stance on cultural matters such as the definition of marriage or regulation of sexually explicit texts.\(^\text{10}\) It is such interventions in the otherwise ‘natural’ autonomy of citizens and civil society that lead Rose to describe the tactics of Margaret Thatcher’s British government as “contingent lash ups of thought and action” (1999: 27) rather than philosophically coherent.\(^\text{11}\) Certainly while Hayek saw society as the crucible of morality, Thatcher was famously ambivalent about its operation. So I join a broader scholarly resistance, from diverse fields including political economics (Larner, 2000, 2004) and geography (Argent, 2005), to the notion of a hegemonic, schismless neo-liberal force.

Two examples show how pragmatism and expediency have over-ridden ideology in Australian media policy. First, Coalition digital TV policies have protected the market share of existing commercial and state networks rather than supporting further competition, ostensibly to ensure market stability but more likely to maintain the support of powerful media owners. Second, immediately following extensive cuts to ABC allocations in the mid 1990s, Australia’s federal government then strategically funded the extension of ABC local radio and South East Asian television networks, where these grants furthered its political ambitions (Martin, 2002).

\(^{10}\) See the Howard government’s 1999 attempt to control web pornography by amending the national Broadcasting Services Act to regulate the provision of ‘prohibited content’ online (Coroneos, 2001).

\(^{11}\) Rose suggests markets, civil society and citizens are the ‘natural’ spheres of self-organisation outside direct liberal rule.
The latter example indicates a drive to influence and control PSB rather than dismantle it (although the latter option is not an antithetical move). It suggests neo-liberals can find sense in public broadcasting under certain terms. It also indicates the need to chart more critically the transformative scope of neo-liberal agendas on the operation of communicative power structures and their application to the space of government.

In Australia, the ABC first felt a withdrawal of government subsidy in the late 1970s under the Fraser government and a climate of “strict monetarism” (Barr, 1985: 104). Public service reforms during the 1980s, which aligned the ABC with other state business enterprises, increased the pressure on it to be both more efficient and financially accountable to government. It adopted a range of financial reforms including accrual accounting and user-pays budgets, increased contract employment, outsourced production and paid growing attention to commercial imperatives such as ratings (Frazer and O’Reilly, 1996). The resulting waves of union unrest, budget cuts and public outcry suggested an organisation in decline (Dempster, 2000).

Yet the neo-liberal push for public broadcasters to assume an “enterprise culture” (Thompson, 1997) saw an improvement in the ABC’s competitive potential. By 1998 the relative production costs of ABC radio and TV services were cheaper than most commercial players when advertising was removed from the equation (Withers, 2002). The ABC operated more efficiently than either the BBC or CBC on a cost per capita per day basis (Withers and Powall, 2000) and ABC Online had been ostensibly established at a fraction of the cost of its local competitors (Inglis, 2006).

I will also demonstrate that the attendant discourses of neo-liberal enterprise — efficiency and productivity — also prepared the ground for the unplanned and rapid development of ABC Online. It emerges as a technology through which the ABC can maintain competition and offer choice, the two major concerns of a major 1980s federal inquiry into the role of the ABC (Dix, 1981a, 1981b). Enterprise then acts as pivotal motif in new media policy and practice, and a factor in realignments of power within the ABC.

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12 This is suggested, for example, in political speechwriter Don Watson’s (2002) anecdotes about Paul Keating’s aborted plan to reshape the ABC.
13 See the Commonwealth Public Service Reform Bill 1984, and discussions surrounding this (eg. Stretton, 1984); as well as a 1986 policy discussion paper on efficiency and accountability in statutory authorities and government business enterprises (DOC, 1986).
The ABC’s success in web publishing has led to the resurfacing of a 1930s dilemma — that of justifying state intervention in a competitive media environment. It is caught between articulating a ‘responsible’ economic strategy, with relatively populist programming and a degree of self-funding commercial activity, and asserting its continued need for public subsidy. It shares this problem with European counterparts, in conflict with commercial broadcasters who wish to restrict public service broadcasters’ entry to new digital media markets (Collins, 2002b; Harrison and Woods, 2001; Syvertsen, 2003; Born, 2004).

Keeping public broadcasting, but restricting its access to new media technologies or markets by limiting its role to broadcasting, as the 1997 Mansfield inquiry suggested for the ABC, would appear to be a counter-intuitive move in an informational context. This is in part because, as Lash contends, we (in the West) are “technological forms of life” (2002: 15), dependent on our interface with cybernetic systems for our understanding of being, our physical existence and social contact. In this sense maintaining culture at a distance, which is a major challenge for the ABC in the informational context, requires continual exploration of the techniques by which this may best be achieved. Further, as Andrew Barry documents, the action of governance is increasingly a technical exercise, because a technological society takes technical, rather than social, change “as the model for political invention” (2001: 2).

Technological governance

From the 2000s the digital turn in public service broadcasting research, dealt with more fully in Chapter 4, posed new communications technologies as means of enhancing existing institutional functions. “The aim of integration”, according to Barbara Thomass (2003: 34) can no longer be supported by broadcasting alone and must include the use of all relevant “technical devices” for content transmission.

Modernity’s dependence on technical solutions to social problems is a familiar tale, told most often in terms of industrial modernisation (Giddens, 1990) and the economic crisis of control (Beninger, 1986). However Francois Lyotard suggests the preoccupation develops during the first industrial revolution, with a dual understanding of technology: first as optimising performance, through better or more efficient production, and second as part of a “reciprocal equation”: technology as the province of the wealthy, and a pre-condition for wealth (1984:...
In this way, he argues, ideas about technology were separated from the classical Greek notion of technai and tied instead to scientific knowledge, performance and investment.

Spurgeon (1997) invokes this narrative in mapping the dominance of technological determinism in Australian communications and media policy under a liberal statist Keating government. In particular she notes the shift to an idea of ‘technological neutrality’, whereby the state would legislate the general provision of communications services rather than particular delivery systems. This altered the focus of policy practise from considering issues of social context and power, to “problems of market context and power” (p. 27).

I will trace the impact of this direction on the ABC’s change agenda (and internal resistance to web publishing), starting in 1992 with its response to communications liberalisation. But Hawkins (1997) rightly locates contemporary policy angst about the organisation’s future stemming from the earlier three-year Dix inquiry, 1978–1980, which found the ABC’s portrayal of Australian society, its technological status and its approach to change moribund. “It has not only slipped from the forefront of change, but threatens to be eclipsed by it” (Dix, 1981a: 1).

Parliamentary debate about the Dix report, and the organisation’s subsequent incorporation under the ABC Act (1983), advocated institutional renovation. There was concern about improving the ABC’s transmitter maintenance and complaints process and extending its broadcasting services through a widened cultural remit. Speeches pressed it for increased competitiveness, chiefly through amended financial provisions but also through potential involvement in satellite, cable, radiated subscription (RSTV) developments, multichannelling and digitisation. It is not clear though, whether the corporation’s new Charter directive to provide “innovative” service provision related to the proposed technological fixes or to the aim that the ABC produce novel forms of programming (see Dix, 1981a: 1, 1981b: 47, 52 and 752–8). Dix, and the prevailing policy discourses of technological determinism, set the uncertain reform course that led to interactive multimedia publishing.

But this analysis will not be determinist in its focus, as it has to account for the unexpected agency of a range of social and political actors. Technological determinism depends on a

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45. See for example Sen. Sir John Carrick (Hansard,1983b) and also ongoing debates on the ABC Bill, Hansard (1982) and (1983a).
conception of technology as divorced from its political and ethical capacities or effects. Like Raymond Williams I wanted to investigate these social elements of “direct intention” (1990: 13–31) in technological development to find out why certain methods of governing the future were promoted over others. Doing so required a theoretical position that could accommodate the notion of an informational subject that was both governed, but potentially governing – that is, able to apply its skills to influence the development of the technological forms of rule instituted to measure or develop its capacities.

Understanding change

Raymond Williams’ attention to social needs, purposes and practices inspired domestication studies (Silverstone and Hirsch, 1992) and cultural determinism (Winston, 1995) – both describing change processes, but to a lesser extent exploring their social causality. Brian Winston’s theory, for example, relies too heavily on the forces of economic power and capitalist social relations as change drivers, and does not explore the “transformative capacities of social agents and actor networks” (Flew 2005: 46).

Early social constructivist technology studies (see Mackenzie and Wajcman, 1985; Woolgar, 1991) agree on the capacity of social networks to effect technological change but, in what technology philosopher Phillip Brey implies is an anti-positivist demonstration, resist defining any real properties of a technology and their contribution to its successful adoption (Brey, 1997). This ontological certainty is found in the dominant organisational change theory, Everett Rogers’s innovation diffusion theory (1986, 1995, 2003). It however does not adequately theorise the collision of organisational objectives and individual creativity in unstructured or radical change, a focus of recent studies on innovation in organisational culture (Bers, 2005; McLaughlin, Bessant, and Smart, 2005).

I begin from Lash’s proposition, stated earlier, that we operate as “technological forms of life”, or man-machine interfaces – meaning that the ‘real’ properties of any technology are phenomenological, observable in their cultural employment and social meanings. Understanding social or institutional change then involves interrogating actors’ motivations for technological adoption and observing their influence on social structures through their use of technology. Rather than privileging the impact of either structure (institutional power)
or agency (individual creativity) I will seek to examine a cyclical process – how governmental technologies may be developed in response to the actions of active subjects, and how those subjects’ associations with others who share their cultural values or ethical concerns may re-direct those organisational objectives.

My work is in the social constructivist tradition of studies that seek to show that technology and culture are mutually determining (Wise, 1997; de Laet, 2001; Oudshoorn and Pinch, 2003). Rather than adopting sociological ‘shaping of technology’ approaches, I have developed a technocultural governmentality analysis. This acknowledges that while certain actors or groups employ technologies to govern others, they can only be successful in that they effect cultural change to support the acceptance of those technologies.

The thesis is technocultural in two senses. First it examines the shaping of culture through communications technology, altering time/space relations (Green, 2002) and proposes that industrialisation and computerisation of communications have fundamentally shifted the terms of the social discussion, performance and creation of culture:

Elements of sociability…have become part of machines, but now are crucially engendered and empowered by their arrangement within such assemblages until it is functionally impossible to distinguish them. (Fuller, 2005: 69)\(^{15}\)

Second it understands technocultures as having varying normative understandings of technology that differentially affect their approaches to communication and the mediation of culture. As Chapters 2 and 3 indicate, for example, that the ABC’s IT specialists had different understandings of the Internet, including frameworks, procedures, priorities and uses for internetworking, than its program-makers. Structurally this is hardly a new insight. Systems researchers have long identified that “the organisation is a coalition of groups and interests, each attempting to obtain something from the collectivity by interacting with others, and each with its own preferences and objectives” (Pfeffer and Salancik, 1978 p. 36). Yet technocultures have different ethical approaches to governing, even given the same devices and communicative objectives.

\(^{15}\) A problem in case would be the extent to which online chat can be understood as writing or speech.
To see why the ABC pursued one form of interactive multimedia over another and how this impacted on its role, I describe how the process of technological transformation relies on the subscription of actors to certain ethical understandings, networks of meaning and power (particularly discursive power). My governmental analysis, in this sense, resonates with actor network theory. Both are concerned to identify and characterise the network of self-organising associations that influence organisational outcomes. Rose describes governmentality studies as trying to analyse the structures that emerge from interactions and interdependencies between a range of actors “of which the state is only one” (1999: 17). However while ANT explains technological shifts as a process of actor-networks gaining (or losing) support and persuasive power (Tatnall and Gilding, 1999), it does not interrogate the field of ethical relationships probed by governmentality.

In the case of the ABC it is important to understand why certain program-makers acted against institutional norms, driven by their own beliefs and values. This helps to reveal why they adopted and championed certain technologies, and how this contributed to positive innovation outcomes for the institution against all odds. How, to use a Foucauldian query, did they question the rationality they worked against? This becomes clearer if we understand individual ABC staff as exemplars or ethical beings, each striving to fulfil their own purposes and those of the organisation. Where these goals appeared to conflict, we can chart moments of individual (and later shared) resistance to organisational norms which were the sites of unexpected and innovative problem solving.

Exemplary disorganisation

Many ABC staff have considerable creative decision-making freedom within their work environments (Davis, 1988: 104) and “hierarchy and consultation are mixed in an unstable compound” (Inglis, 1997: 5). This contributes to the tendency for the ABC’s many parts to behave in ways contradictory to its organisational focus. Davis describes the broadcaster as a “diffuse, multifunctional institution, difficult to co-ordinate, seemingly impossible to manage” (Davis, 1988: 92), with continuing “centre-periphery problems” (1988: 95).

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16 See Foucault (2000b) on the challenge of resisting political rationality.
Why this situation differs from the greater conformity of other public service entities is partly explained by Lucy Küng-Shankleman’s (2000) organisational culture study of BBC. She finds that BBC staff are strongly guided by their Charter obligations, a sense of civic duty, commitment to excellence and the notion of service to the public, even where these aims conflict with managerial directives – a situation that arises, for example, in resistance to commercialism and during economic reviews of work practices (2000: 135).

Küng-Shankleman’s findings resonate with Jacka’s (1997a) and Burns’s (2003) descriptions of ABC broadcasters as ethical exemplars, intent on reifying the abstract and divergent aims of their mission statement through their programming. They are ethical in the sense of helping listener/viewer/users develop what Foucault referred to as an ethics of self: an awareness of their moral selves, their obligations to normative behaviours, their capacity for ethical reformation and their telos (Simons, 1995). In turn, argues Foucault, this task can only be successfully executed through prior “care of oneself”, the realisation of an individual êthos, or way of being, which he marks as the pathway to the freedom to govern others (Foucault, 1997b: 286–287).

It is this understanding of ethical development that is missing from Kung-Shankleman’s attempt to determine the factors that drive organisational innovation. She links the incentive to innovate to ”intrinsic task motivation” and cultural factors like “high levels of personal autonomy, lack of bureaucracy, organisational flexibility…a track record of breaking received wisdom, a high tolerance for risk and relatively high levels of funding” (2000: 209–210). Few of these cultural factors are evident in the ABC during our period, and more of her disincentives (like red tape, stretched resources and a complex remit) apply. The proposition made here is that ABC exemplars intrinsic task motivation is an ethical motivation, a factor in turn tied to their degree of creative ‘autonomy’ – the perceived (if not unconditional) freedom to act in one’s own interest and on behalf of others.

In the next two chapters I describe how a small number of ABC exemplars effected institutional change from below through their individual cultivation of personal computing knowledge, and their ethical application of this in the workplace. I will demonstrate how they adopt internetworking and later web publishing against the ABC’s norms of technological development, but in concert with its public service ideals. Some ABC workers articulated an “internet idea”, about freedom of information exchange, diversity of views, access and equity
that they saw corresponding with the notion of public service broadcasting (Burns, 2003). However their greatest impact was working in a cross-hierarchical association, persuading ABC executives to experiment with an online publishing service, which was gradually supported by and integrated into existing broadcast operations. This is where Scott Lash’s notion of disorganisation helps to understand the strategic power of these actors.

Disorganisation is a term that arises from Lash’s research on the restructuring of social relations that have occurred in the twentieth century, principally through globalisation, economic and labour market restructure (Lash and Urry, 1994; Featherstone, Lash and Robertson, 1995). While the analytical power of their economic thesis was challenged early on (Harvey, 1990) they rightly noted that in the late twentieth century social relationships were increasingly extra-institutional and conducted through (often transnational) networks of semantic exchange. Disorganisation, in this context, describes the power of self-reflexive individuals to socialise, negotiate and produce meaning outside of institutional norms.

Lash’s disorganisations (2002: 39–48) are fluid social networks based on shared cultural values and skill sets, which emerge from the decline in social allegiance to church, state or corporation. Following Ulrich Beck’s (1992) notions of risk and unexpected outcomes, he posits disorganisations can also evolve as “the side effects…the unintended consequences of the rationale choices of organisations” (2002: 40) – as in the internetworked, project based and contingent work partnerships of small companies in the multimedia and software industries, which have developed due to corporate practices such as outsourcing, teleworking and the promotion of entrepreneurialism (McRobbie, 2002). The power exercised by these relations is not a function of legal rule systems, or traditional loyalties to rulers, but is illegitimate, tribal and unpredictable (Lash, 2002: 43–44).

Where Lash’s disorganisations are, apparently, extra-organisational relations I argue that they may also be intra-organisational, that is, disruptive alliances emerging from within a hierarchical system under threat. Disorganisation in this sense embodies the logic of contestation which Nikolas Rose (1999: 277) suggests influences societal development as much as the imperatives of control. I will show that the ABC’s embrace of a neo-liberal enterprise rationale and expanded use of information technologies sponsored a separate, and disorganisational move among its exemplars to adopt personal computing and internetworking. This subsequently (and not without some debate) led to the broadcaster’s
experimentation with, then widespread adoption of, a flexible model of web publishing and its later moves to commodify its new online flows.

In the process a technology conceived of a social welfare state adapts to a new political and economic rationale – conforming to the dynamic that Lash documents as characteristic of informational capital:

There is a sort of twisting dialectic involved in the information society. It moves from order to disorder to new order. Highly rational and knowledge-intensive production results in a quasi-anarchy of information proliferation and flows. This disorder of information produces its own power relations. These comprise the immediate power/knowledge of bytes of information on one hand, and the reordering of information in categories of intellectual property on the other. This seems to be the context of capital accumulation on a world scale in the information age (2002: 4).

Conclusion

Broadcasting may no longer be the most effective tool for translating the governmental programs of a liberal nation-state in an era of global flows. International movements of trade, people, symbols and ideas escape the geo-political reach of state regulation. At the same time they require institutions like the ABC to somehow maintain a connection with a nomadic population, and promote their interests at an international level. Further the lived heterogeneity and cosmopolitanism celebrated under informational capitalism make the projection of shared political or cultural ideals more difficult – especially for the ABC, existing as it does in the shadow of the chartered multicultural broadcaster SBS. In any case, broadcasting’s centralised information architecture, hierarchical economic logic, and entrenched practices of control operate to restrict possibilities for the local or individual to be represented in their substantive complexity.

Lyotard (1984) prefigures this argument in his *The Postmodern Condition*, where he talks about the exteriorisation of knowledge through computerisation, its consequent mobility and privatisation, and subsequent threats to the regulating powers of institutions such as states.
In the coming chapters I discuss how ABC executives respond to these immediate and historic problems by developing new communications technologies and distribution channels – playing out the institutional rhetorics of choice and enterprise central to a neo-liberal rationale. Their policies in turn give rise to unexpected productive alliances and a lobby for a new form of public service media. While ABC management then succeeds in reshaping the institution along ideological lines, with a more competitive focus and more flexible work practices, this also poses questions about the ABC’s need to intervene in certain areas of media markets. Its more competitive trajectory further problematises its contradictory rationale. How can it be, for example, both more popular and properly educative?

Such ethical questions were not the prime concerns driving investment in new technologies. As the coming analysis will reveal, the corporation’s objective with technological investment were largely instrumental and determinist. The task of exploring new ways of expressing the notion of ‘public service’ was largely the domain of program-makers, the exemplars given the primary task of translating agendas, ideas, experiences and opinions across the space of government. What remains to be discussed is how they and others within the ABC constructed their own ethical relationships with and through new technology. From where did they draw their ideas about effective forms of change? How did they react to the emergence of internetworking, and a new group of technologically literate subjects, users? How did these concepts influence their adoption of, and advocacy for, interactive multimedia forms such as web publishing?
Chapter 2


Networks do not so much reflect social, political and technological reality; they provide a diagram on the basis of which reality might be refashioned and re-imagined: they are models of the political future. (Barry, 2001: 87)

In the early 1990s while the ABC was developing new digital broadcast services, it also adopted two interactive multimedia technologies, CD-ROM and the World Wide Web. Existing accounts of the period indicate CD-ROM publishing was a structured, policy-directed process, while web publishing was an unstructured, disorganisational bottom-up innovation (Martin, 1999b; Burns 2003). Yet this chapter demonstrates that both were fundamentally shaped by an organisational focus on the neo-liberal discourse of enterprise. It suggests that the different trajectories of digital service adoption revealed by a pre-history of internetworking illustrate contrasting technocultural models of the ABC’s political future as it negotiates a period of informationalisation.

This research shows senior executives, program-makers, IT administrators and internet publishers adopted differing interpretations of being ‘public service’ through technological change and thus, often conflicting notions of how digital technologies might function to govern. ABC executives invested in digital broadcasting services to raise revenue and networked information computing technologies (ICTs) to increase productivity and restructure workplace relations. These services and tools did not necessarily address program-makers’ communicative needs, and some found alternatives in personal computing and the nascent Internet. The accounts that follow describe program-makers’ disorganisational reactions to the corporate control of network flows and the commodification of public service broadcasting, which incrementally led to the creation of a decentralised, public access ABC web publishing service.
A new rationality

On 1st July 1992 the ABC celebrated its 60th birthday. A decade after the Dix inquiry had described the organisation as “slow-moving, overgrown, complacent and uncertain of the direction in which it is heading” (Barr, 1985: 107) it had shed over 1200 staff, was more cost efficient and attracting record audiences, despite having a significantly reduced budget (Craik & Davis, 1995; Dempster, 2000). Managing Director David Hill (1986–1994) ran the corporate ABC according to the prevailing neo-liberal political discourse of enterprise. Enterprise encompassed ideas such as efficiency, productivity, and rationalisation, all elements of the Dix Inquiry recommendations.1 These concepts would shape the ABC’s internal restructuring during the period under study, and were at the core of many industrial tensions.

The Federal government had also instituted a new era of broadcast competition, signalled by major law reform. The 1992 Broadcasting Services Act (BSA), gazetted only days after the ABC’s birthday, was the first complete regulatory overhaul of broadcasting since 1942. It reframed Australian media policy’s economic and cultural boundaries, which had been based on a ‘public trust’ model of regulation (Flew, 2001b), and placed greater emphasis on free market principles, for example in the areas of spectrum allocation and licensing (Davies & Spurgeon, 1992). The new Act put the organisation of three new categories of broadcast services – subscription broadcasting, subscription narrowcasting and open narrowcasting – largely in private hands. It did not designate the ABC as an essential service or a special case for government consideration in communications regulation.

Senior ABC executives saw narrowcast and commercial services, especially subscription television, as the keys to the organisation’s survival under greater competition (Long and Smith, 1992). They lobbied government to secure a controversial amendment allowing the ABC to get involved in all the legislated new services.2 In response to the changing media environment the executive proposed a significant agenda of technological change with a dual

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1 For a more detailed account of state enterprise models of the time, see Stretton (1984) and the Department of Communications proposed policy guidelines (DOC, 1986).
2 See 25 (5) (d) of the ABC Act 1983. In the lead up to the introduction of the Bill, some politicians expressed concern about the ABC’s ability to unfairly compete with new private services, and the possibility that it would draw from budget funded activities to fund commercial ventures (ABC, 1992b).
enterprise focus: reasserting the ABC’s national relevance through new commercial services and increasing productivity through the use of ICTs.

The penurious fate of its early 1990s commercial broadcasting ventures is well documented (Dempster, 2000; Inglis, 2006), but I will chart that relatively unrecorded aspect of its economic reforms – the gradual diffusion of internetworking and personal computing though the organisation, which led to the creation of ABC Online. This history is important to understanding how the ABC’s internal and external social relations altered under informationalisation and how the democratisation of internetworking and digital media would later impact on its role as a public service broadcaster.

An online ABC was not imagined in mid 1992 when the broadcaster’s television and radio science units set up their first Internet connections, ahead of their research and development colleagues. Although Australia’s computer scientists had been networking from the mid 1970s, in the early 1990s Internet users were largely based in research institutions like universities. Corporate Australia had used digital networking since the 1980s but mainly via closed ‘value added networks’ (VANs). US vice-president Al Gore’s ‘information superhighway’ rhetoric had fuelled global commercial interest in interactive multimedia, even prompting a round of media alliances to secure content and networking technology (Tracey, 1998), but its projected object had yet to emerge. In labs of Geneva’s European Council for Nuclear Research (CERN) Internet pioneers had developed software that would enable the building of the open standard, platform neutral World Wide Web although the first external web servers were only just being established (Berners-Lee & Fischetti, 1999). The graphical interface software that would help popularise Internet use was at least a year away. However by 1995 several ABC program-maker groups had published their first websites, prior to any corporate policy on online publishing.

The absence of such policy may be due in part to differing technocultural conceptions of computer networking. In the period before 1995 ABC executives originally conceived broadcasting and ICTs as playing different roles in the operationalisation of enterprise – the former in competition for audiences and revenue generation, the latter in the restructuring of

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3 These delivered email and structured data to clients like banks, but their connections were designed for voice transmission. Data-carrying capability had had to be “grafted” on to them (Clarke, 2004b: 15).

4 The term Gore adopted in his 1991 push to build a US National Information Infrastructure.
administration and operations. The ABC’s information technology management and research units served, in the main, to reinforce this agenda. Technate program-makers, through their use of ICTs in research, recognised how these two fields of governance could overlap online – how computer networking could be used to improve production and to better communicate with audiences. But to the ABC’s growing technocracy the Internet was a radical technology which threatened organisational economics and security. Web publishing was institutionalised in the ABC Online project only when the Internet finally represented the intersection of conflicting governmental designs for the ABC’s future – most importantly, speaking to its enterprise rationale.

Enterprise and informationalisation

During the early 1990s enterprise and technological determinism operated “interdiscursively” (Fairclough, 2005b: 5), between Australia’s political and media orders of discourse – that is, they were linked in the various forms of communication that comprise legislative process and strategic policy. In analysing Australian communications policy Spurgeon (1997) locates digital technological determinism as an influential factor in the evolution of Australia’s post-industrial economic development strategy. Digital technologies, she argues, became the material focus for ways of changing communications and social space and also figured as a “pre-condition to establishing competitive markets” (1997: 252).

This interpretation can be seen in the first reading of the BSA Bill in 1991. Labor Communications Minister Kim Beazley stated that the new provisions would, by enabling the conditions for technological change, “facilitate the development of a broadcasting industry that is efficient, competitive and responsive to consumer needs” (Beazley, 1991: 3). He also emphasised the importance of the legislative shift to technological neutrality, where services rather than delivery technologies would be licensed. However the eventual Act retained a distinction between content delivered by media and telecommunications networks. On demand dial-up information services, or value added networks (VANs) were excluded from the provisions and their content unregulated, although theoretically telecommunications law applied (Leonard, 1992). Thus the ABC was not initially confronted with the need to be enterprising in the delivery of such information services.
The determinism and dualism of communications competition discourse was echoed in ABC strategic policy and its public rationale. In November 1992 the assistant Managing Director of the ABC, Malcolm Long, and Jane Smith, the director of Corporate Policy and Planning, used an academic journal article to outline ABC plans for the imagined millennium ahead, “with its rapid developments in diversity, technology and deregulation” (Long & Smith, 1992: 31). They described new broadcasting technologies as the means of satisfying diversifying “consumer demand” (p. 29) and the key to developing competitive subscription channels which would supplement “tight” government funding (p. 31). Information technologies were described as a way to make “significant productivity gains” (p. 29) and “improve performance” (p. 32).

The connection between ICTs and enterprise had been made in operational strategy at least since the mid 1980s (see McCarthy, 1985; Hill, 1988, Palfreyman, 1993). At that time the ABC became one of the first Australian organisations to use an internal email service when it adopted the VAX administrative system, which also offered primitive word processing, a corporate directory (All-In-One), financial and human resource information processing packages via a national wide area network (WAN). The organisation also began researching, developing and implementing its own digital production systems. Managing Director David Hill was boosterist about the impact of employing new computer systems, partly, Palfreyman (1993) argues, in order to shake off an image of the ABC as staid. Consequently a euphoric tone was evident in public statements about the ABC’s ICT design and development program. Hill, for example, claimed the corporation’s in-house developed (but never completed) “radio people meter” would “revolutionise the collection of radio audience information” (Hill, 1991: 6).

However ICTs were primarily used as control technologies (Beninger, 1986), adopted to standardise and accelerate administrative or operational information flow across the ABC’s many territories. A prime example was BASYS, a UNIX-based distributed digital production system adopted in 1988 at the ABC press office at Canberra’s new Parliament House. It enabled news staff to write, edit, archive, schedule and distribute news items between desktop workstations and newsroom sites. By 1992 it had spread across the corporation, and was

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5 Before the advent of spam, or junk email, electronic mail was recognised as a tool for speeding up organisational communication and increasing interpersonal connections (Rogers, 1986; Sproull and Keisler, 1991).
linked to the VAX system, wire services such as Australian Associated Press (AAP) and Reuters, and proprietary database services.\(^6\)

According to project manager Kevin Balkan, BASYS also “revolutionised” the work practices of ABC news and information programs (Balkan interview, 1998). Items that previously had been typed with carbon copies and distributed by telex could be networked in under five seconds. Multiple users were able to access the same story simultaneously, allowing producers and editors more control over content development and scheduling. BASYS linked Radio and TV newsrooms around Australia, allowing them to function as discreet local area networks (LANs) when the corporate network failed. Employees had dial-in access, enabling them to work from home or overseas. Balkan estimated that by 1998, at a cost of roughly $10 million, BASYS would have paid for itself four times over in terms of salaries saved without any productivity benefits taken into account (Balkan interview, 1998).

At the start of the 1990s ABC managers were more occupied with the potential structural efficiencies of ICT adoption than exploring multimedia content innovation. In their vision statement Long and Smith briefly note CD-ROM, then attracting significant international commercial interest, only as a new audiovisual product for ABC shops.\(^7\) Overseas major media players were competing for access to content libraries to distribute existing material on new platforms, but as a budgetary economy, David Hill had proposed “reducing or abolishing” the ABC’s reference libraries and archives, along with their staff (Hill, 1991). They were to be replaced, in part, with subscriptions to proprietary databases. In defending the move Long reportedly argued that ABC Radio was not in the business of producing a media archive: it was in the business of making day-to-day programming (Rapley interview, 1997).\(^8\)

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\(^6\) As early as 1985 ABC Radio broadcasters began to use proprietary database services for research. These services included Ausinet (Australian Information Network), ABN and Profile, supplied by ACI Corporation (later to become Ferntree Computer Corporation), a major provider of information technology to government and corporate Australia. Ferntree offered free training to departments that opened accounts (Bartholomaeus, 1993: 13).

\(^7\) At the time transnationals such as Matsushita, Philips and Sony were in the throes of developing multimedia systems based on the success of CD-ROM (Rickett, 1993: 82).

\(^8\) Long’s stance was at odds with the concurrent global competition between News Corporation, Turner Broadcasting, Matsushita, and Time Warner for the control of broadcast libraries that they could exploit in subscription television and new media industries (see Tracey 1998: 185).
In this instance, and in other industrial disputes involving the introduction of ICTs, ABC management tended to justify its change agenda with the rhetoric of technological liberalism, in which new technologies were not only instruments of progress, but “ends in themselves, capable of directing, conditioning and attracting attention” (Barney, 2000: 50). For example, following library job cuts, Sydney’s Federal Reference library and that of Melbourne’s Radio Australia were relabelled the National Information Service, which was to “utilise the latest in information technology” (Revill, 1991: 1).

Thus under an enterprise rationale the ABC’s informationalisation – its use of space-time compressing technologies and a subsequent increase in digital information flows – preceded its subsequent drive to commercial service provision in a liberalised broadcast market. ABC managers persuasively supported the informational shift using determinist language about the power of technology to govern economic and social change. This was nowhere more evident than in discussions of technology’s intended effect on the ABC’s organisational culture.

**Computerisation**

Quentin Dempster (2000) records that David Hill intended to use new technology to change working conditions, for example in the new $150 million ABC headquarters at Sydney’s Ultimo. This caused a degree of contention around technological change. Ultimo was the testing ground for the OUIJA radio touch-screen control system, adopted to enable presenters to panel their own shows, removing the need for studio engineers. But operational staff were not consulted about its design or development (Dempster, 2000: 49) and it was unable to execute simple manoeuvres such as cross-fading of sounds. Radio current affairs refused to use the unreliable, restrictive system for some time because of concerns about its effect on the quality of broadcasts. Palfreyman, an ABC journalist, argues that BASYS and other digital production systems, were welcomed by staff “with unexpected enthusiasm and a minimum of industrial problems” (1993: 15). Yet the introduction of BASYS alone resulted in the redundancies of around 100 news typists countrywide and debate about the use of video display terminals (VDTs), which paralleled earlier disputes about their use in the print industry (see Mears, 1985: 4-5).

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9 See also Nicholls (1991) and Palfreyman (1993).
During the informationalisation process ICTs came to have divergent lived meanings and ethical associations for different type of employees and work units. In ongoing industrial disputes over the restructuring, the union represented program-makers as defending the public service ideal and “the integrity of each of their crafts: the craft of the designer, the producer and the technical director” against the enterprise agenda (Boland in Dempster, 2000: 40). Yet Malcolm Long spoke of “computerisation” as a means of breaking down unproductive demarcations between “the tweed jackets and the dust coats” – between “gentlemen” broadcasters, who Long said did not use technology, and technicians, who did (Palfreyman, 1993: 11).

More accurately the ABC’s structured adoption of email, databases and digital production systems instead created new technocultural alliances and divisions around access to information networks. First it resulted in the creation of a technocracy that assumed a measure of control over both production and administration functions. This apparatus, which implemented managerial directives on structured change, included the ABC’s own information technology and technology research units, as well as the technical managers and trainers who implemented change. In its instrumental focus it did not always serve to break down workplace barriers – instead reinforcing systemic centre-periphery control structures.

At its operational heart was the Management Information Services (MIS) department. MIS had been established to maintain the ABC's voice and data systems, with a focus on management support and accountability functions. It reported directly to ABC Finance and from 1992 operated on a user-pays service basis. It was responsible for the VAX system, which VMS operating system and architecture was based around a mainframe structure with ‘dumb’ terminal access to end-users. MIS retained purposive control, so unlike the users of personal computers, VAX users could not customise their operating systems or applications.

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10 Dumb terminals have no internal processing power and are built to communicate solely with a host or mainframe computer.
Where MIS did develop production technologies these replicated the centralised, hierarchical, segmented organisational structure. From the mid 1980s it had produced VMS-based databases for various program support areas, including the national network of music libraries. The new products were relatively cheap to develop in-house. However they had clumsy interfaces, with arcane command structures, and relied on familiarity with the cataloguing methods of each information area. Each program required special training. Once developed, the programs could not be easily modified without consulting MIS. Each new database application was built separately in response to the requirements of individual departments, and did not cross reference or ‘talk’ to others – for example, the Classic FM radio track scheduling database MUSK did not use information found in music libraries’ SOLID database, often resulting in duplicate information keying (Bartholomaeus interview, 1997).

In some cases program-makers brought in specialist ICT knowledge from outside the corporation to improve their working conditions. When head librarian John Bartholomaeus was appointed in 1990, he found ABC collections operating on the paradigm of a “1950s English public library” with insufficient staffing to either successfully maintain the collection or adequately service the potential client base (Bartholomaeus interview, 1998). He had come from NSW TAFE (Technical and Further Education), an ICT pioneer, and introduced those resources and skills to his ABC colleagues. Following the library rationalisation dispute he wrote detailed reports on how library mergers could better take place, emphasising the need for an ABC-wide information management plan, including standard digital document conventions and integrated networks. He also argued that subscription database services could be unduly costly in the hands of unskilled users (see Bartholomaeus, 1993: 13). He said his reports to management went largely unremarked upon.

11 From the 1980s TAFE used the US government’s online information service Educational Resources Information Centre (ERIC), as well as an online and CD-ROM library catalogue.

12 Bartholomaeus relates that at one stage ABC Current Affairs’ account was under threat at one stage after a careless user left his computer logged on to Ausinet overnight, chalking up a bill in the thousands of dollars.
As I will document, science and social history broadcasters were also network innovators, communicating through their internet research with the computer enthusiasts that Mark Finn (2000) argues extended the internet. So while Burns (2003), after Palfreyman, also adopts Long’s technician/broadcaster binary, noting that ABC “work practices lagged behind both the new technologies and management strategies for their implementation”, this was not always the case. The ABC’s early adopters of ICTs developed experiential computing expertise particular to their workplace practices. Where they applied this technocultural knowledge and experience to production innovation they can be recognised as a separate force for organisational change. This proposition is illustrated in staff accounts of email institutionalisation.

**Email: structured and unstructured change**

The ABC’s decision to introduce an internal email system for management purposes was a structured organisational change or an “authority innovation-decision” (Rogers, 1995: 372). Here the need for innovation is perceived by those with “power, status, or technical expertise” an organisational problem matched to it, the innovation is re-invented or redefined to fit the organisation, and it is then restructured to implement the innovation. Marghanita da Cruz, then with MIS, was VAX email’s ‘product champion’, personally promoting the new technology. She reported that when she joined that department in 1988, there were only a few hundred email users. At the ABC’s first women in management course in 1989 da Cruz said she was aghast to find that none of the representatives seemed to know what MIS was. She hooked them all up to email. She then reconfigured the software and promoted it throughout the corporation, so that by the time she left MIS in 1992 email was considered a “mission critical” tool. It had some 3000 users and had been linked to the BASYS system (da Cruz interview, 1999).

However email was regarded primarily as an administrative tool. Only some broadcasters, few support staff and no studio technicians had access. Middle managers cited the cost of email accounts as one reason for denying program-makers access. Da Cruz cites another – the fear that email would change how people communicated within the organisation, breaching divisional and hierarchical boundaries. A third possibility, evident from a 1997 review of technical issues in the ABC, was that until the late 1990s, MIS first accountability was to
management-defined production goals and administrative systems, rather than the needs of broadcasters and program support staff (Lindsay, 1997: 4).

In 1992 when ABC science program-makers contacted MIS wanting TCP/IP internet access to improve their research capacity and make better programs, it did not respond formally.\textsuperscript{13} The Internet was not a corporate or technical priority. Da Cruz informally recommended that the broadcasters should link up with the University of Sydney’s AARNet service, and “eventually the ABC would do a cost benefit analysis and get signed up as an organisation” (da Cruz interview, 1999).\textsuperscript{14} She was disappointed when MIS would not formalise, circulate or promote her recommendations.

In lieu of MIS support, between 1992 and 1995 program-makers ended up arranging their own internet service provider (ISP) accounts and bought their own personal computing hardware, with no additional budget allocation (Allen interview, 1998). John Bartholomaeus set up program-makers’ first dial up internet email trial in 1994 through the NSW Information Libraries Access Network (ILANET), with the NSW State Library providing subscriber training. This drew together program-makers with an interest in internetworking.

As will be revealed later MIS staff slowed a more structured process of internet access for some years due to management, security and cost implications. Regional ABC radio stations were only Internet connected in late 1998. In mid 1999, ABC journalists were not automatically assigned an internet email account, and most had limited access to full web browsing services (in the Sydney radio newsroom this meant a couple of communal terminals rather than desktop access). Some resorted to domestic use of the ‘free’ commercial email service, hotmail.com, for work purposes.\textsuperscript{15} There was a five-year gap between the development of a plan for corporate internet access in late 1994 (ABC IT, 1994a), and its ABC-wide implementation in 2000. This contrasted with the university sector where already in 1995 a national survey reported 100 per cent academic use of email to facilitate communication and academic research (Bruce, 1996).

\textsuperscript{13} The TCP/IP suite of communications protocols supports email, file transfers and remote computer access. These protocols or code sets underpin internet connectivity (Bruce, 1996).

\textsuperscript{14} From 1990 AARNet [the Australian Academic Research Network] provided Australia’s first major internet gateway, but “most members of the potential user community had little, if any awareness of AARNet” (Cleary & Linklater cited in Spurgeon, 1997: 152). In 1992 an article in the Australian Financial Review went as far as claiming “niche technologies like the Internet did not yet exist locally” (Crawford, 1992: 50).

\textsuperscript{15} As indicated by Nonee Walsh, a senior ABC News journalist, in conversations with the author during 1998.
To a large degree the ABC’s internet innovation process was limited by procedural norms. The executive was responsible for setting the change agenda, but as former Microsoft Australia manager and author Daniel Petrie notes, corporate managers of the early 1990s were rarely personally engaged in complex, globally focussed research and so were isolated from impact of personal computing and the Internet (Petre and Harrington, 1996). The executive relegated technical innovation to a separate unit, Technology Research and Development (TR&D). It had established its first Internet link in December 1992 via Sydney University, as a registered affiliate of AARNet. Staff used the Internet to access up-to-date technical information, communicate with equipment suppliers and to receive file transfers of software applications or upgrades (Loxton, 1995). However TR&D’s priority was to develop marketable digital systems such as DCart and DRadio.

MIS also facilitated top-down, commercially driven innovation. Its modus operandi was to define a business need, look for an ICT package that would meet this need, and then tailor that package to meet the need (Silva interview, 1998). By 1993 Gary Dowling, then head of strategic/operations, identified TCP/IP protocols as a means of getting the various ABC networks to talk to each other, but not with the aim of establishing internet access (Dowling interview, 1999). Instead the department was waiting for program makers to demonstrate that the Internet represented “cost savings” for the corporation (da Cruz interview, 1999). This presented something of a problem, in that so few broadcasters were connected to the Internet and no study of the economic benefits of internet use had been commissioned at a corporate level. Without doing a survey of internet needs amongst employees, a “legitimate business demand” could not be established, and individual applications could be ignored.

Thus there was little structural interconnection between the corporation’s mechanisms for ensuring creative production, delivering enterprise gains, and planning and supporting technical innovation. Moreover as the use of computers and digital networking increased there were hierarchical struggles within the organisation over the planning, development, control and resourcing of technical services. MIS, TR&D, TV and Radio Technical services all dealt with information technologies and preparing for the demands of digital broadcasting. Each department had its own priorities and production demands (Silva interview, 1998). MIS had the added responsibility for network infrastructure but, without the funds to completely rewire the ABC for internetworking, it had to do this on an incremental, user-pays basis (Dowling interview, 1999).
If the ABC’s slow and uneven uptake of internet access was any guide, we could well wonder how it developed one of Australia’s first media web publishing services, ABC Online. MIS was not prepared for it in December 1994, a couple of months before staff set up their own web sites and only eight months before the eventual launch of the ABC Online experiment in mid 1995. A draft internal document still listed “providing information to the Internet” as desirable, but behind the “mandatory” and “highly desirable” requirements of email and browser access (ABC IT, 1994b).

Instead it is possible to understand ABC Online emerging from the democratisation of personal computing and disorganisational responses to perceived failures of organisational change. Personal computing was flexible, mobile and more customisable than the centralised control architectures of other ABC systems – even BASYS, which although it ran on a distributed network, could only be modified by technicians. PCs and Macintosh computers extended the potential reach of enterprise to individual practices and into non-work spaces. Word processing, databases, spread sheets and music/sound production packages could be chosen to suit the creative idiosyncrasies of differing users or user groups. Although personal computing was not widely supported by MIS or managerial policy, and thus its adoption was sometimes considered illegitimate, program-makers used these tools to reconcile the enterprise rationale with their own production practices and values.

**Personal computing**

While ABC Radio management, based in the new Ultimo centre, was willing to invest significant sums in ICTs this was not the case in all areas of the corporation. Ian Allen (later to become ABC Online Science co-ordinator) joined ABC TV’s *Quantum* program as a researcher in 1985. He was fresh from running a bulletin board service (BBS) with his computer user group and thus was one of the computer enthusiasts at the heart of the Internet’s rapid expansion. Allen says he was surprised to find that ICT knowledge had not reached the “typewriter and All-in-One culture” of the ABC’s Gore Hill TV complex (Allen interview, 1998). At that time there were only three primitive DECmate word-processors in the entire Features department, and little knowledge of how to use them.

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16 See Finn, 2000: 140ff.
Allen set up *Quantum’s* first database (cobbled together from a mailing list program) through sheer frustration at the existing bureaucratic process:

…the thing that used to drive me spare was if you wanted to find out information about a past program, you wanted to reuse a clip from a previous story and you want to check the copyright status of it, it was really hard to find. Often people gave the programs cryptic names...you needed to know the episode number to find a tape. It was really cumbersome. The idea of using a computer to organise all this stuff seemed really sensible. Trouble was there was no-one to sit down each week and update it, so I was talking to the PAs [personal assistants] and realised they had this job that they absolutely hated, but they had all the information we needed to make the database. (Allen, interview, 1999)

The database was an enterprise innovation. It made it simpler to answer audience queries and plan production shoots. Later the “P.A.’s little helper”, as it was known, was used to automate other paperwork including transmission forms, using proprietary applications such as Microsoft Works and Filemaker Pro (Allen, interview 1999).

Initially when *Quantum* staffers sent out the non-standard forms, Allen said “ABC management hit the roof, and then forbade us from doing it”. Despite their acceptance over time, *Quantum’s* innovations were not encouraged. Instead Allen recalls television management decided to restrict computer purchases, based on an audit of computing resources that conflated ‘dumb’ VAX terminals with standalone and networked computers. Allen then bought one component at a time – hard disk, monitor then keyboard and mouse – to circumvent capital expenditure restrictions.

Some ABC television and radio units developed more extensive personal computing infrastructure than others due to labour and production arrangements. Television’s fragmented work culture meant there was little incentive for unit administrators to invest in computing infrastructure. Many staff worked on short-term series, moving between isolated program units and various locations. Administrators were not inclined to buy computers or train users for a show that would only run 10–12 weeks. The TV Science unit, with long running programs such as *Quantum*, was an exception to the rule (Allen interview, 1998). ABC Radio had a slightly more supportive structure for computing diffusion. Within the specialist
information network Radio National, for example, there was close co-operation between established, long-running program units and relatively stable specialist information production teams. This meant the science, history, current affairs documentary and women’s units, for example, were all using personal computers in the early 1990s.

From a socio-technical perspective the specialist program-makers of ABC TV and Radio fitted Roger’s (2003: 279ff) profile of early innovation adopters to a greater extent than the ABC’s news/talk program-makers, technocrats, administrators or managers. They had more extended interpersonal networks and were more demanding information seekers than other members of their social systems. Specialist broadcasting demands intensive research and the exposition of complex ideas (Williams, 1996). Through their ICT use, and contact with globally-mobile niche knowledge producers such as scientists and historians, the ABC’s specialist program-makers were quicker than other staff to realise the potential of networking their computers and accessing the Internet for research and communications.

MIS acknowledged the growing use of personal computers during the early 1990s but could not provide users with any consistent degree of technical support. Personal computing required different expertise to mainframe knowledge. Further, contrary to expectations, user-pays servicing had not resolved the ABC’s ICT budgetary problems. Buildings were not always wired for networking. Production units had not been provided with adequate funds to finance either VAX connections or personal computer networks enabling file sharing. When he wanted to set up a LAN for the Science Unit, Allen says MIS’s quotes were prohibitive:

Wal [Lyneham, head of MIS] said if you want to network the whole department you’re talking half a million dollars, and that just wasn’t an option…so what we did was just buy machines on a needs basis, and we used a local clone maker down the road who offered full support [for peer-to-peer networking]…I think the Science Unit had 10 or 12 computers connected, cable just ran around the walls. (Allen interview, 1998)

The LAN allowed sharing of story scripts and multiple user access to the database. Allen argues its successful collaborative applications changed corporate ideas about the use of decentralised, locally distributed networks (Allen interview 1998). MIS later designed and installed LANs in ABC TV’s *Four Corners* and *Investigators* production units, which became
models for other production environments (Dowling interview, 1999). This process mimicked the structural changes that which had taken place in academic and research sectors, where a distributed environment of personal computers, work group servers and specialised processors, such as databases, had all but replaced mainframe systems (Spurgeon, 1997: 159). Spurgeon argues that “the development of sophisticated local area computer network systems, and the falling real cost of personal computers were two factors contributing to the rapid expansion of the Internet” (Spurgeon, 1997: 152).

Allen’s innovations combined enterprise and ‘public service’ outcomes. In early 1992, when the TV Science Unit was making the series *A Question of Survival* he set up a dial-up TCP/IP account with the pioneering public access ISP Pegasus networks (see Peter, 2004). Allen argued online access arguably improved the ‘quality’ – currency, diversity and scope – of science broadcasting. For the cost of a local phone call, researchers were able to trawl Usenet scientific discussion groups, generating international story ideas unavailable via print sources, and securing interview talent (Allen interview, 1998).

ABC TV’s Science Unit was possibly the first ABC production team to connect to the Internet, but was quickly followed by ABC Radio Science. In response to a service inquiry from Radio’s Peter McEvoy, Pegasus Network’s Andrew Garton noted there had been “considerable discussion” amongst users about the need for RN’s schedules to be posted on their cafe.australia conference (Garton, 1992). Peter Hunt, presenter of Radio National’s first computing program, *Warm Boot*, then set up a Pegasus account with help from MIS’s Rob Garnsey (later an ABC Online technical coordinator). By 1993 copies of *Wired*, a seminal US technoculture magazine devoted to boosterist accounts of the Internet, were being passed from hand to hand throughout the ABC’s Ultimo centre accelerating the dissemination of knowledge about internetworking.17

Some program-makers had an aesthetic interest in using both the Internet and CD-ROM for delivering content. Radio National history broadcaster Stephen Rapley says he became aware of the creative possibilities of interactive multimedia through his research connections:

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The community of people we were dealing with, historians I’m talking about, were much more engaged with the technology and using...multimedia for presenting historical subjects. I suppose that’s where I really got excited about CD-ROMs and then the World Wide Web...I was driven by the promise of that type of technology – hypertext, hyperlinks, and being able to tell stories in a non-linear way – we all thought that was magic and wonderful and flexible and would attract new audiences, groups of people to your content. (Rapley interview, 1997)

Technate program-makers were able to function as disorganisational innovation elements within the ABC system, as they did in lobbying for the introduction of local area networks (LANs) and internetworking. While their interests were not anti-systemic, in that they were interested in enterprise outcomes and supported traditional concepts of service to the public, these program-makers did not share MIS’s concerns about networking. They queried its centralised practices and procedures, attempting to circumvent its control in order to further their own information values: quality, professionalism and pedagogy. Their struggles reflected broader institutional upheavals in media and communications fields as corporations sought to recover the costs of developing new information delivery technologies.

Internetworking and the information commodity

Spurgeon reports that by 1993 the number of AARNet end users had reached 400,000 and the service was moving from a network based purely on research data to one that offered a wide range of services to the general population, and was growing “at an extraordinary rate” (1997: 161). Its rapid growth provoked a crisis of control as what was essentially a private educational network tried to deliver backbone internet services on a public carrier model, and ran into serious technical, administrative and financial difficulties. Similar difficulties arose in the ABC as program-makers began to request MIS help in setting up internet access.

In late 1993 Stephen Rapley and Stan Correy from radio current affairs program Background Briefing, began to agitate for a planned approach to internet access. RN network editor Sue Spencer expressed interest in but wanted more information about costs and procedures (Correy interview, 1999). With a limited conceptual knowledge of the necessary technology, and unable to articulate their needs in information systems jargon, Rapley and Correy met with little help from MIS engineers:
[They] would always say “security, security, security – we can’t afford to open up the ABC network to the Internet, we'll be taken over by hackers within milliseconds”, and that was always the argument used to justify not doing anything. And because the technological knowledge was under the control of these engineers it was pretty hard for us to argue…short of actually getting people inside the IT areas to say “well no…there are provisions to protect yourselves” – which is obviously what we have now, but there was a lot of simplistic dismissal of those requests, partly because they were coming from program-makers and not managers. (Rapley interview, 1997)

In 1993, MIS was renamed the Information Technology (IT) department reflecting a move toward providing greater, and more efficient, service to both Radio and TV divisions (Dowling interview, 1999). It marked an expectation that IT would be instrumental in exploring internet access policies. Yet in IT’s terms the Internet was a radical innovation, that is, one that creates a high degree of uncertainty about its introduction, “indexed by the amount of knowledge that organisation members must acquire in order to adopt” (Rogers, 2003). As IT’s cultural focus was accounting systems and centralised processing, it had few staff familiar with the Internet’s distributed architecture and protocols:

There weren’t people in IT who’d actually had hands-on experience with it and that was a big problem, because they were sort of scared. They didn’t understand what they were dealing with so they ended up being more cautious and so on. (Garnsey interview, 1998)

Rob Garnsey said IT maintained a conservative approach to service management, insisting network access be limited in both directions. That is, MIS would limit outside access to internal networks and employee access to external networks until otherwise directed (Garnsey interview, 1998).

While network security was a valid concern, economic imperatives were at the heart of organisational resistance to the Internet. User-pays servicing had led to much argument over how internet services would be charged against divisional, and departmental, budgets. It was unclear who was responsible for installation, maintenance and upgrades to network infrastructure, or the costs of network usage. The disputes reflected the arguments that had
arisen during AARNet’s funding crises (Spurgeon, 1997: 173–4). It was the type of conflict that media historian Michael Tracey describes originating in the 1980s, when PSB executives had made their organisations “more efficient, leaner, constructed around process rather than human performance” (1998: 56). The danger was, as Tracey put it, “that the pursuit of efficiency becomes an end in itself, in which organisational process begins to substitute for organisational purpose” (p. 56).

Important as they were to the corporation’s informational development, these struggles were eclipsed by more public debates about the ABC’s commercial activities and the commodification of its content. From 1993, the ABC invested in three major commercial ventures, all of which failed within two years. Two were commercial broadcast ventures built on notions of cultural nationalism. The Australia Television International (ATVI) satellite service to South East Asia aimed to provide English speaking programming to “the decision makers and the emerging middle class” of Asia in order to strengthen Australia’s economic and cultural links with the region (Brown & Althaus, 1996: 43). It was projected as a self-funding operation (Burns, 1997) but never attracted the advertising, sponsorship or rebroadcast deals that would have made this possible.

Australian Information Media (AIM), was a fully commercial subscription TV joint venture project with Cox Communication and print publisher John Fairfax Ltd, which was to produce news and currents affairs, together with a hybrid children’s programming, drama, and documentary channel. AIM was to take existing ABC content, remove the branding, then repackage or redevelop and redistribute it. It also had editorial control over these processes. As it turned out, although the ABC had had pay TV on the drawing board for several years, and had received $12.5 million dollars towards the venture in federal government funding, AIM went ahead without securing a delivery system. In the face of competition from a rival venture between News Corp and Australian media mogul Kerry Packer, the AIM consortium lasted only a month before it collapsed in September 1995.

Despite managerial assurances that there would be a clear separation between these and free-to-air services, Dempster (2000) demonstrates that they intended to capitalise on existing free-to-air content production and that there was some state pressure to commodify ABC
audiences through sponsorship as an alternative to direct funding.\textsuperscript{18} Further, as the AIM negotiations progressed, Chair of the ABC Board Mark Armstrong was worried that ABC rights were going to be lost in “speculative arrangements” (Dempster, 2000: 127). As Dempster records these arrangements were widely debated, particularly AIM, which Armstrong said would be “a bridge to the developing broadband services” (2000: 123). It is also clear that resistance to the commodification of ABC content was another factor in some program-makers’ support for internet access and an internet publishing service. This became evident following the ABC’s third ill-fated commercial foray of the time – the development of a value added network called Broadcast News Australia.

Value added networks

In January 1994 the ABC launched Broadcast News Australia (BNA), a text-based VAN or ‘wire service’ marketing news copy and audio services to commercial media, other private enterprises, government departments and tertiary institutions. BNA was Radio News’s attempt to break Australian Associated Press’s (AAP) longstanding monopoly, and to further exploit the ABC’s intellectual property resources (Parliament of the Commonwealth of Australia, 1995). BNA staff rewrote ABC copy in commercial news style and distributed it via links to BASYS and then on externally through Telecom data lines.

Rather than the network adding value to ABC content, ABC journalists complained that the sense and accuracy of their stories was being lost in the re-purposing, as BNA staffers were not all trained journalists. Radio journalists were expected to file for BNA before their free-to-air commitments, and to file stories immediately rather than to radio bulletin deadlines. They protested about pressure to change their news agenda to fit commercial demands. Editorial compromises and questions about diversion of resources (both staff and funds) from free-to-air radio provoked great internal debate and, eventually, became the subject of a 1994 Senate Select Committee inquiry into the ABC’s broader revenue-raising activities.\textsuperscript{19}

The inquiry majority report found an “inherent tension” between commercialisation and the ABC’s Charter ideals (Parliament of the Commonwealth of Australia, 1995: 56), but did not

\textsuperscript{18} See also concerns about ATVI sponsorship (Craik and Davis, 1995: 127).

\textsuperscript{19} BNA’s business plan had not factored in AAP’s competitive retaliation (Burns, 2000a). It operated at a loss for the term of its existence, and closed in April 1995 unable to secure a viable number of clients.
deem it a necessarily “destructive tension, as long as the new services were not an end in themselves but brought some demonstrable benefit to the corporation”. However during the BNA inquiry, Stephen Rapley (later an ABC Online co-ordinator) says he was struck by the fear that, in an increasingly commercial environment, other program-makers were eventually going to lose editorial control over the use of their materials:

I was thinking, we’ve got a lot of this stuff, it’s fantastic value, it’s catalogued, it’s got clearances for copyright, everything’s under control with this stuff, it’s absolutely attractive content about Australia, and re-deployable in all sorts of ways to tell different stories about our past...and my sense was that the value was going to be identified before there was a local capacity to exploit that inside the ABC. (Rapley interview, 1997)

He argues that he and other radio feature-makers believed they had an obligation to their interviewees, and to the public, to supervise the ways in which that material might be used in the future. In this sense their opposition to commercialism was not an opposition to working with the commercial sector, or necessarily to the marketing of ABC content, but an ethical opposition to the editorial compromises built into commodification processes. It can be read as a form of resistance to the normative industrial commodification of self and subjectivity, where media workers sublimate or alter personal characteristics, attitudes and aesthetic propensities in order to improve their employment opportunities (Ursell, 2000). For those exemplary program-makers who had internalised an ethics of public service, the commodification of the ABC was not simply an attack on the practices of public broadcasting, but an assault on their own moral framework.

Rapley indicated that guaranteeing equitable public access to program material was also an issue. The ABC had abandoned providing program transcripts some years earlier due to the cost of preparation. Following the cutbacks to Radio Archives, only certain categories of programs were formally catalogued. Others were the responsibility of program-makers, and were stored in boxes and on shelves in various locations.20 Where sales of radio programs had been outsourced (2BL Sydney’s metropolitan radio station, for example, used Media

20 The archival selection categories were: the history and activities of the ABC, Australian history, world events and major achievements.
Monitors to supply tape copies) the retail price of the tapes was almost double that charged by the ABC’s Tape Sales department.

So although the ABC had for many years been engaging in commercial television distribution deals and marketing its wares in ABC shops the BNA venture, like the ABC’s other new partnerships and outsourcing arrangements, represented a new (if economically tenuous) level of commercialisation. Program-makers concerned about this trajectory rallied around the concept of a universally accessible broadcaster (Dempster, 2000: 116) – another element in the ethical bonds that contributed to a later disorganisational push for a web service.

The organisation’s commodity focus and the conservatism of its network operations appeared at odds with the rhetorics of information democracy propagated by internet enthusiasts at the time.21 These included the “strands of freedom” which David Marshall identifies as key to the expansion of the Internet (Marshall, 1997: 54) – an aversion to censorship, a concern with access and participation, and a celebration of hacking – and the Internet’s gift economy, where the value of an object was increased through its dispersal, as with free and sharewares (Kelly, 1997; McGee and Skageby, 2004).

To some program-makers these ideas were consonant with the ABC's public service éthos, sparking explorations of the Internet’s publishing potential (Ashelford interview, 1997). Colin Griffith, later head of ABC Online, would write that:

> There are interesting parallels between the culture of the internet and public service broadcasting. Some of the shared values include the free flow of information and ideas, the encouragement of a diversity of viewpoints and the pursuit of equity in the delivery of content. (Griffith, 1996: 52)

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21 Including those who misappropriated MIT Media Lab founder Steward Brand’s 1984 phrase “the information wants to be free”. A fuller quote attributed to Brand is ambiguous: “Information wants to be free – because it is now so easy to copy and distribute casually – and information wants to be expensive – because in an Information Age, nothing is so valuable as the right information at the right time” (Barlow, 1998).
But program-makers were also, pragmatically, concerned about the costs of moving to new computer publishing platforms. In early 1994, Rapley and Correy persuaded ABC Radio management’s Peter Loxton to fund research on how RN could become involved in interactive multimedia production. His report shows staff possessed diverse digital production skills and strong interest in the creative possibilities of non-linear story-telling but were pessimistic about their access to adequate computing and production resources, and daunted by the costs of re-purposing material for another medium. They were defensive about the importance of their free-to-air output, and troubled by multimedia’s association with “‘Enterprise’ culture where What Sells in America gets priority over controversial and challenging content” (Correy, 1995: 10).

Yet Correy’s report was not antagonistic to enterprise outcomes. It recommended that the Internet was a cheaper, more flexible method of publishing than CD-ROM and that the lack of integrated computer systems was a serious hurdle to new media development. It also proposed that staff should have both desktop computers and internet access in order to better understand the new information environment (Correy interview, 1999). Strategic policy would take two years or more to reach similar conclusions, as corporate and state agendas for multimedia industry development were focussed on the development of CD-ROM.

Interactive multimedia and CD-ROM

In the early to mid 1990s the term multimedia was attached to a shifting set of media products and services that integrated, to varying degrees, the delivery of video, audio, text and graphics. Multimedia production was widely discussed as the vehicle for new cultural forms (Barrett, 1992; Chesher, 1996; Davenport, 1996; Goldman-Segall, 1995; Murray, 1998) and CD-ROM, arcade games, Sega/Nintendo playstations and desktop publishing software were all claimed as part of the multimedia industry (Cutler and Company, 1994).

As such multimedia had a useful polyvalency. In industry contexts multimedia was a powerful signifier through its association with notions of convergence. Technical convergence assumed the interoperability of digital data forms and the possibility of re-purposing content for delivery on differing platforms. Industrial convergence concerned functional relationships and possible mergers between information processing, media content and carriage industries (Barr, 2000b; Turner and Cunningham, 2002). So multimedia, as a
discursive construct and discourse on digital media development, signalled an informational imperative to technological change.

Between 1993 and 1994 no less than five Commonwealth reports would be commissioned on multimedia content or industry development (BSEG, 1994, 1995; Commonwealth of Australia, 1994; Coopers and Lybrand, 1995; Cutler and Company, 1994). They focussed on enterprise objectives: current markets for CD-ROM production and the longer term potential for broadband services. In doing so they underplayed what program-makers had identified: the communicative possibilities of the narrowband Internet.

In July 1993 the head of ABC Strategic Policy Unit, Rosemary Sinclair, outlined the organisation’s interest in multimedia to division heads (Sinclair, 1993). The ABC, she argued had “core capabilities” it could capitalise on in its established creative production skills and reuseable content. Her findings resonated with Julie Steiner, head of ABC Enterprises. In 1993 Steiner had been searching for new ways in which the ABC could “exploit” its intellectual property resources (Steiner interview, 1999). ABC Enterprises was responsible for developing, licensing and releasing a wide range of ABC program-related product. It encompassed discrete marketing sections such as ABC Books and ABC Records. Steiner recognised CD-ROM as a marketing opportunity partly as it could be sold in units, much like the books and video games it was touted to replace.

CD-ROM development was a major objective of the Keating Labor Government’s Creative Nation policy, Australia’s first national statement on cultural industries – that is, it meshed arts, cultural and economic policy with a specific interest in industry development (Flew and May, 1999). The policy allocated $84 million over four years to establish industry development centres and content production initiatives, as first steps in globally positioning Australian cultural product. It suggested that the ability to create best-seller CD-ROM titles would be critical to later success in the “PC on-line narrowband market, and later on in the interactive PC and broadband television market” (Commonwealth of Australia, 1994: 57).

One of the Creative Nation funding initiatives, the Australia on CD program involved commissioning material from major cultural institutions. $6.9 million was allocated for ten titles based on Australian cultural themes.

22 Sinclair had just attended the annual Montreux international broadcasting conference, which had offered a special stream for the first time on multimedia.
Creative Nation was an initial disappointment for the ABC. It was not singled out, like several other cultural institutions, for development funding. Instead, following the launch of the policy statement, Steiner established ABC New Media under the Enterprises banner in order for commercial investors to partner the ABC in collaborative multimedia projects. It was imagined that private sector capital outlay would initially fund New Media projects, while the ABC provided the creative/intellectual skills and editorial guidance to shape the content. So the ABC’s organisational focus was initially on CD-ROM development.

Ben Cardillo and Product Development Manager Jan Zwar were brought in to provide private enterprise and policy expertise in the multimedia field. They sought collaborators with ideas for CD-ROM production, and would then assemble creative teams on a project by project basis. The long-term brief was for the unit to become self-funding. Numbers of developers approached the unit with proposals for CD-ROMs. Zwar says only those with a strong business case were considered (Zwar interview, 1999). The most successful early example was a 1994 remake of the best selling TV series The Bush Tucker Man. Patrick Martin of Natural Learning, an Australian multimedia production company, licensed the development rights. ABC TV staff provided production and design expertise, together with advice on copyright clearances and overseas program sales of the original series (Pollard, 1996).

While multimedia figured as a new enterprise object, one unburdened by regulatory restrictions, there was a sense of uncertainty in industry forums about which technologies would prove to be the best investment: packaged or online. A 1994 industry report on “emerging interactive multimedia opportunities”, Content in Commerce (Cutler and Company, 1994), typified the dilemma and its locus in a sectional understanding of online media capacities. Produced for the Department of Industry, Science and Technology (DIST) the report described CD-ROM production as the “near term driver” of industry development (although this would be proved wrong within a year). Sales figures for CD-ROM drives and titles figure prominently. Only in reference to the education sector does a note appear that “the major interest could be in information discovery based upon newer technologies...and informal collaboration in the Internet manner” (Cutler & Company, 1994: online).

A business case for online publishing had not been established. North American and Australian companies had already been burnt by earlier online revolutions, such as the failure of Videotex (Kyrish, 1996). Videotex’s proprietary successors, America Online and
Compuserve, had performed only modestly in the early 90s. Prodigy lost over $1 billion by 1993. Meanwhile despite its growing public profile, the public Internet was popularly depicted as anarchic and labyrinthine (Sterling, 1993), home to nerds, outlaws and hippies (Golding, 1998). ABC executives conceivably found it difficult to equate the Internet with enterprise gains until Microsoft made them an unexpected partnership offer. Its Microsoft Network was a desirable enterprise partner with a potentially global reach.

Microsoft network

In early 1994, Bill Gates established Microsoft Network (MSN) a proprietary service which promised a “superhighway” environment for its users: “greater ease of use” than the Internet, better security for information flow and richer production values (ABC Multimedia, 1995: 3–4). In Australia, On-Australia, a $9 million joint venture between Microsoft and Telstra, was to be the local MSN portal. In mid 1994, at a meeting arranged by Gary Suprain, head of ABC Radio Marketing, Microsoft’s Daniel Petrie told the head of Radio National, Peter Manning, that MSN wanted to link to RN web content. Microsoft wanted to use the ABC’s reputation to enhance the local credibility of its new online service and operating system. The MSN graphical user interface (GUI) was due to be bundled with Windows 95 for an August 1995 launch.

RN in turn wanted to increase its audience. Despite being a national service, in 1993 its average weekly share of audience was 1.9 per cent, and in 1994, 2.1 per cent.23 RN managers had a small marketing budget and were keen to grasp any chance of promoting the network. RN had long been under attack for elitism and waste (Davis, 1988; Inglis 2006). Less trenchant critics observed an inflexibility and lack of diversity in its scheduling, content and presentation (Molnar, 1997). Every round of budget cuts brought threats of RN’s imminent demise, or absorption into another network.24

Under the MSN proposal outlined finally in April of 1995 Radio National was offered brand exposure to a potential 50 million Windows users and an upgraded online presence. Real

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23 These are ABC Audience Research combined figures for Sydney, Melbourne, Brisbane, Adelaide and Perth. Corresponding figures for weekly cumulative audience show 658,000 listeners per week in 1993 and 696,000 in 1994.

24 The 1996 draft plan for merging Radio networks indicated RN would be integrated with Classic FM or the Local Radio network (Loxton, 1996).
client base figures were less impressive – an estimated 3 million Australians, of which only 112,000 were thought to be online at that time. Still, Windows was the predominant computing platform, expanding rapidly and even proposing access for Macintosh users. Hyperlinks from MSN’s information categories would take users to the “Radio National Forum”, with links to individual program sites. Content would include current and archived program material, a bulletin board, live-chat sessions and email access to specialist guests and program-makers (ABC Radio National Marketing, 1995: 10). MSN proposed that RN charge for setting up “conferences” with industry specialists “outside normal station programming” in the same way it charged for hiring out production studios (p. 9).

Program-makers were ambivalent about MSN’s proprietary attitude, the secrecy of the negotiations, the alliance with large anti-competitive forces and the possibility of subsidising a private venture (Burns, 2003: 142–45). Stephen Rapley, later appointed the forum manager, argued it was all very well to extend RN online content free-of-charge in return for advertising and audience share, but Microsoft did not provide any detailed marketing information about its users. Thomas Ashelford, an independent website developer on a concurrent project, also questioned the ability of an artificially manufactured network to match the Internet’s spontaneous growth and diversity (Ashelford interview, 1997).

Despite these concerns, Rapley said it was important to explore the possibilities of a public/private relationship as it seemed unlikely that anyone within the ABC was going to give RN a large amount of money for interactive multimedia development. He and Colin Griffith, a senior policy adviser from Strategic Development, collaborated with others from Enterprise and TR&D to write a briefing paper for the ABC Board persuading it to endorse the MSN proposal, and approve a new multimedia project coordination unit and ABC internet publishing strategy. The proposal makes a clear enterprise case for the latter:

The advantage of the ABC having its own internet service is that the Corporation will have complete editorial and management control over the presentation of eventual charging policies for information and services (Griffith and Rapley, 1995: 7).

Both ABC executives and program-makers worked together on negotiating questions of online information access. In the MSN trial negotiations the ABC had argued successfully it
must have editorial control over its content and be able to “develop its on-line capabilities and expertise without being limited exclusively to Microsoft” (ABC Radio National Marketing, 1995: 10). However Microsoft had developed its own programming tool, ‘Blackbird’, as an alternative to existing open standard web protocols, such as HTML. Blackbird, as the Wall Street Journal reported, was “designed to help independent companies create proprietary information content for MSN, and originally was seen as a key weapon against competing online services” (Clark, 1996). Rapley, having seen that the ABC may launch its own service, created RN content using both open web standards and Blackbird. His decision to support a non-proprietary format was prescient. ABC content would attract little interest on On-Australia and Microsoft’s Telstra alliance would later collapse, leaving many smaller developers out of pocket.

After the launch many of the companies recruited by Microsoft to create content for MSN had “posted complaints on the service about technical glitches, a shortage of information from Microsoft management and other problems” (Clark, 1996). Rapley said in the six months of RN’s link to MSN, it received only eight emails from MSN users, several of which were from other content developers. The lack of response left him feeling “so remote...it was like being in a new shopping centre with no roads built to it” (Rapley interview 1999). Microsoft’s decision to drop the Blackbird project was the beginning of the end. By February 1996 On-Australia had folded. Telstra and Microsoft parted ways “to concentrate on their specialist areas – Telstra on Internet access and Microsoft on the content side of the business.” (Enterprise Information Management, 1996: 1).

Despite that, Rapley claims the importance of the MSN project cannot be underestimated. Without it, he says, the development of ABC Online would have been considerably slower. It was an invaluable chance to observe the world's biggest digital player negotiating internet development, to explore corporate positions on public versus proprietary access, and to negotiate with other potentially disorganisational influences – extra-institutional players in communications technology markets:

We were dealing not only with Microsoft, who were very good to deal with, very clear and business-like, if a little uncertain about delivery dates and things...but the more interesting people we were dealing with were these “solution providers”...third party developers, graphics houses, agencies whatever...and that
was a real eye opener for me...to suddenly be dealing with these people from an absolutely...of a different culture, different language and priorities, business sense and motivations. (Rapley interview, 1997)

The World Wide Web

By the end of 1994, the web was about to enter its commercial phase (Finn, 2000; Goggin, 2004). *The Sydney Morning Herald* newspaper had been running a computing website designed by Thomas Ashelford, and Fairfax, its parent company, was looking to launch a web service by August of 1995. So there was competitive pressure on the ABC to move online. David Hill, however, was under siege from state, public and corporation over his commercial ventures and structural reforms. He resigned in November, leaving the fate of internet publishing in the hands of his deputy, Peter Lidbetter.

ABC head of IT, Wal Lyneham, was keen to have control over the new service (Griffith interview, 1997). Instead IT was directed to work with Strategic Development on an infrastructure strategy. Its “Internet Project” report recommends that the ABC “use The Internet [sic] services to improve business methods or create new business opportunities” and “ensure that the IT implementation of Internet [sic] is value for money for the ABC users” (ABC Information Technology, 1994: 2). IT suggested it could have a web service up by June 1995. In February 1995 the ABC board approved the proposal for a trial online service, which was due to be launched later that year. However program-makers were some steps ahead with pedagogic objectives driving their endeavours.

Ian Allen had earlier secured permission to publish a trial website offering support information for the second series of ABC TV’s *Hot Chips* series, a popular introduction to computers and internetworking. At the time pressure was mounting in the Radio division for other programs to go online, and Allen said some executives were worried about creating the expectation of a completely new ABC network. He persuasively argued that the site, <http://www.abc.net.au/hotchips/>, would give the series more “credibility”, but believed it was approved because it would only be online for the ten week series run (Allen interview, 1998). Launched in May 1995, the *Hot Chips* website joined the BBC’s *The Big Byte* site as a global forerunner of online content which complemented TV programming. Allen estimated
the site garnered about 20,000 hits in the first few days, generated by 4–5,000 audience members, and indicated the communicative benefits were clear:

Most people were saying “great show” but then we also had people writing in with suggestions for story ideas, and generally we found the quality of the email really rewarding and thoughtful and helpful, and it was great to get such quick feedback. The other thing that happened was the amount of office time spent on enquiries...we had hardly any requests for further information because we put it all there. (Allen interview 1998)

One of the first emails to arrive was from Brian Ridgway at ABC TV in Adelaide. He announced that Behind The News (BTN), a weekly news and current affairs show targeted at upper primary and lower secondary students, had been running a website since March 1995. Ridgway, a manager of ABC TV technical services, was a home user of internet services. He considered that as a “technologist”, his role was to enable ABC producers to more widely disseminate their content (Ridgway interview, 1998). He also built the BTN site with the program’s executive producer Richard Hunn in order to publish transcripts and educational material of interest to the large number of teachers in their audience.

Lacking an Ethernet connection via the ABC network, Hunn and Ridgway set up an ordinary Ozemail dial-up account through the ABC’s PABX switch. They manually converted their BASYS formatted scripts into Word documents, and uploaded this material to the site via Hunn’s laptop. Although they hadn’t advertised BTN’s web presence, being concerned there was no corporate policy on online content, their audience found the site through search engines and word of mouth. It was accessible from the Australian Computer Society’s Australia This Minute site, a project designed to document Australian web culture, as a supplement to the Australia on CD initiative. BTN was soon receiving up to 400 accesses a week from students and teachers.

25 The Oxford English Dictionary (OED, 1989: 705) suggests technologist is a mid-19th century term with an apposite duality of meaning: one who studies the arts and manufacturing, and one who is “versed in technology”.

Meanwhile, Thomas Ashelford had been working on an online version of youth radio Triple J’s J-mag. He’d been brought in because his music website Wood and Wire had successfully targeted the Triple J audience of fifteen to thirty year olds. Ashelford believed his focus on the design and use of web content was innovative in terms of communicating with users:

The web was still being looked at as a way of distributing information – data – a bit like teletext. Something the ABC might get involved with as a sideline, as an information service. What I was interested in was taking it beyond information, really talking about online culture and using the Internet as a mass medium…Creating an online community is also one of the ideas I was sort of pushing at that time…and that’s one of the things that I’d done with this music site…and was the key to its success (Ashelford interview, 1997)

On 30th June 1995, the night before the ABC’s new Multimedia Unit was launched, Ashelford was asked to guide a cross-divisional meeting in the depths of the ABC’s Sydney Ultimo headquarters. Fifty people from across the ABC – IT, archives and content areas – gathered to discuss the corporation’s involvement in multimedia. Ashelford remembers the assembly as oddly democratic, in light of his later experiences of the corporation:

You don’t see that sort of thing in the ABC, with people from TV and Radio all sitting round basically saying “we all know we should do something – what should we do?” (Ashelford interview, 1997)

That meeting formulated guidelines for a new online service, amongst them that program websites should be autonomous, retaining the editorial integrity of their originating area. ABC Multimedia was to coordinate these activities and build a web service. So the unformed but potent notion of multimedia was to serve as a locus for a very different type of network than those imagined by Long and Smith in 1992 – a computer mediated field of digital experimentation, interactive communication and public access information flows.
Conclusion

There are many ways of unpacking the reasons why the ABC adopted interactive media during this period. A linear, determinist history might suggest it was a result of the ABC’s narrowcast ambitions. Senior executives had declared their ambition to experiment with new media services in the hope of better targeting audiences (an argument for improved funding) and developing additional income streams. They had cultivated various arrangements of technical expertise, invested in ICT infrastructure and responded rapidly to industry developments and government policy research.

A genealogical approach, analysing technocultures, discourses and interactions around ICT change, reveals more complex struggles at the heart of technological diffusion, including the centralisation of technical power and its divorce from creative processes. During this period structured change, of the type most often chronicled in diffusion studies, tended to replicate existing managerial and technical discourses, reinforcing institutional divisions. It isolated some areas and actors from access to the new tools, and privileged others.

Managers, broadcast technicians, and information technology staff were all administrative users of the ABC’s information networks, and all potentially exemplary in that use. However program-makers are imagined here as a distinct technoculture, which used information networks for both administrative and aesthetic-creative communicative purposes, and thus had a different lived ethical relationship to these technologies. Further some program-makers early attempts to get internet access and set up websites are disorganisational in that they form loose coalitions that disrupt and de-legitimate the ABC’s policy focus, and involve extra-institutional, unsecure network relations with ISPs and users.

In the birth of ABC Online innovative program-makers collaborated as a disorganisational force. They took up the Internet because of their shared belief in its utility and (in some cases) its potential to facilitate values they saw threatened by bureaucracy and commercialisation. Their ideas about distributed networking came largely from outside the organisation. Their actions were often illegitimate and anti-hierarchical. But their agency was not anti systemic. They emerged from a threatened social form, as Lash suggests in his ideation of disorganisations, but to prefigure and drive its transformation.
Technate program-makers valued technology for its utilitarian and aesthetic potentials, and incorporated these beliefs into their exemplary ethics. They equated being technate with being professional and with their duty of pastoral care to their audiences (online users would later emerge as a new population to be governed, although they were a relatively small group in 1995). Program-makers’ computing innovations improved the ABC’s creative productivity and extended its communicative relations, thus supporting institutional renewal and the success of the ABC’s informational strategy. Where these exemplars resisted centralised control or procedural norms, they rationalised their actions as securing both enterprise and public service gains. In Burns’s (2003) accounts the Internet-savvy staff agitating for ABC Online are molecular forces in continual tension with the molar norm of hierarchy and executive control. In these accounts they are simultaneously organisational (invoking Reithian and neo-liberal enterprise ethics) and disorganisational (acting as a force for technocultural change).

The ABC’s enterprise agenda directly and indirectly affected decisions to adopt interactive multimedia publishing. Government policy and industry trends influenced CD-ROM development. CD-ROM was a recognised commodity with an emerging market. It seemed to offer the ABC further economic benefit in terms of collaboration and funding opportunities. As a result the birth of CD-ROM publishing was a rapid ‘top down’ process, instituted to solve organisational problems and centrally contained within the ABC’s structure. Interest in the Internet developed more diffusely, via the technocracy’s failure to serve program-maker needs, the incorporation of external internetworking expertise and program-maker interest in the internet’s pedagogical potential.

ABC Online was created at the point where diverse internet experiments had demonstrated that web publishing could possibly reconcile enterprise objectives with public service values. Without the MSN bid, and even with the rapid commercialisation of the web, it is unlikely that the executive would have pushed along the establishment of a publishing trial as quickly as they did. And yet more structured approach to web publishing may have led to another centralised service: a commercial ABC Online, under the aegis of ABC Enterprises, or a more utilitarian, text-only service in the hands of ABC IT. Instead diverse experience and resources were drawn together from across the corporation to operate conditionally under the banner of ABC Multimedia.
As Chapter three indicates, ABC Multimedia would continue to function disorganisationally for several years, promoting an ad hoc growth of web publishing across the corporation. Its staff and collaborators would try to shift the ABC’s network priorities away from a Fordist model of broadcasting, centralised information flows, technological control, audiences and reception, and towards distributed networking, connectivity, decentralised production, users and interactivity. Their operations would be held up as a model for the ABC’s informational operations in its quest to realise a new enterprise discourse, convergence.
Chapter 3


…the history of broadcasting institutions shows very clearly that the institutions and social policies which get established in a formative, innovative stage – often ad hoc and piecemeal in a confused and seemingly marginal area – have extraordinary persistence into later periods... (Williams, 1990: 141)

There is a kind of twisting dialectic involved in the information society. It moves from order to disorder to new order. (Lash, 2002: 4)

Even as the ABC’s Multimedia unit was launched, on 1st July 1995, the organisation was not committed to web publishing. Yet the level of commercial interest in both CD-ROM and the web was such that the ABC executive agreed to pursue multimedia development as a competitive, speculative exercise. This chapter considers how that exercise moved from experiment to institutionalisation, from disorder to new order, altering the way the corporation operated.

It will demonstrate that although ABC New Media (the ABC Enterprises development unit) and ABC Online failed to make money, web publishing was expanded because of the service’s unexpected combination of enterprise and pedagogical qualities. Web publishing diffused through the corporation, provided a contentious model for reshaping its internal and external relations and began to alter its policy direction. Websites were informational in that they helped extend, organise and speed up information flows, increasing the organisation’s ability to circulate culture at a distance and address the conditions of informational change. Importantly ABC Online appeared to reach new audiences and to allow useful forms of interaction with them.
ABC Online was not envisaged as a third publishing arm of the corporation and yet, in the ad-hoc fashion that Raymond Williams (1990) above outlines, the web emerged as digital television’s lumpen surrogate. In the absence of clear government policy on new television services, multimedia services became the domain for exploring abstract notions of a digital communications future.

This chapter outlines the discursive assumptions underpinning the ABC’s corporate agenda for interactive multimedia: competition and convergence. It contrasts managerial rhetorics of digital transformation with the disorganisational process of multimedia development. It then documents innovative outcomes from the ABC Online experiment that provided a governmental map for the restructuring of an informational ABC. Finally it indicates why the ABC would institutionalise its multimedia experiment in the face of internal resistance and political ambivalence.

The multimedia experiment

Board approval of ABC New Media, and subsequently of a new Multimedia Unit (MMU) and ABC Online service, anticipated multimedia forms would generate revenue if the products or services proved successful (Griffith interview, 1998). Yet Colin Griffith, later head of the MMU, argued that multimedia activities were presented primarily as a low cost, in-house integrated marketing and audience development strategy, the antithesis of ABC TV’s expensive and troubled commercial ventures – in particular the AIM subscription television company:

Pay TV was seen as something apart from the ABC. [AIM] was set up as a subsidiary company, it was a fully commercial activity and it would do it through commercial partnerships with Fairfax and other parties, and it was seen that they would take material from the ABC, repackage it, develop their own content, and distribute it and it wasn’t even to be done under ABC branding…

Multimedia was an integral part of the ABC. We weren’t trying to sell this as a commercial venture. This was an extension of public broadcasting, this was a free-to-air service, this was about extending the value and life of our programming, less than this is a commercial opportunity…I mean half the reason
AIM was sunk was because there was enormous staff opposition – staff didn’t feel part of it, they felt their content was being taken out of their hands and being used by other people and they weren’t being compensated for it or acknowledged… whereas with multimedia what we’re trying to do here…is give the tools and the production process back to the production areas. (Griffith interview, 1997)

Multimedia was also imagined as a vehicle for uniting the TV and Radio production silos of the corporation (Manning, 1995). During the early years of multimedia production the abstract notion of ‘convergence’ operated as a discursive construct for re-imagining the ABC’s organisational structure and operations in a digital domain. CD-ROM production however did not extend much beyond discrete commercial collaborations. In contrast ABC Online’s operation across the corporation, with many work units contributing content and staff time to online publication, was eventually proposed as a model for digital production.

The ABC’s new Multimedia Unit was launched just as the web became the focus of increasing commercial activity. A web domain had become a desirable business investment (Finn, 2000). Shopping malls had arrived online (Hobbes, 1999), together with large corporations such as Volvo and Encyclopedia Britannica (Petre and Harrington, 1996). The US National Science Foundation had stopped funding the Internet ‘backbone’, and all traffic was routed through commercial networks (Hinton, 1999; Clarke 2004). Registration of domain names was no longer free (Hobbes, 1999). Compuserve, America Online (AOL) and Prodigy began to provide Internet access to their subscribers. Netscape Communications, the successor to Marc Andreessen’s Mosaic project, led a number of online companies in launching public share floats. The Massachusetts Institute of Technology estimated that commercial sites represented only 4.6 per cent of all websites in 1993, but 50 per cent by early 1996 (Golding, 1998: 137).

While commercial interest in the Internet had accelerated, the gloss had begun to wear off CD-ROM production. The *Australian Business Monthly* noted that CD-ROM production costs had “escalated rapidly from $200,000 to half a million per title, and rising” while entry into online multimedia was “relatively inexpensive” (Bowes, 1995: 126). In their *Excellence in

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1 *Hobbes’ Internet Timeline*, cited here several times, is a collaborative online resource with a comprehensive Internet bibliography. Other evolving internet histories include Roger Clarke’s Australian version (Clarke, 2004b: online) and Bill Stewart’s Living Internet (Stewart, 2005: online).
Commerce report to the Department of Science Industry and Technology (DIST), Coopers and Lybrand suggested some developers were spending up to $5 million per title (Coopers and Lybrand, 1995) but returns on those investments were not living up to expectations. Fortune Magazine indicated by January 1996 that only about 6 per cent of the approximately 3,500 CD-ROM titles on the U.S. market had made a profit (Martin, 1996).

Unlike the BBC or Australian media competitors Publishing and Broadcasting Limited and John Fairfax, the ABC did not set up a separate, well-funded digital publishing division to explore this new environment. Its recently appointed managing director, Brian Johns, gave the head of the MMU, Peter Manning, a budget of just $750,000, a personal assistant, and less than six months to explore the production, skills and infrastructure demands, policy directions and economic implications of interactive multimedia publishing (Manning, 1995).

Yet Brian Johns, a former journalist, publisher, and head of the Special Broadcasting Service (SBS), was a crucial backer of the multimedia experiment. On his arrival at the ABC he was described as a reformer and nationalist, passionate about nurturing creative endeavour and, through it, an Australian cultural identity (Loane and Lecky, 1995; Korporaal, 1995). Former chair Professor Mark Armstrong, says Johns’s arrival was greeted with relief, an indicator that the ABC would return to its role as a cultural institution (Armstrong interview, 1999). Johns also brought to the ABC an appreciation of the policy environment surrounding multimedia services. He had been chair of the Australian Broadcasting Authority (ABA) from 1992–1995 and head of the Broadband Services Expert Group (BSEG).

According to Griffith, Johns was not committed to creating an ABC multimedia service. He was already considering a complete corporate restructure in his early days as managing director, and his approach to multimedia was very much sink or swim: “we’re just exploring this...and we’ll see where it might fit into a new structure” (Griffith interview, 1997). Burns (2003) argues persuasively that in public policy terms between 1995 and 2000 ABC Online was a marginalised activity and outside the Corporation’s Charter. But while ABC Online remained absent from the legal documentation enframing the ABC’s role, it was present in other genres of corporate communicative activity. For example Johns promoted the new web service positively in speeches and in government hearings (Johns, 1996a, 1996b, 1998, 1998a, 2000; ABC Corporate, 1999b). He sought more money for multimedia in both 1997 and 2000 triennial funding submissions. Corporate media releases celebrated ABC Online winning best
media website five years running at the Australian Financial Review/Telstra Australian Internet awards.

Johns spoke of multimedia as an innovative delivery form (Johns, 1996b) and later as a test bed for digital production and technical convergence. By 1999 he would tell a Senate Estimates Committee hearing:

ABC Online is the gateway to the future of digital communication for Australian audiences and ABC staff.

The internet is the first service with the true ability to provide text, data, sound, image and interactivity. From 2001 that capability will be available via television. With the introduction of digital broadcasting these traditional media services will meld. That is convergence. The government knows that. The Minister for Communications, Information Technology and the Arts knows it. (ABC Corporate, 1999b)

This ongoing support was politically important after David Hill’s costly, and ill-fated, empire building. Hill’s ventures had convinced the Labor federal government that the ABC had gone too far beyond its traditional role and needed to be reined in (Griffith interview, 1997). This meant ABC executives took a more cautious approach to multimedia investment than that adopted in the commercial sector.

The New Media unit in ABC Enterprises was to coordinate marketable CD-ROM projects. The MMU took an editorial/production co-ordination role in other projects, helping program-makers develop and maintain their own websites and to create their own CD-ROM material (Griffith interview, 1997). The decentralised, localised, and internal nature of the latter approach minimised funding and staff requirements:

I think people were very aware of not talking up some kind of proposal that looked like another expansionary move...The language was more modest, it was an incremental activity, it wouldn’t involve getting into bed with commercial partners, or it wouldn’t involve trying to broadcast to two thirds of the world’s population in Asia. (Griffith interview, 1997)
Nevertheless in early managerial rhetoric, multimedia figures most obviously as a competitive strategy. The ABC’s corporate communications exhibit an exaggerated rather than pragmatic assessment of CD-ROM or the web’s commercial potential, and a concern with an international rather than local market.

Competition

ABC Online, launched on 14th August 1995, was mainly composed of those websites already developed by technate program-makers e.g. *Hot Chips/Quantum* (Figure 2), *Behind the News* (Figure 3) and Triple J (Figure 4).² There was also a new presence for Radio Australia, information on ABC Enterprises and an About the ABC corporate site. Ashelford and Manning had pulled ABC Online together quickly, partly in an attempt to establish an integrated corporate online presence to match John Fairfax Ltd’s new web venture *f2* as it was later known. By the launch though local competition appeared less important than attracting international attention.³ The ABC homepage proclaimed excitedly “Australia’s independent public broadcaster goes Global…” (Figure 1). In a media release Johns declared the ABC would be “launching these services into a global environment, where it is expected that over half the users will be from overseas” (ABC Corporate, 1995: 1). At the same time he carefully restated the corporation’s historic role in cultural nationalism: the “involvement in multimedia was essential to establish and protect Australian content” (p. 1).

This was an optimistic vision of ABC Online’s possible impact. Within the first month of operation 80 per cent of ‘hits’ or site visits came from within Australia (ABC Multimedia, 1995c). Netscape nominated Triple J site as one of its worldwide ‘cool sites’, but more generally ABC Online could not compete with established, well marketed and subscribed services such as America Online or the BBC’s globally recognised news brand. By 1996 only 10% of all ABC accesses had come from overseas (Hunder, 1996). Niche publications such as Geekgirl, a popular e-zine, or those promoting saleable Australian cultural product (Mambo clothing and Lonely Planet travel guides) were judged more likely to capture “a substantial global audience”(Petre and Harrington, 1996: 154).

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² As these pages appear not be available in HTML they have been reproduced from ABC Archive photocopies.
³ Though the service was not projected in a May strategic policy survey of the ABC’s international activities and cultural exports (Powell, Sinclair and Smith, 1995).
Figure removed due to copyright restrictions
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Peter Manning, was seconded to head the MMU from his job as head of Radio National. In mid 1995 online services were growing exponentially and CD-ROM markets were less dynamic, but Griffith said “Peter was very much of the view that we don’t know which one’s going to win, [so] we need to be into both, and we need to put resources into both” (Griffith interview, 1997). Within weeks of his appointment Manning hired two industry consultants: Thomas Ashelford who was to develop ABC Online, and Andre Colbert. Colbert, who had been producing interactive information systems in the US since 1986 and had worked on the initial *Australia on CD* proposals with Garner McLennan films, was to specialise in CD-ROM and packaged multimedia development.

Enterprise goals figured highly in Manning’s report of September 1995, *ABC 2000 and Multimedia*. Here he outlined the “fundamental values”, or “core Reithian issues” which the ABC would bring to its multimedia production (Manning, 1995a: 1), but then alluded to the “new ways of thinking and operating” that the corporation would face: “the role of subscription as a possible means of funding; its connection to the other sectors of this converging industry; and the balance between information and entertainment values in its output” (p. 2). The ABC, he suggested might have different relationships with “home computer users as against children in schools or the CBD professionals of Melbourne”, depending on differing “funding/cost/price environments” (p. 2). He made no mention of the difficulties experienced by commercial businesses attempting to make a profit from their online operations or their CD-ROM productions. 4 There is no market analysis, although this would have been difficult as internet use measurement was in its infancy.

Yet in June industry analysts had already called into question ABC New Media’s brief to produce commercially viable CD-ROM projects. *Excellence in Content*, a government report on multimedia investment asserted that “other than the games or entertainment sector there is no confidence that any other [CD-ROM] demand sector would enjoy global mass market acceptance” (Coopers and Lybrand, 1995: online). *Bananas in Pyjamas* was the ABC’s only truly global entertainment property, and beyond that Andre Colbert believed ABC CD-ROMs would be better financed and custom-built for specific markets, such as education and training (Colbert interview, 1997). 5 The children’s program *Playschool* had been a target of several

4 Forrester Research would report in 1996 that “the average commercial website cost $2 million dollars a year (and was losing $1 million annually)” (Herman and McChesney, 1997: 124).

5 See McIntosh, 1997 for news coverage of the *Bananas* international marketing.
CD-ROM proposals, but the show was not broadcast outside Australia and so was not considered marketable (Zwar interview, 1998).

Media studies researcher Peter White later proposed that a major flaw of both Australian industry reports on multimedia, and resultant government development strategies, was their failure to investigate the limitations of CD-ROM distribution markets (White, 1996: 8). By 1996 *The Economist Review* indicated that even “media giants, from Time Warner to Hearst and Turner Broadcasting” were pulling out of CD-ROM after “disappointing sales” (Anon, 1996a: 12). For small players it stated, “the CD-ROM business was becoming a choice between three destinations: consolidation, the net or the bankruptcy courts” (p. 12).

The ABC was still committed to CD-ROM production into 1996, when the *Bush Tucker Man* project was finally released, selling 4,000 copies in three months. However it was agreed that subsequent production budgets would be reliant on external funding sources such as co-producers, government funding schemes and/or distributors (Griffith, 1996). ABC Enterprises took steerage of those projects, while the MMU acted as creative co-ordinator. New Media was successful in round 2 of the *Australia on CD* grant program with *Real Wild Child*, a history of popular music and youth culture in Australia, produced in a consortium with the Powerhouse Museum, Pacific Advanced Media and Mushroom Pictures. ABC Science units were also funded for *Ingenious*, a scientific problem solving game for eight to fourteen year olds, produced with Questacon (the National Science and Technology Centre in Canberra) and Radiant, a multimedia development company.

The resulting CD-ROMs later won an impressive number of awards for their use of the medium, but were not a commercial success. Ian Allen estimates *Ingenious* cost $900,000 including in-kind facilities and services, but only had a budget of $650,000 fully funded:

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6 In 1997 *Real Wild Child!* won seven Australian International Multimedia Industry Association (AIMIA) awards including best overall multimedia/online product of the year. In 1997 *Ingenious* won an Australian Teachers of Media (ATOM) award for best educational multimedia product. In 1998 it would win AIMIA’s best game, entertainment site or title award.
...there’s no way you’d ever make that much money back if you were doing it as a commercial operation. It’s too expensive, it’s not easy to do. The standards that you have to meet are very high because you’re competing with the best in the world, but you don’t have a global market to recoup your costs. It’s just like the film industry was. CD-ROM was always going to be an American dominated medium, whereas the Internet, no. (Allen interview, 1997)

Thomas Ashelford estimated that within six months of the MMU’s establishment, its production focus had shifted from 50/50 online and CD-ROM production to 95/5 in favour of online services (Ashelford interview, 1997). Although a web business model was not apparent, page access figures continued to rise rapidly from 1995 onwards. This indicator of market demand, together with growing commercial interest in web domains and online publishing suggested the web was developing a more mature media profile.7

Yet the MMU had no clear blueprint for web publishing in its first year. Instead it acted as a disorganisational presence within the ABC. Disorganisations, as Scott Lash describes them, “have little to do with power resources residing in legitimate consecrated class or status groups, or in the means of production” (Lash, 2002: 40). Instead they produce, he argues, persuasive values. Without funding or access to content, the experimental MMU instead agitated at all levels of the corporation for greater investment in the idea of an online ABC.

Disorganisational development

According to Ashelford decisions about which content sectors were represented on the early ABC Online were “almost totally opportunistic” (Ashelford interview, 1997):

80 per cent of what’s up there has been the MMU coasting on individuals’ enthusiasm and that idea of [saying]: You’re keen to do it? Great, go for it, we’re right behind you, and let us know if there’s any way we can help you, and we’ll make it look like it’s part of a big master plan...and I guess it is, just in the sense of creating that sense of momentum. (Ashelford interview, 1997)

7 See Finn (2000) and Clarke (2004a) on the commercial maturation of the web in Australia.
The majority of programs, units and networks lacked any online budget allocation. Website development relied on staff and management having a synergistic enthusiasm for internetworking, and access to online publishing skills. Triple J created an elaborate web presence with a $20,000 budget and a dedicated online production position. In contrast, the high rating Sydney metropolitan radio station 2BL’s first site cost $2,500. Staff with some understanding of the internet were left to find a web designer and commission the site, and it was maintained largely by voluntary labour. Ashelford estimated that “probably a quarter to a third of all the initial development of websites was done outside the ABC, outsourced not by tender, but by word of mouth” (Ashelford interview, 1997).

With no money to fund new sites, the MMU drove other program-makers’ online activity by encouraging them to re-publish existing textual material. Former executive Andy Lloyd James described ABC Online as a guerrilla operation, whose lack of funding and cooperative approach made its mission more compelling:

…were it a division of its own – people would have seen it as being something which had budgets for itself; they wouldn’t have wanted to share their own meagre dollars with it. As it was they zipped around the place genuinely like a bunch of guerrillas, and enticed this, that and the other; constructed software so that program-makers could easily use online software actually making their own programs... (Lloyd James quoted in Burns, 2003: 358)

One advantage to the MMU’s promotional, collaborative approach was that it created grassroots support among interested staff, together with a sense of shared values and ownership over the new online domain. An awareness of web publishing began to permeate the structure of the organisation, if slowly and haphazardly rather than strategically. Another advantage was that the actual costs of establishing the service were distributed across the corporation and, being drawn from existing broadcast budgets, were effectively hidden. This allowed the MMU to avoid the external scrutiny given to other new commercial enterprises.

The MMU’s disorganisational effect relied on it disseminating positive rhetoric about multimedia and developing a shared understanding of multimedia’s potential. In its first six

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8 In September 1995, ABC Radio Training in Sydney’s Ultimo centre offered only one PC equipped with Netscape for staff do undertake a ‘self-teach’ internet research tutorial.
months the MMU published two newsletters designed to encourage broad staff interest in its mission. The first used marketing data and technological romanticism to sell the significance of “the multimedia revolution”, where innovations like cable modems would make “computers sing with full interactivity” by the end of 1996 (Manning, 1995: 2).

It was not easy to sell its online vision with a web service made up of rudimentary, derivative content. ABC Online was, until the 1996 federal election, a static reproduction of existing program and publicity materials. Schedules, transcripts, biographical details and press releases were favoured. Email was the only method of inviting audience response. While early radio borrowed from theatre and concert halls, and early TV resembled radio and theatre with pictures, early websites drew from print culture. They were magazines with email. This aesthetic conflicted with the powerful rhetoric of convergence, which would accompany Brian Johns’s plans to restructure the ABC.

Convergence

In *ABC 2000 and Multimedia* Peter Manning noted one of the “reasonably safe assumptions” about the coming media environment was that “television and radio will converge in varying degrees (eg. interactivity) with multimedia” (Manning, 1995a: 1). Convergence functioned like multimedia: as a floating signifier. Its use could have denoted the future interoperability of digital content, the combination of multiple technical features in one device, and/or the adoption of common or hybrid production practises. However in the ABC convergence also had definite enterprise connotations, particularly the possibility of cost-cutting mergers or alliances between divisions. Johns would later emphasise his wish that the ABC would become “a far more modern, responsive and flexible organisation” which embraced technological change and exhibited “a real convergence of ideas and skills” (Johns, 1996d: 2).

Rather than exhibiting signs of industrial or technical convergence, the embryonic ABC Online reflected the ABC’s creative divisions and the web’s technical limitations. Content was organised under radio and TV headings, although by December 1995 a search engine allowed some subject-based navigation. There was no moving image or audio until 1997.

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9 Not dissimilar perhaps to the technological convergence of radio and television on budgetary grounds imagined in the 1940s by BBC Directors General John Reith and William Haley (Crisell, 1997).
After the pioneering efforts of *Hot Chips* and *BTN*, radio sites comprised more than half of the first and second wave launches of ABC Online.10

Ian Vaile, online education producer, claimed that radio producers were:

> ...so much better organised at delivering [content]...at archiving that stuff, at transcribing it and at delivering it to us so we could use it and turn it around...whereas at TV there is no institutional commitment to ABC Online’s presence. (Vaile interview, 1997)

Radio program-makers’ rapid adoption of online publishing was in part due to the location of the MMU in the heart of Sydney’s Radio division. However it is more likely that the difference between the divisions’ take up of the Internet was technocultural – having to do with shared values for new technologies and common ways of using them.

Colin Griffith, Peter Manning’s successor as head of the MMU, argued that even by early 1998, there was more interest and involvement in online publishing from radio than television production areas.11 He suggested the Radio division, an older, less well-resourced sector than ABC TV, was more open to investigating ways of exploiting an expansionary new medium. A narrowband service that couldn’t offer high quality video streaming had little to offer television executives. They were caught up with the industry debates on satellite and subscription TV. Radio program-makers generally had a greater familiarity with ICTs and talkback. RN staff members, with their experience of narrowcasting, were especially interested in the reach and diversity of online services (Rapley interview, 1997). It is also possible that radio teams adapted more easily to web publishing as they had a ‘flatter’ production process than television: smaller, more multi-skilled and less hierarchical teams producing a great turnover of content (Griffith interview, 1997).

There were fewer points of cultural commonality between CD-ROM and daily broadcast production, radio or television. After guiding a group of senior ABC broadcasters through a

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10 The ‘second wave’, launched December 1995, included metropolitan radio stations 3LO and 2BL, Four Corners, Classic FM, 24 Hours magazine, TV program highlights and ABC Shops.

11 A phenomenon also reported by Marshall, Luckman and Smith (1998) in their survey of relationships between internet promotion and media product.
crash course in multimedia creation, Andre Colbert said that conceptually many program-
makers found it easier to relate to online production:

On a skills acquisition level online is heavily text based, and therefore biased
towards writing and editing, with a peppering of graphics...directed towards the
short-term deadlines and scheduling familiar to broadcasters. (Colbert interview,
1997)

CD-ROM production, which in the case of the Bush Tucker Man project took eighteen
months, correlated more closely with the production practices of TV features and drama.
However it demanded a more developed digital aesthetic than television, including an
understanding of interactivity. Colbert said most program-makers equated interactivity with
hypertext navigation rather than non-linear representation of cognitive processes such as
problem-solving (Colbert interview 1997).

Thus while CD-ROM production was more aesthetically and technically convergent than the
web, combining audio-visual resources in more sophisticated ways than was possible online,
but it was less technoculturally convergent. The web was a more flexible and relatively less
complex publishing technology than CD-ROM. It could be used for research and publishing.
Automation processes allowed program-makers with little more than word- processing skills
to publish and update website content, integrating this into their existing broadcast routines.
Where web production gradually expanded to involve personnel in most areas of the
corporation, there was limited integration of CD-ROM projects into everyday production
regimes. By the time New Media was shut down in 1997, only thirty or so broadcasters had
been critically involved with its projects (Zwar interview 1999). CD-ROM was, like
broadcasting, a centralising information technology, whereas the web was more decentralised,
at least for those who understood it.

Outside the MMU, technate program-makers like Ian Allen and Stephen Rapley also began to
educate audiences about life online. During 1996 they developed two hybrid broadcast/web
programs, ABC TV’s Http:// <http://www.abc.net.au/http/> (Figure 5) and Radio National’s
Click On! to examine the Internet as a cultural, rather than economic or technological,
phenomenon. These programs can be considered disorganisational in that they arose from
individuals’ interest in the Internet rather than any policy agenda, and their production crossed
divisional and institutional boundaries. They drew on user expertise to produce their pedagogical texts, extending the ABC technocultural relations and testing the boundaries of how program-makers and users could interact.

Ian Allen, the Http:// website producer, said the series was an experiment in convergence, developing synergies between television and internet technologies (and later radio). His intention was that the web content would lead the narrative direction of the TV program, so the Nettalk guestbook was set up three to four months before Http:// was broadcast. It invited users to comment on a range of ICT issues, and their posts were used to shape Http:// segments and contribute ideas to Click On!. During the TV program run email excerpts, complete with user’s name and address, were also shown as text captures from the website and voiced by an Apple Mac speech synthesis program. Picture Tel, an online videoconferencing system, linked the TV studio to the internet for overseas interviews.12

Http:// and Click On! spoke to different user cohorts. Click On! targetted novice users, together with “‘nervous-but-interested’ listeners who want to try the Internet but are daunted by the technology” (Morrell, 1996). It was “a surrogate way of finding out what the Net means” (Strachan, 1996) and used a listserv to communicate with its listener/user community. Http:// spoke to the active technology user, but as producers estimated only 700,000 Australians were online at that time they tried to incorporate a remediation principle for

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television audiences. Online users could browse background research material and links on the website. For TV viewers, these information pages were digitally captured, then turned into video for frame by frame capture (Allen interview, 1998).

Despite these experiments, at a divisional level there was little interest in converging production processes and more concern about costs and control of the process.

Resistance

Radio division managers adopted what Griffith called an “Eastern Bloc” approach to multimedia, arguing that they should have editorial and budgetary control of radio-related projects (Griffith interview, 1997). Peter Manning lobbied hard for broad managerial support of the MMU, but met with mixed reactions. While ABC TV showed little interest in multimedia developments, a number of executives, particularly from the influential News and Current Affairs lobby, saw ABC Online as a funding threat; a diversionary activity which would drain resources from other areas (Griffith interview, 1997). The board rejected Manning’s $10–$15 million per annum proposal for multimedia development funding, although this was less than estimates for comparable commercial start-ups.13 When it became apparent that Johns was unwilling to back a new investment of this scale, Manning pulled out of the project (Griffith interview, 1997).

Colin Griffith, who took his place, was one of a few policy-oriented people interested in the multimedia experiment. He had transferred from Strategic Development to the MMU in December 1995, when its budget and lifespan was almost up. In a later journal article he indicates his awareness of the web’s potential to develop as a “radically new media form with fundamentally different creative and narrative demands from previous linear media”, rather than simply extending existing broadcasting (Griffith, 1996: 49). For ABC Online to develop in this direction, Griffith recognised that he needed senior executives onside and an ongoing commitment made to multimedia production.

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13 The ABC estimated that ninemsn’s initial set up cost was $50 million, compared to less than $5 million for ABC Online (ABC, 1999c).
By February the ABC Board had accepted his modest budget proposal of $1 million and decided almost unanimously that the MMU would be a continuing part of the corporation’s activities (Griffith, 1996a). The corporate plan of that year states multimedia would be used to “add value to existing activities and to pursue the new medium’s [sic] creative opportunities” (ABC, 1996a: 48). Designated priorities for service development included access and interactivity but the MMU was expected to raise money to support any expanded operations.

Prior to its election the Coalition had appeared positive about the ABC’s multimedia push. Its Better Broadcasting policy offered to encourage the national broadcaster in developing “this flourishing area” (Liberal-National Party Coalition, 1996). However in August 1996, contrary to its pre-election promise to sustain ABC funding, the government cut it by 2 per cent. It also forecast a recommendation from the National Commission of Audit (NCA) for a further reduction of $55 million or 10 per cent in the following year (Davis, 1997: 81). The cumulative loss would be $66 million and 1,300 jobs within two years. Instead of supporting multimedia activities, the Coalition revoked Labor’s promise of a $2.1 million extension to the Triple J site. On taking up the Communications portfolio in the new Coalition Cabinet, staunch ABC critic Senator Richard Alston also commissioned commercial media executive Bob Mansfield to undertake a full review of the ABC's role and functions, as a prelude to implementing the NCA reductions.

While Mansfield was conducting his review, Brian Johns and Colin Griffith lobbied to keep the MMU insulated from the cuts, a move that led to some recriminations from staff in TV and Radio. It was difficult though to raise a strong case against the success of ABC Online. In June 1996 Business Review Weekly had deemed it “informative, ambitious, and interesting” and one of the best websites in Australia for commitment to content updates (Lane, 1996: 61). A month later ABC Online won best Australian website at the second annual AusWeb conference, and subsequently, best media website at the inaugural Australian Internet awards. Within a year, the service had experienced 5 million page accesses, and the MMU estimated 30,000 people a week were cruising large sections of the site, rather than one program (Hunder, 1996). In enterprise terms Convergence Reporter indicated websites had reduced publishing and public relations costs for the ABC and cut the time spent handling program inquiries (Anon, 1996b).
Buoyed by these outcomes Brian Johns relaunched ABC Online on its first birthday, appearing onscreen as an avatar, or computer generated figure, to open the door on a new homepage while ABC personalities brushed virtual shoulders in an online chat room (Multimedia Newsline, 1996a). His vision of global competition set aside, Johns spoke of preparing the ABC for a sustainable position in the new media environment (Hunder, 1996).

Multimedia is part of the ABC’s future as a provider of information and entertainment across a range of mediums. The future is what this event today is all about – celebrating ABC Online. Cutting off the future is never a good idea. (Johns, 1996a)

From this moment, multimedia operated as a metonym for the future and a rebuke of the Coalition’s abandonment of multimedia development funding. ABC Online would assume a growing importance in Johns’s public speeches and his strategic thinking, despite its eventual marginalisation in the Mansfield review. Multimedia, and its concretisation in ABC Online, also became a fluid informational diagram for re-imagining the corporate assemblage – its spatiality, its internal and external relationships, and its enterprise rationale.

ABC Online: managing the national

In late 1996 Johns began to describe ABC Online as a means of representing and activating the nation. In a keynote speech to the International Association For Mass Communication Research (IAMCR) conference in Sydney, he paralleled the ABC’s “unifying force” in Australian life with the purpose of ABC Online:  

I’m thinking in particular of how ABC On-Line connects different groups…[such as]…youth around the country who are passionate about the youth music radio network, Triple J…Last week, we added a special rural service to the web site. It provides Australia’s most comprehensive and independent coverage of primary industries…It allows the audience to swap stories and to give feedback to the

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14 The online environment was created using Palace software, and viewers in Sydney and Melbourne were linked using CUSeeMe video conferencing and radio links.
15 Johns (1996a) claimed the commonality of English pronunciation styles across the country as evidence of the national broadcaster’s cultural influence.
ABC. The service is called Bush Telegraph and it draws on the resources of ABC rural radio services. (Johns, 1996a)

While the ABC’s broadcast networks had mapped Australia in different ways and to varying degrees (Wilson, 1997, 1998), Johns spoke of ABC Online as more than the sum of these parts: inclusive of different audiences, but supporting their desire to speak to the ABC and each other. It would extend the circular communication of culture across its territories.

In the same speech John’s alluded to the ABC’s entry into the ‘new media environment’ as a way of reviving debates about universal service:

Public broadcasting must not be marginalised for want of guaranteed access to new media transmission technologies. If the ABC is to remain viable and relevant, it must be accessible to all Australians, no matter where they live or how they receive their broadcasting services. Accessible by terrestrial means, cable or satellite. (Johns, 1996a)

At this time questions of online access were moving onto the federal policy agenda, but only 12 per cent of Australians had domestic access (Australian Bureau of Statistics, 1996) and the PSTN network was still the primary carrier of domestic internet traffic. There was no plan for rolling out broadband. Nor was there any public acknowledgement that ABC Online was a form of conditional access service, in that users paid for internet service provision. So Johns had celebrated the coming of Bush Telegraph, but the ABC’s regional radio stations would not be internet-connected for nearly two more years.

It is clear, though, that by late 1996 ABC Online had become a recognised national service. It had produced its first federal election coverage, with interactive electoral maps, candidate information and live results linked directly to the Australian Electoral Commission’s infrastructure (ABC Multimedia, 1996). The ABC “had a duty to be on the Net”, according to Fairfax journalist John Casimir:

The Australian-ness of cyberspace needs focus. There are plenty of local sites out there vying for attention but they’re pretty much adrift. They need major institutions such as the ABC to orbit, to provide a little gravity. (Casimir, 1996: 8)
The 1996/1999 ABC Corporate plan gave the MMU a brief to encourage interaction and participation with the wider multimedia industry and relevant government agencies, in order to promote and support the distribution of its content. This in turn gave the unit greater scope to be disorganisational in its exploration of enterprise alliances and creative processes.

Linkages and relationships

From 1996 the MMU regarded “linkages and relationships” with different audiences, including those of potential commercial partners, as the key to enhancing ABC Online’s profile (Rapley interview, 1997). In this context ‘relationship’ had a variety of meanings: a contra deal (an agreement in which skills or resources were traded); the joint development of a funding proposal; or trials of hybrid public/commercial service delivery.16 Stephen Rapley, by then a new ABC Online producer, witnessed a period of speculative negotiation as the MMU explored its funding potential outside the corporation: seeking government grants, public institutional collaborations, and commercial liaisons that would promote ABC Online.

Rapley indicates a lot of time was spent considering the politics of such relationships, especially their policy and editorial implications for the ABC. He and other online producers adopted an economically pragmatic line by which small-scale, policed commercialism was regarded as necessary to support creativity:

> What the ABC has is its content credibility and editorial independence. People want to buy into that. They want to associate with, and rub up against, that and feel warm. What they have is opportunities to enhance the awareness of our content, and there’s no way we can be pure and say “sorry there’s filthy lucre associated with that site we can’t be associated with it”. (Rapley interview, 1997)

In a February 1997 report to the head of National Networks, Colin Griffith argued that multimedia activities themselves presented “an important opportunity for the Corporation to generate revenue” (Griffith, 1997: 3). He indicated three examples: electronic commerce for the sale of ABC products, licensing of existing content to third party multimedia producers,

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16 In 1997 ABC Multimedia was approached by Optus Vision to provide streamed video content for a cable modem experiment with educational programming. *Behind the News* supplied some of that content which was streamed to schools in Sydney and Melbourne (Ridgway interview, 1998).
subscription content systems, and program supply agreements or licensing deals with third party operators, co-productions and joint ventures.

In order to realise these opportunities the MMU had to better manage its cross-divisional relationships, particularly with technical support services. The MMU’s relationship with IT had remained difficult, largely because of differing goals and means of tackling work. A specialist internet team had been set up by IT but small, crucial jobs, like writing code for an automated email process, could still take weeks to complete to draft stage. IT wanted to work to set specifications with long deadlines, but this approach to service delivery provoked harsh comment from the MMU, where staff operated on a technocultural paradigm that prioritised innovation:

Production people would say this is the task we want you to do today...three days later we may want to modify it, and another week later we may want to change our priorities – and that was beyond [IT’s] capacity. It wasn’t just something hard to deal with, they just refused to deal with it. It’s a cultural thing about needs, and expectations and service. (Rapley interview, 1997)

However, according to Rob Garnsey, one of the IT team members, the MMU often expected too much, too fast:

IT thought the MMU was jumping from one new fad to the next, and not setting priorities, and not being organised about what it wanted and having unrealistic expectations of how quickly things could be done. (Garnsey interview, 1997)

The difficulty, as IT saw it, was establishing the “legitimate demands” of the organisation, and making sure their technology was up to it (Garnsey interview, 1997). IT had reasonable concerns about the strain of interactivity and internetworking on ABC infrastructure. Manager of Network Services, David Swan was worried about increased use of applications such as RealAudio, a bandwidth intensive audio streaming application, and its impact on local area networks. As more employees moved from having dumb terminals to using PCs, to browsing the Internet and downloading files, the demands for service and load on network infrastructure had increased dramatically (Swan interview, 1998).
The antagonism arising from technocultural clashes and disputes over service charges nearly resulted in the MMU outsourcing its technical support (Griffith, 1996; Pollard, 1996). A simple compromise was eventually reached: a secondment process that absorbed IT expertise into the MMU. IT personnel worked with the MMU on a rotational basis, providing a direct link to the ABC IT system managers (who made all strategic decisions about resource allocation for development work). In this process the MMU began to work across the ABC’s divisional and cultural boundaries, challenging hierarchical rigidities in order to speed up the process of information exchange.

One ABC

Brian Johns saw the MMU and ABC Online as virtual expressions of the organisational restructure he would later attempt to enact. In his Online anniversary speech he forecast that his One ABC vision involved “structural change, closer working relationships between the existing media divisions” (Johns, 1996a). In launching that policy in December 1996 he said “the old structure simply lacked the flexibility to respond to a rapidly changing media environment and audience needs” (ABC Corporate 1996: 1). In response to the Coalition’s cuts he wanted to turn the ABC into a convergent, decentralised enterprising entity that would “reduce bureaucracy, improve work practices and operate more efficiently” (p. 2). As Anne Dunn (2005) also concludes, in One ABC technological change was (again) linked to the pursuit of enterprise.

It is possible that Johns was influenced by management literature of the mid 1990s, which speculated that computer networks would make space and geography “more malleable, [and] more subject to human control”, even obliterating the social and economic constraints of distance (Mosco, 2004: 91). Political economist Vincent Mosco describes enthusiasm for a networked space “of virtual corporations, horizontal organisations, and flexible specialization, the furthest thing from the rigid military structures that governed the factory age” (p. 89). Under the One ABC policy, the TV and Radio divisions were merged. The old divisions replaced by four program focused areas, Regional Services, National Networks, News and Current Affairs, and Program Creation plus three administrative areas, including Technology Strategy and Development (TS&D). ABC Multimedia was positioned alongside TV and radio services, under the banner of National Networks (ABC Corporate, 1996) although its budget was only marginally increased.
Johns’s proposed co-location of TV and Radio caused intense internal anguish in the old divisions (see Dempster, 2000). In contrast, new education online producer, Ian Vaile, saw the MMU as “the ultimate One ABC” a place where organisational relationships could be made anew, where the restructure was seen as an opportunity for the unit to thrive and expand (Vaile interview, 1997). One ABC relieved the MMU of its experimental status under Corporate supervision. ABC Multimedia was to work across the established networks to develop a range of online ‘information gateways’ for news, regional, science and education programs. It was also to work with TS&D area on internal and external broadband networks, digital production facilities and archives. In short, it would begin to order the ABC’s disorderly web output and organise its digital domain. Through the growing influence of the MMU, ABC Online would become the test bed for the corporation’s digitalisation. This occurred as Bob Mansfield was conducting his review of the ABC’s role and functions, but did not influence his findings.

Mansfield defined the ABC’s core business as free-to-air broadcasting, which excluded multimedia from its organisational priorities.17 Burns (2003) argues that this was in part because ABC Online was still tacitly considered, in policy terms, an ancillary service. She notes that the ABC’s own submission to the Mansfield review is relatively silent about ABC Online’s function – even though its operations clearly addressed the review terms of reference and it had been the model for John’s restructure. But a brief oversight of Mansfield’s analysis is important to place Brian Johns’s subsequent campaign for multimedia funding in context. Why would he pursue the government to fund a ‘non-core’ organisational activity?

Mansfield Inquiry

Bob Mansfield had been the chief executive of McDonalds in Australia, Optus and John Fairfax, but he claimed he had “an open mind” on the ABC and its role (Davis, 1997: 83). He gave himself only six months to conduct the federal inquiry, and to consider 10,615 public submissions. Policy analyst Glyn Davis argued Mansfield’s final report, released in January 1997, was “overwhelmingly positive” about the ABC. It recommended “only modest changes” to the corporation, supporting the retention of broadcasting services, while staving off further funding cuts and any radical restructuring of the ABC’s role (Davis, 1997: 81).

17 See Maureen Burns (2003) for a detailed analysis of Mansfield’s core/non-core taxonomy.
Most subsequent changes to the corporation were a response to declining state funding, rather than the review (Brown, 2000).

This was perhaps fortunate given Mansfield’s findings on digitalisation and multimedia were short-sighted and contradictory. Throughout his report he argued that the ABC must adopt digital technology in order to improve its creative opportunities and retain its “relevance in an increasingly competitive media market” (Mansfield, 1997a: 5). The ABC needed to “plan and provide for technological change, primarily the digitisation of production, post-production, transmission and archives” (p. 6). Mansfield advocated a cross-media approach to production, sharing of digital content resources across the corporation, and better communication between departments – but failed to recognise the centrality of the ABC Multimedia to the research and development of those processes and cultural changes. He did not even differentiate the unit’s research and coordination functions from ABC Online, the web service (Martin, 1999).

Mansfield argued against formal recognition for the ABC’s delivery of online services, saying they should only be used as a promotional support to its “core domestic broadcasting requirement” (1997a: 20). Contradictorily, as Steel (1997) indicates, elsewhere he said the ABC should “promote its role as an information provider more actively” and “interact with its audience [sic]”, citing ABC Online as evidence of “a good start in this direction” (p. 23). He did not acknowledge the ABC’s proposal for multichannel television streams, and considered only the digitalisation of existing services (Brown, 2000).

As Steel points out, Mansfield’s “blueprint for the future, his revised draft charter – seems haphazard and strangely backward looking” (1997: 74). Missing from that draft version was Section 6(2)(b) of the ABC’s Charter, under which the board was granted powers to establish services like ABC Online that were “connected to or promote ABC programming”. If Mansfield’s draft had been adopted, it is possible that experimental digital services could only ever have operated as commercial ventures.

Mansfield’s lack of foresight is not surprising given Andre Colbert suggests that at this time there was “widespread ignorance” about interactive multimedia in the broadcast industry and some scepticism about its potential (Colbert interview, 1997). Mansfield’s position also reflects to some extent the government information and communications policy of the time. Senator Alston was yet to incorporate the ‘information economy’ into his communications
portfolio, creating the National Office for Information Economy (NOIE) to develop and coordinate advice on ICT issues. Further in late 1996, the federal government had not yet made decisions regarding the shape and policy implications of new digital broadcast services. So, in commissioning Mansfield’s inquiry, the Coalition pre-empted careful consideration of the ABC’s role in both digital broadcasting and Australia’s information economy.

Significantly, Mansfield was too early to see the paradigm shift in production and audience relations about to take place online that would ensure the ABC’s continued interest in multimedia. The ABC Online viewed by Mansfield in mid to late 1996 was still largely a promotional vehicle of static text and graphics. Meanwhile online producers were gearing up for a year of innovative launches – their first live forum, part of the Frontier series in May 1997, followed by a streaming audio trial in June, and an integrated news service in August. All this, and the launch of a groundbreaking science initiative, The Lab, would take place after Mansfield had delivered his findings. The Lab’s development exemplifies the ABC’s institutionalisation of the web, and its adaptation to an informational context and a new pedagogical approach.

The Lab

Figure removed due to copyright restrictions
ABC Science Online or *The Lab* <http://www.abc.net.au/science> (Figure 6), launched in July 1997, was structured as a prototype information ‘gateway’ to all forms of ABC science content, and designed to appeal to the fifteen to twenty five age group (the Triple J radio demographic) encouraging them to consider science-based education. The federal Department of Industry, Science and Tourism’s (DIST) Science Awareness Programme funded the exercise as part of a broader ABC science initiative after Colin Griffith together with the *Science Show's* high profile presenter, Robyn Williams, made the case that ABC Online would promote Australian science overseas more effectively than domestic radio or TV broadcasts, further justifying the resources spent on specialist program-making.

In November of 1996, when the DIST funding was approved, McGauran’s media release positioned ABC Online as a part of a new “nation-building” project, a way to “arouse the interests and harness the talents of our scientists of the future now” (McGauran, 1996:1). According to ABC chair Donald McDonald *The Lab* would be “a visible international centre for ideas” and would “completely change the way that people in Australia and elsewhere in the world think of and use the internet” (McDonald, 1997).

The name *The Lab* denoted a site for experimentation, exchange, and exploration. While it hosted some re-purposed broadcast content, the site highlighted original innovative material, such as The *Holodek* which featured games based on concepts like chaos theory, and an irreverent perspective, as in Bernie Hobbs's *Big Fat Science*. The *Self Service Science* forum allowed users to answer each others’ science conundrums. They were invited to contribute feature stories “broadly related to science” for publication on *The Slab*. The ABC worked with the CSIRO to produce a web soap opera, *CO2 Lab*, based on greenhouse gas research. Teaching resources were developed with state education bodies and listservs set up to host teacher discussions. *The Lab’s* producers worked with commissioned Shockwave and Java animation programmers in a “template for the future of website production” (Ashelford interview, 1997). At the site launch, McDonald also spoke of *The Lab* as “part and parcel” of Johns’s One ABC concept, uniting the corporation’s coverage of science (McDonald, 1997).

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18 Those programs were: *Quantum, Wildscreen, Earthbeat, Innovations, Science Show, Health Report, and Ockham's Razor*. NewsRadio provided science news content.

19 Write for the Slab could be found at <http://abc.net.au/science/slab/archive/promo.htm>

20 *CO2 Lab*, which started in April of 1997, represented a quantum leap for the CSIRO – from media releases and research publication to cultural production. Individual departments and research areas had to consider how they might post their “corporate personality” online (Vaile interview, 1998).
It was the first ABC website to explicitly address the challenges of informationalisation including the accumulation and organisation of dispersed symbolic flows, and the development of ways to harness extra-organisational information resources residing in networked communities of expertise. The site structure was built around a database of the ABC’s science-related information and a dedicated search engine called Kelvin:

What sits behind *The Lab* is a really extensive database that has keywords, a brief description, contact details of the producers, reporters and researchers that were involved in the story, the story itself, [that] stores the links to international and Australian sites, transmission dates, flags any copyright problems that might exist with the program, [and] it's got a subject index where you have to pick from a series of subjects...all that generates what you see in Kelvin, the table of contents chronologically, alphabetically, and by subject...and it begins to provide for the first time a real sense of an archive. (Byrnes interview, 1997)

Indexing this information increased the potential speed of access to, and exchange of, ideas between staff and users, and to the extent that it provided a historical context for the production of story materials, potentially simplified the research process. *Lab* web developer, Clare Byrne saw these tools as an enormous boon for program-makers: “I mean how many times do people start from scratch?” she asked. “Over and over again...you talk to researchers and they say I’m sure I’ve done that” (Byrnes interview, 1997).

More importantly, Ian Allen, *The Lab* project coordinator, saw the website as a means of building relationships and community, both outside and inside the ABC. In his plan for the service, he argued that cross-divisional endeavours must be built on a culture of trust, resource sharing and collaboration around the new technology. Science program-makers had to understand *The Lab* team as an extension of themselves: “i.e. we are seen as part of ‘us’ rather than of some external ‘them’.”(Allen, 1997: 1). He also hinted at a new ethical diagram for public service communication, drawn from his experience of online research communities.

*The Lab*, he argued, should present science as a collective, co-operative venture. He advocated sourcing publishable material direct from “the science community”, and managing questions of editorial integrity or consistency through open, on-site debate.
If someone takes exception to a particular article, we provide the forums and means for them to say instantly so. That’s one of the great advantages of Web publishing. We don’t have to pretend to be the authoritative “Voice of God”. Science isn’t like that anyway. Debate and dissent is healthy (Allen, 1997: 4).

This ethos represented a shift from a patrician, hierarchical communications modality of broadcasting, towards the participatory, contestable forms of authorship cultivated online. Certainly the way had been prepared by the ABC’s 1970s experiments with youth and feminist radio programming (cf. Fell, 1995; Albury, 1999), which incorporated marginalised voices and involved collective and collaborative production processes, new forms of presentation and speech. However unlike these broadcast innovations The Lab promoted dialogue with users as the ideal form of educative audience engagement.

The Lab’s degree of innovation would prove difficult to replicate in other areas of ABC Online as there was little money to produce original web material. Mansfield’s assessment had undermined the case for increased operational funding to support ABC Online, particularly with the NCA cuts pending. In the 1997–2000 triennial funding proposal Johns sought $4 million per year seed funding for further ‘gateway’ development: organising the website into what the Mansfield report had defined as key content areas, including news, children, youth, and regional and rural (ABC, 1997b). He couched ABC Online’s role in solidly public interest terms: providing Australians “equitable access to and participation in new media services”, a “trusted and independent guide” to the internet, and a locus for independent multimedia production (ABC 1997b: 45–46). The funds were not allocated.

Debates over resources and managerial oversight of ABC Online would continue for some years, despite Johns’s continued promotion of the service, because of the ABC’s worsening financial state. But concurrently internal support for ABC Online grew, not in the least because it appeared that it was attracting growing – and possibly new – audiences.

According to the ABC’s annual Newspoll review ABC Online was the third most visited Australian website during the 1998 election and did not drop below fourteenth most popular (ABC Corporate, 1999a). The service was reaching Australians overseas (Naughton, 1999) and The Lab’s ‘Antarctica Live’ online debate had attracted more users than the host server could cope with (Burns, 2002). The ABC’s first substantial qualitative study of ABC News
Online users in December 1997 showed that online news was not “cannibalising” existing radio and TV news audiences, and was most used by “the 25–44 age group, a section of the population usually under-represented” in ABC audiences. They were younger than that of all radio networks (excluding Triple J) and “substantially younger than the 57 year old median viewer of the 7pm [TV] news” (ABC Audience Research, 1997: 9).

This type of information was leverage to secure internal funding from departments like News and Current Affairs for the further expansion of ABC Online. Johns would ignore Mansfield’s designation of multimedia as a broadcast adjunct, placing it instead at the centre of the ABC’s digitisation and digital television strategy.

Digital television

For the 1998/99 financial year ABC Multimedia’s budget was increased by 50 per cent to $1.5 million, with another $1 million directed to content gateways including News Online, The Playground (for children two and up) and the Space (arts and culture). Technical support and marketing for ABC Online raised the total to an estimated $2.7 million. Overall budgetary restraint put further pressure on the ABC Multimedia to seek funding partners and commercial alliances for its multimedia development, but this activity occurred behind the scenes. In a newspaper commentary Johns declared “the growth of ABC online services is a cornerstone of a program strategy that will increase emphasis on Internet and data services, and deliver more diversity on television and radio using digital broadcasting for higher quality pictures, and multiple program streams” (Johns, 1998).

Indeed by 1998 Johns’s attention had already moved from online services to digital television. In this he was influenced by two factors: the BBC Director General John Birt’s strong advocacy of digital services on his February visit to Australia (ABC, 1998b) and the federal government’s April announcement of its digital television policy. That policy and the subsequent legislation would protect free-to-air players from further competition until the shutdown of the analogue network in 2008, but interestingly left the possibility of multi-channelling open for both the SBS and ABC, an option earlier ruled out by Mansfield.21 Johns

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21 The process dictated by the Television Broadcasting Services (Digital Conversion) Act of 1998 began with digital transmission of high definition television by free-to-air channels in metropolitan areas from 1st January 2001, with regional areas to follow by at least 2004.
spent much of 1998 lobbying the government to ensure, first, that the state would meet nearly half the capital costs of digitisation – $84 million of a total of $180 million – and, second, that the ABC would have access to a full seven megahertz digital channel for both high definition and multi-channel broadcasts (Johns, 1998a). Within the year the ABC was working up a scaled-down version of the BBC’s digital television service proposal for its 2000 triennial funding bid (see ABC, 1999c).

Johns’s Australian nuance was a pitch for regional digital television, to be produced by existing radio staff who would be retrained and armed with digital cameras and editing equipment (Johns, 1998a, 1998b, 1998c). He promoted regional television as the “element that’s most exciting in the digitisation future…the prospect that we at the ABC can make television as intimate and as local, and as relevant as ABC radio” (Johns, 1998a: 1). Greater regional news coverage was a calculated offer to the National Party, the rural political partner of the conservative Liberals in Coalition government, and whose constituents were traditional ABC listeners. Johns’s lobbying was accompanied by a roll-out of internet infrastructure to regional stations, and the planning of an online gateway to local radio content.

Regional TV was not funded and Johns left the ABC in early 2000 having also been unable to secure recurrent government support for the ABC’s online domain. However in a curious twist of politics, his utopian, nationalist vision of a connected regional Australia, a vocal outback, would figure highly in the eventual growth of ABC Online under a new managing director, and is the focus of the coming chapter.

Conclusion

Again it is possible to see the ABC’s pursuit of multimedia development and its adoption of the web over CD-ROM as a linear narrative of technological succession. Multimedia was a more complete technology of translation than broadcasting: combining all the symbolic practices of mass media. CD-ROM was a less flexible multimedia form than the web: an unalterable artefact dependent on an essentially nineteenth century marketing, distribution and sales network, which divided the world along lines of colonial interest (Cunningham and Finn, 1996). Its production logic echoed that of broadcast – centralised, hierarchical, point to multi-point. The web was a multi-purpose, globally connected tool – a promotional domain, a DIY publishing platform, a discursive space, and an archive. It offered a decentralised,
customisable production logic appropriate to post-Fordist modernity. Equally simplistically we can ally the rise of ABC Online to the gradual realisation of its commodity value as technology stocks rose, web ratings became institutionalised and web marketing and commerce became more entrenched. Such lines of argument though, ignore the way in which social relations are re-imagined and reconfigured around technology.

ABC Online was disorganisational, sectarian and ad hoc but it had far greater organisational benefits than CD-ROM publishing. Within three years of its inception ABC Online, an experimental service set up to “fit into the structure” of the ABC, became its technocultural template. Although it was neither a greatly convergent medium, nor a revenue-raising pursuit, ABC Online became synonymous with enterprise because of its utility as both a diagram and crucible for shaping an informational ABC. It was a means of organising staff around the project of digitisation. Web publishing pushed staff towards cross-divisional and cross-media production and their perceived cost savings, while securing broader acceptance of outsourcing and extra-institutional partnerships. The promotional potential of the web attracted institutions and businesses to partner the ABC, creating new tensions – both cultural and commercial – around the forms of alliance developed.

In these processes ABC Online also began to re-spatialise the corporation, internally and externally. Traces of its disparate broadcast flows were navigable as an interlinked and searchable structure, a web domain. This domain symbolically bridged geographic, conceptual and demographic gaps between its national and local broadcast services, otherwise bounded and circumscribed by temporal constraints, limited spectrum allocation and transmission facilities. There were greater opportunities for cross promotion of content between TV, Radio and online content, and more chances of audiences moving between services, and beyond into the space of flows.

Finally the ABC’s underwent a pedagogical shift as ABC Online’s hypertextual structure and interactive mechanisms were developed to construct an active subject, obliged to realise her own potential and obligations to the nation through practical choices and actions. Web publishing prompted program-makers to explore practices of interacting with this subject: ways of inviting, using and responding to audience ‘feedback’. In doing so some moved beyond interpreting interactivity as more choice – “giving them what they want when they want it, not when we give it to them” (Manning, 1995: 2) – or even as the chance for ongoing
feedback, where “users respond in a way that neither television nor radio allows” (p. 2). Proponents of online dialogue recognised users as collaborators in cultural production and thus moved towards recognition of informational subjectivity, where users present and perform their identities online. Following The Lab’s lead other program-makers would pursue ways of soliciting and managing user agency, raising disputes about the scope and value of that agency.

In coming chapters this thesis will examine more closely the various configurations of a digital ABC that were drawn around ABC Online and subsequent forms of multimedia, such as datacasting and interactive television, to consider how they might impact on the ABC’s role. Accounts of ABC Online will dominate, because of all the interactive multimedia forms examined during this period the web has been the most persistent, the most mutable, most widely adopted, economically and culturally influential.

In the decade following the birth of the web most mainstream media organisations developed an online presence. As mentioned in the introduction to this thesis, the BBC’s and ABC’s web services competed successfully – perhaps too successfully – with commercial publishers. Surprisingly then contemporary analyses of the future of public service media have tended to focus on the future of broadcasting. In the next chapter I will argue that state funded vehicles for the translation of national objectives need to be seen as mutable objects, technocultural assemblages which are not exclusively tied to specific devices and which need re-imagining to remain relevant in an informational society.
Chapter 4

The mutable object

Communications technologies are certainly produced within particular centres of power and deployed with particular purposes in mind but, once in play, they often have unintended and contradictory consequences. They are therefore more usefully viewed not as technologies of control or of freedom, but as the site of continual struggles over interpretation and use. (Murdock, 1993: 533–534)

ABC Online was an unexpected outcome of the ABC’s informationalisation, which appeared to serve its old pedagogical and newer enterprise rationalities. The ABC’s institutionalisation of web publishing altered its operations. The broadcaster now had a global presence. Both staff and users had access to a greater range of content, on-demand, and access to dialogue with each other. Users could annotate, under editorial supervision, the ABC Online site. There were more public and commercial relationships for the ABC to explore and monitor. These changes opened up new and contested possibilities for the ABC to execute its public service obligations in an informational context. The next section of this thesis considers what these outcomes, and other developments in the ABC’s interactive multimedia program, might tell us about the evolving role of Reithian public service broadcasting.

Interactive multimedia forms were adopted during the process of digitalisation, the shift from analogue to digital information exchange systems that neoliberal governments projected as central to media and communications futures. Digitalisation, which underpinned informationisation and the increased scope, volume and velocity of global data flows, became the focus of media policy renovation and a trigger for reviewing the role of PSB. It became a new governmentality. This chapter argues that until recently though accounts of digital PSB underplayed the importance of interactive multimedia as a new translation paradigm distinct from broadcasting.
I propose that PSB research has tended towards macro analyses of digitalisation based on imaginary television futures, rather than approaches which consider the situated mutability of digital media. The result has been studies that conflate the evolution of television and the web, and poorly articulate the social relations enabled by differing digital media systems. What follows is a theoretical framework for understanding that oversight. In it I reconceive PSB as a mutable object, whose role is not exclusively tied to broadcasting technologies and which may be reshaped in its encounters with the users of its internetworked multimedia services.

I begin by interrogating the impact of digital governmentality on ways of thinking about the future of the ABC and PSB more generally. I then consider how the ABC’s project of governance might be rethought, by examining the struggles surrounding the interpretation and use of interactive multimedia. In particular I discuss the new subjectivities and socialities of online media, suggesting a series of technocultural concepts against which the role of the ABC in mediating national space, citizenship and new media markets can be tested.

A digital governmentality

As Chapter 2 indicated, under neo-liberalism digital communications technologies and their attendant discourses of enterprise and competition became tools for gradually turning the task of national communications over to the private sector and relaxing existing regulatory controls. For example, in Australia the former communications minister Senator Richard Alston argued that the increase in content diversity enabled by multiplying digital channels made media concentration regulation less necessary (implying, although this was unstated, that further government intervention to fund digital PSB was unnecessary).\(^1\) This position assumed an understanding of what would be carried by those channels, and did not question whether that information was innovative or simply the reproduction and re-circulation of existing knowledges. It was a technical decision that presumed a social/market outcome.

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\(^1\) Australia’s Productivity Commission (2000), the national competition regulation body, investigated the need for revised ownership regulations, but did not agree with Alston. It argued that as new online services were largely run by old media players, they did not promise a significant increase in information diversity (see Chapter 7).
From the 1980s successive Australian federal governments and their bureaucracies were occupied with developing regimes for managing the heterogeneity and systemic complexity of digital communications (Spurgeon, 1997). Their policies articulated a new governmentality. Communications scholar Chris Spurgeon argues that in media policy, discourses on digital technologies became coextensive with neo-liberalism in terms of “the digital value of communications”, in which scientific method and economic goals overrode social issues in bureaucratic planning for digitalisation (1997: 3–4). Thus contrary to practices under a social democratic rationale, the technical aspects of change were prioritised in policy over social aspects.

This focus is obvious in the Mansfield review of the ABC. Mansfield’s concern with the broadcasting and its digitalisation (see 1997: 6 and 12) excluded a broader analysis of how the ABC might address its governance dilemmas. For example, during an intensification of globalisation, Mansfield restricted the ABC’s core functions to digital terrestrial broadcasting and did not discuss ABC Online’s global field of operations or its potential to connect the Australian diaspora. Mansfield raised the need for the ABC to “make multiple use of materials” and “develop interactive services” (1997a: 14), and noted that digital technology developments had the potential to ‘revolutionise’ the distribution of broadcasting content (p.12) but did not explore ABC Multimedia or ABC Online’s utility in these areas, or in training staff in digital production techniques.

Such an instrumental focus drew on a potent, contemporary rhetoric of digital transformation. In his influential book Being Digital (1995) Nicholas Negroponte, a founder of the Massachusetts Institute of Technology (MIT) Media Lab, had promoted a utopian, deregulated communications vision, based on the shift of information processing from atoms to bits, the proliferation of micro-computing devices and information networks. Although the myth of epochal electronic change has antecedents, following Negroponte the term ‘digital’ was widely used to signal a departure from analogue or old media paradigms, as in ‘the digital age’.2 In media research this was a moment of radicalised modernity that represented a “break in the history of broadcasting” (Chalaby and Segell, 1999: 366) and would transform communicative relations (Dutton, 1999; Beer, 2005; Poster, 2006; International

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2 Vincent Mosco (2004) traces this myth back to Catholic theologian and philosopher Teilhard de Chardin (1961), who pictured a global electromagnetic web of thinking minds, a phenomenon he labelled the ‘noosphere’.
Telecommunications Union, 2006). In industry contexts the technical developments of the
digital age demanded new policies (BBC, 1996, 2004; Litan and Niskanen, 1998;
Communications Law Centre, 1999, POST, 2001, Jacka, 2001) as well as novel public
communications projects such as the BBC’s development of digital cultural commons

The transfigurative connotations of being digital have their roots in the classic information
science formulation of information (Shannon and Weaver, 1949). This divorces data from its
contextual meaning. Digital information is defined in terms of message length, complexity
and signal integrity: as a probability function with no dimensions and no materiality.
Transmitted as streams of algorithmically organised zeroes and ones, digital media forms can
thus be coded and recoded for use in a greater variety of contexts, by more users, and across a
far greater range of devices and platforms than analogue forms, increasing transmission
capacity. For example the use of digital compression and signal interleaving, or multiplexing,
allows the delivery of multiple audio streams via a single broadcast frequency. Yet rather than
delivering a post-broadcast paradigm (Gilder, 1994), it is arguable that the material processes
of media digitalisation involve varying degrees of technical and industrial reform, disruption
and dilemma to broadcasting, which may destabilise its operation as a technology of
government.

For sociologist Jean Chalaby and policy researcher Glen Segell (1999) communications
“digitisation” exemplifies concerns about the speed and scope of change in a risk society.3
They define four main areas of uncertainty for digital television broadcasters: market demand,
competition, regulation and complexity. Complexity is meant to signal the interdependence of
factors involving technological change – although only technical complexity is dealt with.4
Commercial players allegedly possess the edge in “technical mastery and leadership” that will
lead them to innovation and market domination of new distribution platforms (Chalaby and
Segell, 1999: 360). In this picture PSB is a fragile outgrowth of a threatened state structure,
subservient to the actions of industry.

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3 Beck (1992) theorises the risk society is organised on the basis of producing and managing the risks of
modern life.

4 Innovation capacity, or the organisational ability to respond distinctively to technological change that
threatens its competitive status (Kung-Shankleman, 2000), receives a deterministic treatment rather than
being treated as a distinct element of uncertainty.
Elsewhere digital PSB research has exhibited the utopian/dystopian dichotomy characteristic of many new media narratives, although local responses were conditioned by the relative strength of the national broadcaster in question. Peter Dahlgren described the additional channel capacity offered by the “digital revolution” as a “very promising” indication for an extension of Swedish PSB: more programming, diversity, repeats, better streaming of schedules and video archives (1998: 13). New channels would allow the relatively well-funded BBC to provide for specialised and underserved audiences (Born, 2004) and to develop innovative forms and genres using the internet (Murdock, 2005). Pan-European policy surveys were less optimistic about PSB’s digital competitiveness. Most national broadcasters offered few new digital terrestrial television services relative to the commercial sector (Betzel and Ward, 2004). Chalaby and Segell (1999) also argued cogently that as private distribution systems and conditional access channels multiplied, PSB’s loss of universal access was a major threat to its relevance and profile.

Ari Alm and Gregory Lowe argued a digital PSB must be a “polymedia enterprise focused on public mediation”, with the capacity to service an expanding set of platforms, channels and customers (2001: 12). They presented digital capacities as a competitive defence against the unknowns of a rapidly diversifying communications market, although they acknowledged the costs and risks of investing in every new technology. Here in determinist contrast to Chalaby and Segell, the digital is a transcendant force; the possibility of producing a complete communications “delivery array” (p.12) in answer to political and economic uncertainty.

The term digital then is more than a modifying epithet that attaches novelty to transforming entities, or even an unstable, floating signifier. It has become what Ernesto Laclau and Chantale Mouffe (1985), after Jacques Lacan, call a master signifier, or nodal point. It is emptied of meaning (particularly in the sense that most technical processes are already digital) but fixes a series of related shifting signifying concepts, such as multi-channelling, convergence and multimedia in a discursive field of action. A digital mediascape is a risky, changing environment requiring ongoing technological modification. Further, the digital performs an ideological function. It symbolises a modernist fixation with progress, expansion and improvement, and promises consumers the excitement of being at the forefront of communicative change (Lister et al. 2003). Being digital connotes having limitless symbolic capacity and future orientation. It is, undoubtedly, a condition of being modern. Jean
Baudrillard, surveying the scope of digitalisation and its pervasive incorporation into the
everyday, argued “life and digital technology have dissolved into one another” (1983: 55).

Digitalisation is thus both a material and discursive catalyst for a new governmentality, which
has as its object the development of informational capital through the expansion of knowledge
processing, storage and networked exchange. The abstract, variable nature of digital
communications technologies and their unpredictable implications for the project of national
translation can then be understood as a new problem of media governance. As an economic
opportunity and a risk digitalisation provokes the neo-liberal state to find strategies for
guiding people and things into becoming digital in certain ways – to guarantee market
expansion, while retaining political stability. The transition to digital systems demands policy
review and reassessment. How then has this digital governmentality impacted on the way the
future of public service media has been imagined?

PSB and the digital world

Digitalisation has operated as a rationale for operational or legislative review of PSB, as can
be seen in the Mansfield review or the more recent Charter review of the BBC. Yet until
recently most academic studies of digital PSB were concerned with the fate of its existing
broadcast paradigm (see Tongue, 1996; Goodwin, 1997, 1997a; Dahlgren, 1998, Chalaby and
Syvertsen, 2003; Padovani and Tracey, 2003; van Dijk, Nahuis and Wagmeester, 2005, Lowe
and Jauert, 2005). Where a convergence between online publishing and television was
discussed, it was not uncommon for the projected service to be discussed in terms of
broadcast delivery (see Theodoropoulou, 2003; Thomass, 2003; Born, 2004). Where
interactive multimedia publishing technologies, such as the Internet, were mentioned they
were regarded as an adjunct to digitalisation strategies, or in the case of the web, as
transitional to digital television.

Two examples are instructive of these assumptions and omissions. In Georgina Born’s
extensive account of the BBC’s digital vision, she reports uncritically a plan to make digital

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5 A British Department of Culture Media and Sport report on the future of BBC Online predicted access speeds
and compression technologies would make the broadband Internet “a genuine potential ‘third broadcasting
medium’” (Department of Culture Media and Sport, 2004: 60).
television the “platform to deliver universal Internet access, so mitigating the ‘digital divide’” (2004: 482), although she does not indicate the preferred platform or software system for delivery or acknowledge the possibility of other technical convergences.\(^6\) Born’s examples of innovative digital activities all involve “interactive connections”, web or internet delivered services (p. 489) and she labels BBC Online “an essential public service”, yet she offers no ethnographic or structural analysis of the BBC’s web services (Born, 2004: 499). This could be because in her account multichannel television had already conceptually subsumed the Internet.

Similarly Barbara Thomass (2003) assumes an eventual convergence of television and the web, after a given period, although she is more careful to point to a hybridisation of carriage, distribution services, interfaces and content, rather than a melding of existing technologies. Nonetheless her analysis of the digital challenges for PSB is centred on the costs of offering differentiated TV channels or competing with commercial broadcast program sales. Like Born, Thomass recognises that interactivity is implicated in a new conception of public service communication, but does not give a theoretical or technical analysis of its operation. She regards interactivity as an idea that has been technically “slow” to implement – another reference to digital TV rather than CD-ROM or the web (2003: 37). Interaction is discussed in terms of access to electronic program guides, channel navigation and marketing, rather than dialogue with audiences.

Less speculative, empirical surveys of the forms, functions, applications and institutionalisation of public service interactive multimedia – particularly online services – are relatively new, emerging at the turn of the 21\(^{st}\) century (Martin 1999, 2002; Naylor, Driver and Cornford, 2000; Burns, 2000a, 2000b, 2000c). These works, and others that followed (eg. Schejter, 2002; Young, 2002; Carpentier, 2003), coincided with arguments for PSBs to adopt non-broadcast functions and roles appropriate to a diversifying media environment (eg. Alm and Lowe, 2001). They demonstrate a growing interest in changing relations between broadcasters and citizens, and the emergence of an active media subject – the user. In late 2001, for example, I wrote a paper suggesting the ABC needed to “consider user/citizens as knowledge producers, engaging their creative, contemplative, explorative and interrogative

\(^6\) Although the concept of an internet/television convergence dates from at least 1996, with Diba Inc and Zenith Electronic’s Web TV (later MSN TV), by 2002 peer-to-peer networking of television content through online services such as BitTorrent and Videora was becoming common (Borland, 2005).
impulses online”, and should add to its Reithian mantra the concepts *involve* and *connect* (2002: 58). Two months after that article was drafted, then BBC director-general, Greg Dyke, announced plans to update that national broadcaster's image, offering a new pledge to its constituency – to “inform, entertain, educate, *connect*” (Arlidge 2002, my italics).

During the mid 2000s the call for new forms of public service media mounted (Martin, 2004; BBC, 2004, Tambini and Cowling, 2004, Murdock, 2004). By 2004 Spain, Austria and Denmark had altered their PSB remits to explicitly include internet services, and several other European countries had included general provisions for participation in new technological developments (Betzel and Ward, 2004). At the time of writing there was a wave of scholars exploring the remit of PSB online (cf. Murdock, 2007, Harrison, 2007, Storsul, 2007).

The British Office of Communications consultations on public broadcasting and media publishing provide perhaps the most comprehensive set of arguments for a revised understanding of state intervention in digital, neo-liberal media markets (cf. Office of Communications, 2003, 2004a, 2004b, 2005, 2007). Together with the Graf Report on BBC Online (Department of Culture Media and Sport, 2004) these informed the 2006 BBC Charter review, which led to a formal acknowledgement that the organisation should have an online service and should help “to deliver to the public the benefit of emerging communications technologies and service” (BBC, 2006: 8). Yet these inquiries were mainly concerned with how technological and market changes affected PSB’s social purpose. This thesis is more interested in how changes to social relations impact on the operations and role of PSB – particularly whether interactive multimedia publishing might address some of its informational dilemmas.

Interactive multimedia have rarely been considered as a *distinct* diagram for governing society that could address Reithian broadcasters’ dilemmas as outlined in Chapter 1. This oversight could stem from the political, social and cultural dominance of broadcasting in media communications, and its effectiveness as an affective, ‘universal’ means of translation (Lowe and Jauert, 2005). Academics have also been driven by urgent political demands: calls

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7 I am hesitant about the claim to universality in light of the dominance of some audiovisual markets by English language programming, a tendency which has the potential to marginalise ethnic or multilingual and cultural production.
to review regulatory regimes and standards for digital broadcasting in a rapidly changing mediascape (cf. Tongue and Harvey, 2004).

In exploring how interactive multimedia were employed to execute the ABC’s role, I will continue to use Scott Lash’s conception of the informational society as the socio-economic context for technological change. In the following chapters this thesis will also continue to foreground the discursive constructs that helped shape the way interactive multimedia strategies were devised and enacted. Studying discourses about new technologies is as important as studying their materiality because such discourses delimit the field of possible political, social and cultural meanings available to initiate technological change. How we anticipate, discuss and plan for that change in turn influences the conditions of technological adoption and \textit{becoming}.

\textbf{Becoming digital}

Foucault recognised discourse as a concentration of knowledge, a strategy through which power is exercised and governance made possible. He often refers to the utility of \textit{savoir}, instrumental or technical knowledges which concern how “to make a problem tractable or a material manageable” (Faubion, 2000: xviii). Discourses represent what is, and what might be:

\begin{quote}
The knowledges of the knowledge-economy and knowledge-society are imaginaries in this sense – projections of possible states of affairs, ‘possible worlds’. In terms of the concept of social practice, they imagine possible social practices and networks of social practices – possible syntheses of activities, subjects, social relations, instruments, objects, spacetimes...values, forms of consciousness. (Fairclough, 2003: 207)
\end{quote}
Even though Lash argues cogently that information now supersedes discourse as the basis for wealth accumulation, he does not reject the power of discursive knowledge to shape society through the communication of ideas and the production of innovation (2002: 142). For example, he suggests that discursive education is fundamental to creating both knowledge-intensive labour power and a ‘reflexive’ subject, who can not only choose between products or ways of living, but also consider their impacts on her individual circumstances and share this meaning with others.8

The coming chapters elaborate how the ABC’s interactive multimedia services were institutionalised and that subject courted. That is, they follow the context of technological planning and adoption, processes of enculturation (the bestowal of a technology with lived meanings and values) and impacts on users’ behaviours and social relations (Silverstone and Hirsch, 1992). In doing so I isolate new ways of relating and new subjectivities that emerge from those dialectical processes of discursive and social engagement (Fairclough, 2003).

Phillip Roe (2003: online) speaks coherently of thinking through that process of transformation using related philosophical concepts: Derrida’s “future-to-come”, Heidegger’s “projection” and Deleuze’s “yet-to-come” (virtuality). Each is concerned not with the state of an object – its being-in-the-world (to use Heidegger’s term) – but with how it becomes what it is. It follows that new media studies should not be defined by research objects such as the web or DVD, but by their preoccupation with the Deleuzian virtual: the terrain of conceptual potentiality which contains, but does not prescribe, the real. For this reason each of the following chapters begins with some reflection on how governmental strategies come into being around particular problems – of connecting populations across space, forming and activating citizens or developing new communications markets.

My work parallels other cultural studies inflected social constructivist analyses that seek to map the political decisions shaping our future technological interactions. John McGregor Wise (1997) insists all technologies can be thought of as abstract, Deleuzian machines, mutable ideas about the structure and operation of an assemblage through which competing political ideals are played out. Thus Vannevar Bush’s (1945) musings on the future of knowledge management inspired the development of the mouse, windows as interfaces and

8 For an extended discussion of this reflexively modern subject see Lash and Urry (1994).
hypertext, even before the personal computer was conceived (Nyce and Kahn, 1992). As the Internet assemblage developed these technologies became the site of contests over the corporate control of information access, such as the browser wars between Microsoft and Netscape Communications (Finn, 2000). Rather than being inherently liberatory or dystopian, technologies are the focus of ongoing argument and re-invention.

A digital ABC, after this analysis, need not be seen as a technology tied to a specific technical strategy for translation, broadcasting. It is a mutable object. This is not to say that its technical devices have no real properties, but that its development as an assemblage is contingent on the way digital communications possibilities are perceived, valued, spoken about and acted on. The ABC’s role and functions can be differently imagined when directed to different subjects, with differing degrees of communicative power, in different technocultural arrangements.

This proposition can be tested by considering how the ABC might govern users and user communities through interactive multimedia systems. In establishing the territory of my governmental analytics I set the scene for a broadly social constructivist interrogation of how the ABC employed interactive multimedia in the art of translation, and whether the results indicate new functions for it in an informational realm.

Interactive multimedia and the mutable object

I have chosen interactive multimedia relations as the object of my research to delineate two aspects of digital communications that point to a distinct approach to media governance. The ABC’s interest in multimedia speaks to the will to exert power over, or the will to govern, the impartiality of networked digital information with its recombinant and archival potential, and through this to remake the relations of media production in spatial and temporal terms. Interactivity refers to a new diagram for multimedial social relations based on individual agency, self-expression and reciprocal communications. I will define the notion of multimedia first, as a precursor to talking about its relation to the logic of interactivity.
Nicolas Negroponte, among others, recognised that multimedia was more than a combination of textual elements. It was synonymous with hypermedia, a layering and networking of information in non-linear, non-sequential structures. Interaction, he argued, “is implicit in all multimedia” (Negroponte, 1995: 70), an association that led to a relatively common early usage of the label interactive multimedia (Ambron and Hooper, 1988, Moulthrop, 1993, Baumann, 1998). While multimedia texts have not always abandoned narrative linearity the term still has strong spatial significations, notably as a variable set of relationships between objects, and the opening of narrative pathways rather than allegiance to traditional forms or genre conventions. To govern using multimedia is to be concerned with the production of spatial relationships between texts and text-producing subjects.

Databases, categories of data organised to enable search and retrieval, are particularly interesting because they underpin the operation of interactive multimedia systems and informational flows. They index textual objects so that users can easily access them, and organise those objects in relational fields so that in a web search, for example, a user can call up a multimedia text made of related, but distinct, objects. Databases make possible the linking of digital texts so that they appear hypertextual: that is, transcending the linear, space-bound and fixed attributes of physical texts (Landow, 2005). They also enable the dialogic exchanges in online forums and chat rooms. As such databases and their interfaces constrain the set of possibilities for both multimediality and textual exchange, or interactivity. They structure the possibilities for agency.

Databases, like any digital object, are also mutable because, for example, they are composed of numerical representations, can be manipulated algorithmically, have a modular structure, and allow automated information processing (Manovich, 2000: 27ff). Yet social and cultural knowledge of a digital system is essential to a critical interpretation of this mutability. Martin Lister and colleagues propose that digital media texts “tend towards a permanent state of flux” (Lister et al, 2003), because each piece of information may be coded and addressed by a computer processor in a way which invites its reconfiguration. However many human forces contribute to the degree of flux in a text or textual system like a website. Economic imperatives, political objectives and cultural expectations can all contribute to the ways digital objects are designed and used. Mutability may not be deemed a desirable outcome of

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9 Prefigured in poststructuralist literary theory by Roland Barthes’s (1977) ideal text of networked, polysemic meaning.
socio-technical relations, for example, where a digital text has a specific function eg. a software algorithm expected to perform a definite, circumscribed task. Changes to this text could then be perceived as illegal or damaging rather than creative or innovative, as in the opposing discourses on hacking (see Wark, 2004).

The ABC is (potentially) mutable due to the flexible characteristics of its digital materiality (infrastructure, software and information), and due to the changing social and cultural relations being hammered out through debate over its interactive multimedia development. This poses problems for a governmental researcher in defining not only the object but also the subjects of the research. For example, in an interactive system the distinctions between governing and governed, producer and consumer, the individual and the social may blur.

Forums, blogs (web logs) and other tools created for internet publishing and networking can enable both individual creativity and collaborative textual production, but there are many ways of reading this shift: as (unpaid) intellectual labour (Bifo, 2003), as a new social or ’gift’ modality of economic production (Benkler, 2006; Murdock, 2007), or as playful, fetishistic and subversive activity, where the simultaneity of use and exchange value derived in, say, collaborative game design generates unstable relations between productive subjects and consuming corporations (Banks, 2003b).

This thesis will argue that interactive multimedia systems are tactics for governing the mobile, creative and technate populations and their relations within an informational environment. The next four chapters will ask how governing might be fashioned in such systems, how subjectivity is altered, who determines the forms of conduct, and what ethical concerns manifest in the negotiation of these positions. They will empirically illustrate how concepts of multimediality and interactivity have been variably realised across a digital ABC. To begin that process though, some explanation is necessary of the debates surrounding interactivity, which operates as the key site of contest in PSB’s informational transformation. In PSB futures the ‘interactivity’ made possible between humans via computers is represented as both a threat and an opportunity, but rarely examined as a spectrum of opportunities for re-engineering social relations.
The logic of interactivity

The definition of interactivity has occupied many media researchers (see Rafaeli and Sudweeks, 1997; Jensen, 1998; Downes and McMillan, 2000; McMillan, 2002) but simply put involves user-to-document, user-to-system and user-to-user communicative interactions (McMillan 2002), and is most often applied to computer-mediated exchanges. Interactive systems allow time-shifting of content, that is where broadcasting delivers ‘synchronous’, or temporally bound, flows internetworked data storage and retrieval systems also enable greater ‘asynchronous’ use of media, at the individual’s convenience. Thus interactive broadcasting can increase content choice for those who access multiple information streams from a remote server, or use tools like personal video recorders and MP3 players to download program files for later consumption.

Seen in this way interactive systems could partly address public broadcasters’ conflict between being comprehensive and pursuing greater specialisation. However as Graham Murdock (2004) suggests, the interactive options available through digital television do not alter the fundamental power relations between program-makers and audiences evident in the top-down creative decision-making process. Giving audiences the ability to select from more professionalised content does not address the problems of representing endless plurality or of communicating across difference.

Michael Tracey (1998) predicted that the “emerging logic” of broadband interactivity and multichannel choice would see an accelerated consumerism, with PSBs bound to provide “the market with whatever the consumer might decide he or she needs” (Tracey 1998: 49). He disparaged the democratic possibilities of interactive media technologies, saying their “very nature constitutes a fundamental taking apart of that sense of the collective which is a precondition for public service broadcasting” (p. 264). Certainly some interactive multimedia, such as the web and third generation (3G) phone systems, are conditional access services which undermine the possibilities for universal service. However Tracey is influenced by theories of media alienation exemplified by sociologist David Holmes’ work (1998), which proposes that interactive communications systems join a continuum of media that abstract social relations and individuate populations.
Murdock (2005, 2007), in a more optimistic manner, describes the pursuit of online interaction in terms of ‘public good’ or ‘gift economy’ information exchange projects, the digital commons and thick citizenship.\(^\text{10}\) In 2004 he listed several ways in which use of online services could extend cultural rights, which he defines as universal democratic rights to information, knowledge, deliberative forums and cultural participation. His example was BBC Online, with its added news and current affairs detail, forums for learned and lay discussion, archives of past program materials and plans to incorporate and assist user-generated content.

Tracey’s pessimistic conception is drawn from information systems and design disciplines, where interactivity originally referred to simple human-computer/command-response interchanges rather than user-to-user exchanges. Murdock’s understanding has its origins in sociological studies, with their interest in interpersonal interactions, and active audience reception studies, and their concern with the relations between audience, text and institution. Jensen (1998: 201) defines interactivity as “a measure of a media’s [sic] potential ability to let the user exert an influence on the content and/or form of the mediated communication”. Other scholars, in a more humanist inversion, privilege individual agency and creative control over the structure and meaning of a text (Steuer, 1992, Laurel, 1993; Lowe & Hujanen, 2003).

Jonathon Steuer sees interactivity as “the extent to which users can participate in modifying the form and content of a mediated environment” (1992: 84). The degree of control available to this ‘user’ might be measured by at least two factors: the scope of interaction enabled by the interface or system design, indicated by the range of modalities offered, and the responsiveness of the communicant/s.\(^\text{11}\) Interactive modalities include:

- **Selective or consultational** interactivity operates where user choices are predetermined by the interface producer. This includes most navigational interactivity, on-demand audio and video, teletext and online voting. Silicon Valley veteran Clifford Stoll declares this mode as “interactive as a candy machine” (1995: 22). It is also called transmissional interactivity (Jensen, 1998, Meikle, 2002), after its similarity to the broadcast model.

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\(^{10}\) For a discussion of commons theory in relation to the Internet see Rennie and Young (2004).

\(^{11}\) Brenda Laurel (1993) suggests another model involving the frequency of interaction, the range of options available, the significance of user choices and the representational impact of those choices.
• *Adaptive* and *registrational* mechanisms (Jensen, 1998) allow the user to register preferences and customise aspects of the interface or message delivery eg. personalising features on news websites, Really Simple Syndication (RSS) feeds and simple game playing.

• *Dialogic* interactivity refers specifically to textual exchanges between users. At its simplest users can send each other pre-set messages, or ‘interpolate’, or write into, an existing text such as an SMS template or an online guestbook. It also includes real-time exchanges in forums and chatrooms, interchanges on social networking sites, or in locative games where online and real world players interact via phones, online and PDAs to fulfil a quest.

• *Simulative* or *immersive* interactivity sees users engaging in specific scenarios via simple Flash animations or immersive technologies, which promise a sensory engagement with a virtual environment.

• *Recombinant* or *reconfigurative* interactivity involves users altering interactive features or characteristics of the system, as in machinima, the art of modifying existing 3D video games engines to create new films and art works.

Despite the increasing attention given to interactivity, few PSB researchers distinguish between modalities and applications, and thus conflate these or distinguish one above others, depending on their discursive interest. The importance of reciprocity is hardly considered, except in market terms.

Typically Mike Bracken and Alex Balfour, both UK industry consultants in interactive media, argue that PSB involvement in “public service interactivity” (PSI) should be demand driven:

> The user base is increasingly mature and feels at ease with interaction, but interaction with each other, not just with public service broadcasters. The nations [sic] conversation is happening all around us in environments and message boards that PSIs cannot hope to match in terms of diversity and specificity. (Bracken and Balfour, 2004: 105)
They do not suggest how an organisation might divine the latent (or future) demand that exists for specific forms of content, or what role public service media might play in facilitating or integrating these conversations.

This thesis supports the need for more sophisticated research into user metrics to support well-grounded interactive media development, especially where audiences are involved in generating the ideas for program development. However it rejects a wholly demand-driven scenario. Such an approach leaves little room for innovation, especially in marginal areas, and does not address which forms of interactivity might be most appropriate for a public service media organisation to develop. It is exemplary of a ‘commodity discourse’ on interactivity, which is only one way of understanding the social value of this concept.

Discourses of interactivity

In the commodity discourse interactivity promises increasing individual choice and more control over media engagement, regardless of the creative control individuals might gain over representational contexts. Kahn ascribes the excitement generated by the “predescribed” interactive pathways of CD-ROM to “a culture animated by market based liberalism” (Kahn, 1996: 28).

In a material sense interactive individuals may be triply commodified through their consumption of products (and services to support that consumption), through the appropriation of their creative labour by media organisations (Humphreys, 2004; Humphreys et. al, 2005) and the monitoring of their interactive behaviours, which may lead to more targeted advertising and sales (Chung and Zhao, 2004; Nightingale, 2005). PSI should become more demand driven, according to Bracken and Balfour, because “It is relatively straightforward to identify which services users use, when they use them, how long they use them for, which services they use before or after, and where each user lives” (2004: 103). Yet the equally interesting questions of who the users are, why they are using the service and what they get out of it are still not transparent and so it is difficult to assess to what extent a public broadcaster might be fulfilling, say, its pedagogical obligations.
The commodity discourse of interactivity is often contrasted with the citizen discourse. In this field, audiences are re-imagined as active seekers of information, interested in deliberate political dialogue and commentary or referenda (Martin, 1999; Siapera, 2004). The scope for greater dialogic interaction has generated most interest in PSB literature because it promises more opportunities for recognition of difference and dissent, greater participation in the shaping of media agendas (Martin, 2002; Burns, 2002; Carpentier, 2003; Murdock, 2004) and new social and political relations (Coleman, 2004). During the study period broader research cited dialogic interaction as evidence of a democratised media, but without a grounded, detailed analysis of an interactive system’s political economics (Deuze, 2001; Kenney, Gorelik and Mwangi, 2000). Where a Habermasian analysis was applied, it did not always address the impossibility of ideal speech conditions or equal access to participation (Baoill, 2001; Schulz, 2000).

In exploring whether the ABC’s adoption of interactive multimedia has had some influence on its citizen-forming roles, I found it important to highlight its difficulties in realising democratic online communications. This type of critique is not well developed in media studies, but is essential to a critical reading of online citizenship, particularly in understanding the influence of mutual recognition and reciprocity to education and political participation. If PSB is to argue it activates citizenship through interactivity, or is part of a digital commons, it should be able to demonstrate how its governmental strategy is cyclic, inclusive and responsive. Steven Coleman gives a useful example of a failed online UK government project to encourage dialogue between citizens, Citizenspace, which became “a forum for empty ranting rather than meaningful consultation” (2004: 93) because of its lack of moderation and disconnection from the policy-making process.

To that end an enthusiasm for reading interactive texts in search of participatory indicators may be less effective than tracking collaborative action and its long-term social and cultural effects. This work provides an overview of the structuring and performance of interactive relations in specific sub-sites of ABC Online from 1995 until 2002, as a foundation for other scholars to conduct detailed analysis of the textual exchanges on those sites.

In Chapter 6 I consider, in a preliminary fashion, play as a motivation to dialogic interaction. There is little or no reference in digital PSB literature to this notion and what Tony Wilson (1999, 2002) refers to as the ludic, or playful, pursuit of interactivity. Yet Mary Flanagan
(2004) argues that play is a primary motivating factor for digital creativity, pointing to the proliferation of music, gaming and fan activities which have stimulated new media economy, including sampling, multiplayer games like *Everquest* and the *Sims Online*, eBay auctions and machinima. She places the pursuit of individualisation and personalisation at the heart of what she calls playculture, while others note how online play can be social (Banks, 2003a; Fritzon and Wrigstad, 2006).

Play, according Lash (2002) is a voluntary activity, in excess of necessity and therefore outside of economic reproduction, where utility is abandoned. Lash traces the roots of play to *agon*, the Greek notion of contest, and the possibility of winning gifts, honour or wisdom. He also traces its ritualistic assumption into the performance of art, then further formalised in Western representational culture. Through play, suggests Lash, we return to valuing the phenomenological and experience of the world, rather than authority or judgement. These observations suggest PSB may avoid a paternal approach to translation by foregrounding ludic interactivity.

The three discourses of interactivity discussed here – commodity, citizenship and play – are based on the ideal realisation of an active, creative media subject. The interactive subject mirrors the self-actualising individual of the advanced liberal political imagination (Rose, 1999; Barry, 2001). Such citizens may not be fully self-determining but have active capacities in monitoring their rights and responsibilities, making economic choices, fulfilling needs and desires and regulating their own conduct (Dean and Hindess, 1998). There are also expressive and social selves, evident in increasing participation in online forums and social networking over the period under study. Productive users learn from and take pleasure in acts of self-representation, information exchange and collaborative expression (Levy, 1997; Enli and Syvertsen, 2007).

If we return to Nikolas Rose’s proposition from Chapter 1 that in contemporary society an institution like the ABC is not merely governing individuals or populations, but also new associations of identity politics and lifestyle, it is important to look at how the institution attempts to engage the creative subjectivities and socialities of an informational environment. New media literature draws on various notions of users and user communities but is less clearly critical of their historical construction, indicating more detailed analysis is necessary for this project.
Constructing the user

There have been many attempts to name the active technological subject, beginning with Alvin Toffler’s (1980) creative, rights-oriented ‘prosumers’ or productive consumers. New media artist Brenda Laurel (2000) suggests the label ‘interactors’. Internet sociologist Nancy Baym (1995) prefers ‘participants’ and media studies researcher Axel Bruns (2007) speakers of the social, collaborative ‘produser’. The term adopted here is the more common ‘user’, which derives from the Latin *usus*, to use. This denoted both application or exercise but also social intercourse and familiarity, and later experience, skill, advantage, or profit. By the 11th century ‘use’ had almost lost its association with experience. It meant to employ for some purpose, more recently to consume or expend (OED, 1989: 350-357).

According to Sonia Livingstone (2004: 14) “people are always both interpreters of the media as text and users of the media as object”. However in the new media adoption of user, the oppositions of consumption and production appear more thoroughly resolved than in “active audiences”, who are more inclined to produce internal or social meaning than tradable artefacts (see Clarke, 2000). Productive users may also be more intensive consumers of technological goods and services and therefore need to cultivate technical skills. This is illustrated in the ironic adoption of the term prosumer by communications retailing, where it now refers to consumers who prefer professional standard features on their domestic electronic equipment.

The productive user is a relatively recent conception. In the 1960s the term user was applied to a growing number of non-specialists who time-shared large-scale computers with their creators and programmers. By the 1970s US programmers referred to users as ‘lusers’ because of their inability to modify the code or systems they were dependent on. The *Hacker’s Dictionary* still defines a user as “someone who uses a program from the outside, however skillfully, without getting into the internals of the program. One who reports bugs instead of just going ahead and fixing them” (Raymond 1993: 364). Computer design practices tended to project ideal user identities, skills, motives and goals. Designers then set limitations on the functionality of the machine according to their ideas of these “configured” or “imaginary” users, determining a bounded user/machine relationship (Woolgar, 1991). So just as broadcast audiences have been misconstrued as passive, invisible masses, in
information discourse users have been comprehensively othered – conceived as technically ignorant, dependent and often demographically homogenous.

‘User’ acquired a more active association with technical knowledge and productive capacities with the widespread domestication of personal communications technologies, from the transistor radio and personal computer to the MP3 player and Internet. Users required technical knowledge to choose, install and operate their technical prostheses, a pursuit which spawned new professions designed to give them this support such as specialist technical writers and technical officers. Lindsay (2003) describes these experts as “mediators” or individuals who limit the degree of arcane knowledge users need to develop about equipment installation and operations. In this thesis ABC program-makers too function as mediators in online environments. They develop standards and interface designs for user access, construct the rules of engagement for dialogue and moderate user interactions, acting as facilitators of choice and debate.

In their interactions with experts and mechanisms for information exchange, users can be considered reflexive – self-referential in their actions on their communicative environment (Lash and Urry, 1994: 115–116). In the ABC Online case they may be “self-reflexive” in their attempts to tell their own life narratives or “structurally reflexive” where they post comments on the website critiquing the institution’s representational practices. Yet not all ABC users engaged in these practices. Some only searched for information, or read as others wrote. These acts can also be considered forms of self-directed learning and ethical engagement, especially in light of the ABC’s historical associations. For this reason this research will not attempt to establish absolute categories of reflexivity or creativity among ABC users, but will rather consider the ways in which their expressive interactions affect the way in which subsequent user exchanges are structured, monitored and facilitated.

While Livingstone rejects the term user as “overly individualistic and instrumental” (2004: 24) Lash and Urry suggest that reflexive users negotiate meaning through their social practices, ethical engagements and sharing of information – in their production of cultural association (1994: 157–168). This is apparent in the online growth of self-organising user groups. They constitute a form of disorganisation which, for example, identifies common values for technology and technacy, and works alongside institutional power in reporting, debating and devising work-arounds for faulty, complex or restrictive technologies. Through
such groups, which are based on loose associations of individual expertise, users can acquire technical skills and over time may be more likely to become designers, producers, publishers, marketers, or distributors of technology (Lindsay, 2003).

User communities have been a central object of study for those interested in how individuals network and co-operate as political communities (Harcourt, 1999, Miekle, 2003) fandoms (Jenkins, 2002, 2003, 2006) creative associations (Banks, 2003a, 2003b; Humphreys, 2004; Humphreys et al, 2005) social networks (Garton, Haythornthwaite and Wellman, 1999; Lally, 2006) media forums (McKay & Rintel, 2000) and learning communities (Levy, 1997; Pallof and Pratt, 1999; Cole, 2000; Cuthbert, Clark & Linn, 2002). This thesis is concerned with the reasoning behind the ABC’s attempts to create user socialities or ‘communities of interest’ online as they can perform a range of functions, most obviously as commodification mechanisms but also in incorporating users’ experiences, opinions and information expertise into the process of translation and pedagogical instruction, extending its possible meanings.

For this reason in Chapter 6 I draw on social constructivist theories, which have informed much of the analysis of these communities. By applying constructivist principles to an analysis of ABC Online sites I will demonstrate that the ABC’s web publishing strategies display a less authoritarian pedagogy than broadcasting. Jeannette Lave and Etienne Wenger’s writing on situated learning and communities of practice (Lave and Wenger, 1991; Lave and Chaiklin, 1993; Wenger, 1999; Lesser and Storck, 2001) are most instructive in this process, because they suggest how users, through participation in textual exchange and collaborative action, might move from seeing themselves individual members of a loose learning group to pedagogues within a norm-based network; moving from disorganisation to organisation and from audience/spectator to becoming part of the ABC.

I am also interested in how this pursuit of an ethical, social engagement is tied to the production and negotiation of identity, and will spend some time documenting the actions of a particular media subject: the performative user.
Governing the performative user

Scott Lash proposes that power in an informational environment works not only through disciplinary pedagogy and discursive narrative (literature or scientific knowledge) but also through “the performativity of information” (2002: 25). While he is relatively silent here on how he defines performativity he appears to draw on, without quoting, the works of his one-time collaborator Bronislaw Szerszynski, and Foucauldian feminist theorist Judith Butler.

Butler took up John L. Austen’s speech act theory and his notion of performativity to explain how a subject establishes a sense of self through repeatedly acting out, vocalising and displaying her identity in terms of regulatory discourses (Butler, 1990, 1993, 1997). Performativity refers to two levels of expression: the performance of an appropriate, authentic social self and, through language and gesture, negotiating social relations (Szerszynski, 1999). Through this discursive process Butler suggests the subject either reinforces a normative sense of self, or perceives ways of being different, transgressive of that norm:

A subject only remains a subject through a reiteration or rearticulation of itself as a subject, and this dependency of the subject on repetition for coherence may constitute that subject’s incoherence, its incomplete character. This repetition thus becomes the non-place of subversion, the possibility of re-embodying of the subjectivating norm that can redirect its normativity (Butler, 1997: 99)

While Butler, after Stuart Hall, explores the formation of resistant or negotiated identities, her insights are useful in terms of considering how ABC users might come to perform self through dialogic interaction, establishing and recognising normative subjectivities in those interactions and forcing others to the margins.

Online users perform themselves monologically, through writing to websites or email lists, but also through dialogue with other users. This leaves open the possibility that they may not only represent and reproduce social order, but engage in a play of questioning and even disrupting it. For Lash situated, ongoing dialogic practices may be sites of presentation, the opportunity to shed one’s self-enclosed subjectivity and to be engaged in negotiated meaning rather than simply recognising difference (2002: 91).
For the ABC, the art of governing this multiple-source play of translation and the creative agency of users in this new environment has particular challenges not present in broadcasting, where the technological frames for ‘feedback’ have been normalised. On one hand, user domestication of technologies can produce useful and innovative outcomes, as in young people’s cultivation of mobile phone texting (Goggin, 2004b). On the other users may attempt to change, evade or disrupt system design intentions, as in the pursuit of games modification, which Curlew (2006) describes as “play out of bounds”. Allowing users scope to experiment and perform their technical expertise may increase the expression of new ideas and cultural practices or cause problems of control.

As internetworked groups expand, for example, finding the means to determine normative social behaviours and articulate governance strategies becomes a central concern (Dean, 2000). Such instances raise debates about the need for surveillance or restraint of user agencies through system modification. This work details some of the ABC’s tactics for controlling user interaction including registration, to prevent anonymous posting; rules for use of dialogic spaces; ‘moderation’, or delegated communications surveillance and modification; and exclusion from participation.

Control technologies, as Beninger (1986) argues, are responses to increased systemic complexity in both information and communications processing. They direct user interactions to conform to corporate economic goals and regulatory demands. Commerce balances the benefits of enabling user agency against the costs of managing the unruly user. But Reithian PSBs like the ABC face additional expectations: that they will provide public access to digital knowledge and participatory mechanisms, as a counter to the market tendency towards information control. The ABC’s exemplars also expressed the need to maintain ABC Online as a ‘safe’ public space for self-expression and debate (Burns, 2003).

The effect of this tension between agency and control is thought of here in classic terms of open and closed systems. That binary ideal, first articulated by communications scholar Harold Innes, will be used to examine distinctions between the operation of digital governmentality in commercial and PSB contexts.
Control: open and closed systems

Innis (1951) argued that communications technologies exhibited a bias towards centralisation or decentralisation, hierarchy or distributed power and open or closed systems of knowledge production. In saying this he opposed the space-binding technologies of control (print, photography) with the time-binding technologies of shared meaning (orality, social ritual). While this assumption has been superseded by more sophisticated, integrative accounts of time-space relations (Couldry and McCarthy, 2004) Innis’s spatial association has retained its potency.12

Open digital media systems are those that have fewer user controls and offer more diverse domestication strategies than closed systems, a contrast also seen in proprietary and non-proprietary online technologies (Kilker, 2003). In new media research, ‘open’ signals other ideas: unfettered access to information; mutually agreed communication architectures, as in ‘open standards’; and support of participation and self-governance, rather than disciplinary or hierarchical approaches, as in the practices of the ‘open source’ software movement which created the Linux operating system. Reithian PSBs interested in open rather than closed system design might choose to eschew pay-per-view mechanisms, to adopt universally accessible non-proprietary platforms or operating systems and universal protocols as exemplified by the web standards.

Yet openness too is a highly contested regime of truth, which may not have an isomorphic relationship with historical notions of public or access. There are debates, for example, within the open source movement about the extent to which individuals should have rights over their collaborative creation’s use or development. So in terms of its role in universal service the interactive ABC’s systemic openness must be re-examined in terms of structure and practices of communication: does it provide access to cultural resources and is it inclusive, rather than exclusive, of users as participants in cultural life? An ethics of inclusion for example, might include the creation of mutually agreed dialogic practices that ensure the ‘public good’ status of a system can be preserved. Journalist Margot Kingston, founder of webdiary, Australia’s first mainstream interactive newspaper blog, writes that she was provoked to develop an

12 Assisted perhaps by media studies interest in semiotics and semiotician Umberto Eco’s adoption of the open/closed binary to describe the potential range of interpretation in a textual reading.
ethical code designed to increase users trust in her integrity and accountability and to facilitate greater reciprocity (Kingston, 2003).

Research done for this study revealed a less clearly articulated set of dialogic ethics in an interactive ABC, stretched across editorial and production guidelines, privacy policy, user registration sites, web forum use instructions, and the very occasional frequently asked questions (FAQ) webpage. My reading of these documents reveals how multimedia producers interpreted the ABC’s role in facilitating access and dialogue, a project I begin shortly by analysing the production of online space.

By moving toward greater user intervention in the creation of its textuality, a media organisation like the ABC may appear less a corporate entity than a network of linked individuals, groups and systems. Lash contends that in such internetworked spaces the focus of cultural studies “would no longer be texts or narratives, or even signs or audiences or authors. The subject matter of cultural studies would become digital objects” (Lash 2002: 125). Such objects, he proposes are three, rather than two-dimensional, spaces in which to perform culture, to present and encounter rather than just observe and consider. Digital PSB could potentially become such a mutable object, a space we inhabit and construct, through its institutionalisation of interactive multimedia publishing.

Internetworked multimedia technologies such as the web are the logical communicative complement to broadcasting in what sociologist Andrew Barry (2001: 3–4) describes as the emerging political mode of the technological society: that which demands labour market mobility, technological competence, self-governance and enterprise from its autonomous citizens. Interactive multimedia publishing is not proposed here, as some scholars fear, as a replacement for PSB (see Lowe and Hujuanen, 2003), but an addition to it. Broadcasting will remain an effective vehicle of mass translation. Interactive multimedia are an important new means of engaging the individual, and in its networked forms, of connecting globally dispersed populations. They redraw social relations in ways that may expand the meaning of public service.

How then to interpret those relations? Again I propose they can usefully be understood as technocultural, and analysed around the institutionalisation of new modes for communication and cultural production.
Technoculture revisited

As mentioned earlier, in the decade studied the ABC Board sanctioned the development of four main forms of interactive multimedia service delivery: CD-ROM, the web via narrowband then broadband internet, datacasting and interactive television. Australian government and industry reports of the 1990s depicted these technologies in a linear progression from least to most sophisticated, with industry on an unswerving course towards greater processing power and more complete modes of communication. This was not always the case. Many CD-ROMs still demonstrate greater multimedia capacity and more complex interactivity than web pages. Digital television currently offers less complex forms of adaptive, dialogic, simulative and recombinant interaction than the web.

Rather than drawing an ideal model of digital governmentality around all or just one of these technologies, in the following chapters I will present a series of new tactics of interactive governance, the territories in which they were employed and the discourses which were linked to them. Just as with Chapter 2: Network and Chapter 3: Domain, the titles of each chapter refer to a series of significant discursive constructs in new media studies that indicate how interactive multimedia influence distinct ways of interrelating, being, and producing culture.

Zone examines the production of webspace, Forum, the use of dialogic mechanisms as pedagogical tools, Database, the mediation of citizenship through information access, and Incubator, the ABC’s role in Australia’s new media industry research and development strategy. As this thesis progresses each of these technocultural concepts will become a site for exploring the politics of the ABC’s digitalisation, its interactive multimedia ambitions and their consequences. A technocultural analysis, which surveys socio-technical processes, their cultural mediation and their production of culture, helps to avoid an instrumental approach to the question of how digital technology might be implicated in organisational change.

The coming chapters document an extension of the ABC’s accepted pedagogical role into the informational era. Here the ABC’s drive to develop new technologies could be read simply as an experiment in providing populations with access to certain forms of digital information. Alternatively it could be seen in Barry’s terms as embracing a political preoccupation with scientific and technological citizenship (2001: 127); as nurturing the capacity of individuals to
make informed judgements about scientific or technical subjects in order to exercise choice, gathering information about this process and harnessing it to further foster “agency, experimentation and enterprise, thus enhancing the self-governing capacities of the citizen” (2001: 135).

Under the conditions of cultivating active engagement with the ABC, the program-maker’s task extended beyond the simple dissemination of information or technical know-how, to the formation of self-directed, creative media subjects. Producer motives and ethics raise further questions about the future role of the ABC. In what ways were broadcast audiences re-imagined as users of technology? In what ways were they allowed to be active? How did their activities require governance and what impact did this have on the ABC’s activities and its raison d’être?

Conclusion

The digital appears as a modernist concept central to the neo-liberal de-regulation of communications, signifying infinite productive capacity, greater choice and more complete translation through technological change. The digitalisation of PSB is an economic response to this developing dynamic, but also a rejection of broadcasting’s increasing redundancy as a tactic of national governance. Through the digital PSB seeks reinvention and relevance. Yet digital broadcasting is an intensification of previous techniques of governing, rather than a means of exploiting the mutability of digital information, architectures and networks.

Read as an alternative diagram for public service translation, interactive multimedia systems invite other conceptions of relationships between people and media objects. As the birth of The Lab indicated web publishing can provoke a different governmentality, which values and activates less disciplinary relationships than operated in broadcasting. This perspective does not arrive fully formed but is borne of interactions with users, and must be alert to the impact of control technologies on user agency, creativity and sociality.

An interactive system can be fashioned to enable a spectrum of choice, distributed productivity, reciprocal communication and negotiated control. Where openness is ideally allied with information exchange, reciprocity, and mutually constructed learning, an industrial
environment of increasing competition favours closed systems, information commodification, registration, and self-directed knowledge formation. This means there can be no natural or assumed gravitation of PSB towards an open system. This would depend on broadcasters being able to articulate how this aim furthers the contemporary political rationale and the state’s ongoing project of building national coherence in a global media ecology.

As socially mutable objects, interactive multimedia systems need to be studied holistically, beginning with the technological shaping process and the design assumptions held by differing cultures of production, actors and non-actors. How questions of control are negotiated and settled in digital systems will reflect both differing rationales for governance and debates about what types of conduct might be valuable and appropriate. The choice between open and closed needs to be further investigated in light of existing power relations. In this research it will become obvious how the Reithian legacy of patrician, impartial, accountable service does impact on attitudes to, and expectations of, a digital transformation.

The coming chapters will examine how interactive multimedia have been used to re-imagine the role of the ABC, as a form of national representation, as a pedagogical instrument and an economic instrument. They will deal with three interactive technologies: web publishing, datacasting and interactive television. However they will not explore the latter two at length because they belong to the broadcast lineage of governmentality. I will demonstrate that they offer fewer opportunities for constructing and managing the contemporary liberal media subject than the web, and less incentive to user performance and creativity.

As the 1990s spilled into the new millennium, ABC executives and program-makers would return to ABC Online for ideas on production and organisational innovation, considering various ways in which the ABC might consolidate or extend its role and functions. Chapter 5 looks at the ABC’s primary task of creating a national space of translation. It turns from the pursuit of global audiences that opened Chapter 3 to the expansion of regional online production, tracking the ABC’s rediscovery of localism, community and a more complex national imaginary.
Space is not a scientific object removed from ideology or politics; it has always been politically strategic. (Lefebvre, 1976: 31)

ABC Online was a new strategy for constructing the space of government that facilitated more extended networks of translation. It consolidated the ABC’s reach nationally and expanded it internationally, by helping program-makers reconnect a disparate organisation and dispersed populations. In turn increased domestic internet use impacted the ABC’s informational development in other ways. First the web became the focus for alliances between Australian and international media corporations, which intensified competition and pushed the ABC to develop distinctive online services. Second the internet supported an expansion of self-publishing and varied expressions of cultural identity, which challenged the ABC to increase its representative scope. As the 1990s closed ABC executives saw the need to further territorialise the organisation’s interests in this informational zone. This chapter examines the ABC’s changing role in the creation of new national and local webspaces.

Many stories can be told about how ABC Online re-territorialised the ABC, establishing novel connections between institution, broadcast networks, audiences and users.1 ABC Online reached an enthusiastic Australian diaspora (Naughton, 1999) and was discovered by curious non-national users. Web publishing created a global audience for Triple J youth radio and a domestic audience for the international shortwave service, Radio Australia (Burns, 2003). ABC Online eventually became host to online communities with no direct attachment to existing broadcast programming (Martin, 2002).

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1 In discussing re-territorialisation Du Gay (1997: 38) speaks only of the relationship “between media and territory”, but in governmental terms space is primarily defined in order to manage a set of objects and relations within those boundaries.
ABC Online’s modelling of first national and then local web spaces offers particular insight into its remediation of its Charter obligation to broadcast “programs that contribute to a sense of national identity and inform and entertain, and reflect the cultural diversity of, the Australian community” (Appendix 1). Yet while national and local representations can function as a counterpoint to global flows (Robertson, 1995; Hutchins, 2005), place-based and communitarian forms of localism may complicate expressions of national unity.

Based on the ABC Online experience, I will argue that the inclusion of localism in national schemas of government requires two moves. First it demands the creation of a unified zone of communication with standards and protocols for interchange between heterogenous users, but which does not suppress the expression of difference. Second this zone functions more effectively to connect centre and peripheries where it is able to support reciprocal communicative techniques that establish relations of proximity, or connection in time and space, between place-bound subjects and sites of representative power. This analysis suggests that given the resources to support localism ABC Online can act as a more inclusive and responsive instrument of national translation than the ABC’s broadcast services.

**Becoming Local**

Earlier I indicated that Brian Johns initially regarded ABC Online as an opportunity to establish a global profile. This outward focus was consonant with the neo-liberal extension of economic relations into trans-national and global territories, and a prevalent cyberlibertarian portrayal of the Internet as a new frontier, an infinite terrain of symbolic circulation. According to the ABC’s 1998 editorial policies, ABC Online was to service domestic and overseas audiences “by providing a distinctly Australian perspective to local, national and international activities” (ABC 1998a: 52). ABC Online was to be a national referent for Australians operating in the space of flows and a cultural beachhead in the international mediascape. It would give “Australian audiences a sense of place in the global information age” (ABC, 2000a: 2).
Operationally, this explicit global turn was relatively short-lived. The Mansfield inquiry and the entry of international media corporations into the Australian market focussed ABC executives on bolstering the ABC’s domestic relevance (Heriot interview, 2005). In particular Mansfield recommended a revised ABC Charter should emphasise the provision of regional production sites and programming with a regional focus, so that the ABC had “a clear obligation” to reflect the diversity of Australian life in the bush.

Like radio and television before it, ABC Online had been slow to deliver on this obligation. Although 36 per cent of Australians lived outside the capital cities (Australian Bureau of Statistics, 2002) ABC Online had been largely an urban construct. Until mid 1999 there were no web presences for the ABC’s regional radio stations and only one dedicated online producer outside the metropolitan centres. ABC Online was not judged unimportant to regional users but there were political and economic difficulties in funding regional web production.2 Until late 2002 ABC Online presented a richer portrait of urban than non-urban life, although that would later change with a targeted injection of federal funding.

Becoming local represented a greater problem of governance for ABC Online than becoming national or global. The spatialisation of localism was, as I will demonstrate, deeply influenced by existing cultural, political and socio-economic inequities. It also demonstrated more generalised challenges in the standardisation of techniques to encourage, monitor and guide autonomous users’ movements through networked space, in the management of reciprocity and in policing the ABC’s institutional boundaries. However to show how ABC Online developed as a technocultural mediation of space it is necessary to consider how space can be both politically and socially shaped.

2 At least one survey showed regional users accessing ABC Online more than city users (Nielsen/ NetRatings, 2002).
Space and place

In classical philosophy space is a cognitive precondition to knowledge and Being in the world. However for Gaston Bachelard, Henri Lefebvre, Foucault and other poststructuralists it became a way of investigating the power relations generated by our movement through the world (Munt, 2001). For example, in Henri Lebfevre’s *The Production of Space* (1991) space emerges as a wholly social and political construct. Lebfevre’s analysis of spatial thought has three conceptual axes, which I have applied to an earlier comparison of radio and web space (Martin and Wilson, 2002). Space is *lived*, or socially produced and performed; *perceived*, through “representational spaces” such as churches and halls which are continuous with tactile, lived practice (p. 40ff); and finally *conceived*, separated from social space in order to dominate the life-world, as in maps of territories to be colonised. In what Lash (2002) defines as a naturalist schema, Lebfevre opposes lived space or ‘habitus’ and its symbolic expression through use and artistic description, to purely discursive representations of space. The latter, he argues, are tied to the dominant relations of production and crush the reproduction of social space with their ideological force.

Trying to represent the nation online then might appear an abstract and fruitless pursuit in the face of intensified global (or at least transnational) relations. It has been argued that where the relations of production are delocalised by global exchanges, the national diminishes in importance vis-a-vis the space of flows (Morley and Robins, 1995; Castells, 1996). Yet Morley and Robins also note that in response the local has acquired a growing symbolic importance – associated not only with geographic location, but also with place as a manifestation of shared culture, community and social attachment through belonging. Having a sense of place invokes habitual assumptions about social practice and the confident possibility of action (Casey, 1998). So the development of ABC Online should not be read simply as a symptom of the symbolic nation in decline, a defensive reaction to forces of global homogeneity. It can also be seen as an attempt to establish new, lived connections between the local, national and global.

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3 As distinct from Pierre Bourdieu’s ‘habitus’, which refers to the durable, socially acquired system of dispositions that govern an individual’s perceptions, attitudes and actions.

4 Lebfevre opposes, for example the communitarian symbolism of Frank Lloyd Wright’s architecture to le Corbusier’s scientific, intellectualised representation of space.
An interest in cyber-nationalism or localism might rightly also be seen as a retreat from infinite abstract space into the known (Buchanan, 1999), a reassertion of tradition. Cast against global signs and symbols, well-worn national ideals can gain renewed cultural resonance, as could be seen in the opening to Sydney’s 2000 Olympic games. There the Australian bush figured prominently as a site of heroism and authentic social relations, as did a more contemporary pastoral ideal in the settlement of the suburbs. In the Olympian march of Hawaiian shirt-clad men and their lawnmowers, the suburban backyard clearly compressed those myths, “the egalitarian culture of the city and the rural ethos of the outback”, into a new locus of colonisation (Porcari and Zellner, 1997). Such realignments of spatial meaning have influenced the textual development of ABC Online and its political expression of space.

During the late 1990s place-based metaphors like the backyard were seen as one way of establishing a recognisable, familiar identity for ABC web gateways.\(^5\) When the ABC first tried to produce a local online gateway, tied to its local radio network, radio managers and website producers searched for a name that would convey the intimacy and egalitarian veneer of local radio, ‘the chat over the back fence’. Backyards were seen as a space of commonality, an accepting location. The Backyard “was…a name we thought wouldn’t offend people, a working title that kept working” (Robinson interview, 2000).

Yet while The Backyard neatly reflected the increasing suburbanisation of rural Australia, the name also promoted a non-Indigenous notion of private property, in line with then Prime Minister John Howard’s nostalgic political ideals. It could be seen, as I have argued elsewhere, as a Eurocentric, exclusive, even threatened notion of space, “for in the media hysteria surrounding the Mabo and Wik debates about native title to land, tabloid media represented Aborigines as intent on repossessing white Australia’s backyards” (Martin and Wilson, 2002: 53).\(^6\) The distinction between spaces of representation and oppressive representations of space is then, as Lebfevre does acknowledge, not simple or stable. It is complicated by cultural political and economic dynamics, by competing claims on lived space. Questions of inclusion become more complex when considering the production of new media objects as spaces of governance.

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\(^5\) Others included The Lab and The Playground.

\(^6\) See also Stephen Muecke (1999: 128-129).
Space is a critical concept to the study of governmentality, because processes of definition and spatialisation are marshalled to concretise problems and delineate a set of relations to be managed. Manifesting the site of a problem is the first step in devising ways to approach its management. Nikolas Rose cogently disputes Lefebvre’s absolute opposition of “the lived and the represented, the experienced and the conceptualised, the concrete and the abstract” (1999: 32). He argues that the discursive abstract representation of space (say, as a nation or even a generic backyard) is not divorced from the social, but springs from experience, from lived practices of understanding, calculation and action that seek to extend the possibilities of perception. This situated process of imagination, or “modelling” (1999: 37–40), can then be inscribed by discursive mechanisms as “an intelligible field with specifiable limits and particular characteristics, and whose component parts are linked together in some more or less systematic manner by forces, attractions and coexistences” (p. 33).

Following Rose’s lead the spatialisation of governmentality can be analysed in three dimensions: by studying the visualisation of a territory and its associated problematic; by considering the ways objects were surveyed and rendered visible and measurable within those boundaries; and finally by understanding the biological and economic principles on which space has been modelled. Charting the development of ABC Online as a public web service begins with understanding the general challenges of representing the national in networked multimedial space.

Zone: the space of government

As I indicated in the previous chapter new media forms of representation are increasingly spatialised. Lash (2002) discusses this shift in terms of three-dimensional space, but internetworked multimedia are negotiated through four-dimensional grids of space-time. This hypertextual space is partly a user-constructed relation, shaped by movements between sites local to global, city to country, region to region, community to community, but also carefully constructed by corporate interests.

Users’ trajectories through this object space are the site of industrial tactics designed to control and normalise their informational behaviours. As online information has multiplied to become surplus and disorderly, space/time relations have been mediated through technologies
of information selection and transfer, such as search engines. These direct access to certain types of information or techniques of network navigation in an attempt to regulate spatial behaviours and determine commodifiable action. Exerting control over user movements is a particular exercise of governmentality.

In producing ABC Online, staff needed to create a space that promoted its core broadcast functions and was congruent with the organisation’s Charter obligations. It had to be identifiably national (and corporate) yet accessible to, and representative of, its multiple publics. In line with the ABC’s universal service objective producers had to ensure the broadest possible access to online content and participatory mechanisms, and then manage user movement and interchange in a manner consistent with organisational roles and exemplary ethics. Creating such a unified zone of communication in internetworked object space also relied on developing standards for content development and use to accommodate heterogenous users.

Facilitating user agency introduced a new set of questions for ABC producers, not in the least how to make their hypertextual space intelligible and coherent. Internetwork infrastructures and organisational structure had to be reified in screen space, with interface design and hyperlinking operating as integral aspects of translation. Managing data exchanges between internal and external systems was a highly technical matter, and yet text retrieval and navigational features had to be rendered in a manner that was intuitive to the every-user.

Problems of access to object space were complemented by problems of control over user behaviour in and around that space. Web users were cognitively nomadic, yet producers wanted to retain their attentions within a site space for pedagogic and competitive reasons. Users had differing ethics of online communication, but producers needed to facilitate civil dialogue. Technate users would sometimes try to alter or extend their web space by creating and linking objects, increasing the chance of unpredictable interventions in organisational spatiality. The first ABC local presence, a site dedicated to Melbourne’s 3LO radio station, was an unauthorised fan creation.
The tensions between access and control characteristic of all interactive forms are heightened online. The web was designed as a fluid zone, evolving from a play between producer and user, design and adoption, objectives and desires.\(^7\) If political and cultural struggles are increasingly fought out in such immanent, or perceived and self-configured, spaces of representation (Lash, 2002) the question for this thesis is whether ABC Online can be understood as a more inclusive space for these debates (at least where they were conducted in English) than the ABC’s broadcast networks.\(^8\) Could it articulate more diverse possibilities for finding oneself in national identity?

This can be answered in part by exploring how ABC web producers conceived and constructed online space, and how this governmental process diverged from its previous practices of spatial production. In this the growth of ABC Online illustrates an historic spatial problem for the ABC, the representation of regionality and localism.

The beginning of geography

In his 1998 ‘digital for all’ campaign Brian Johns identified regional, or non-metropolitan, Australia as an area deserving of better coverage and greater local production capacity, while carefully avoiding any suggestion that it was already disadvantaged in these respects. “There is not a city XI and a country XI,” he said. “The ABC is the national public broadcaster and, as such, we should not be dividing our city and regional audience” (Johns, 1998c).

To the contrary though, in its early days ABC Online showed clear lines of geographic division. In 1998 there was very little regional content online. *News Online* posted some regional news stories, *Bush Telegraph* covered national rural and agricultural information and *Message Stick* covered Indigenous issues, but web publishing had yet to be substantially developed outside of the cities. Neither ABC Online nor ABC Multimedia had substantially decentralised their operations beyond the ABC’s urban centres. Only the metropolitan stations in the ABC’s local radio network had official websites.\(^9\) Even after the launch of *The Backyard*, the gateway to a network of local ABC websites, for several more years regional

\(^7\) Peer-to-peer networks are the epitome of such ephemeral user defined space – existing only in terms of who is online at a given time.

\(^8\) Only Radio Australia, the ABC’s overseas service, offered multilingual web publishing.

\(^9\) Some regional staff had briefly set up their own sites in the interim including ABC Mid North Coast NSW (2KPTR).
web content remained less interactive and multimedial than that of metropolitan sites (Martin and Wilson, 2002).

Plans had been laid to equip all local stations for web production but there were no funds to realise Johns’s vision of them as multimedia centres. However Johns could not ask the state for digitalisation funds by admitting regional Australians were disadvantaged in the provision and production of online content. Post Mansfield, ABC Online was not a funding priority and its failure to service a key constituency would have left him, and it, vulnerable to predictable political attack.

Arguments over levels of ABC service to regional areas are as old as the organisation. Although the ABC’s charter objective is to serve all Australians, historically the politics of broadcast resource distribution have favoured urban Australians. The organisation’s administrative and production centres are based in the mainland state capital cities of Sydney, Melbourne, Brisbane, Adelaide, Perth and Hobart. This federalist structure has shaped much of the ABC’s mediation of the nation. It took many years for some services such as Radio National and Triple J youth radio to be extended beyond urban areas.

Towards the end of the 20th century ABC Television became more centralised and standardised nationally. Conversely ABC Radio maintained its state-based management structure, which paid varying degrees of attention to regional listeners, and became more local. Political pressure from the regions, expressed strongly in the Dix inquiry of the 1980s, had forced the ABC to extend its national network coverage and to establish more non-urban local operations. Efforts were made to deliver content “in a more flexible and diffused manner, sensitive to population concentrations” (Martin & Wilson, 2002: 46). From 1985 resources were diverted from urban operations to create a Second Regional Radio Network carrying Radio National, Classic FM and Triple J, and twelve new regional stations.

Even with this shift the provision of regional broadcasting continued to be largely subordinate to city, state and federal designs. Policies, resource allocations, information flows and production values were all determined in an urban (and increasingly Sydney) context.

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10 See Inglis, 1983.
National programming was almost exclusively produced in the cities.\textsuperscript{11} In 1999 the proportion of strictly local material on ABC local regional radio stations was also low, with 50–60 per cent of most schedules being sourced nationally, and as little as 15 per cent being local content (Communications Law Centre, 1999: 25). There was no mechanism for city dwellers to hear most of the programming created in the bush, with the exception of regional news items, although these were selected and prioritised by city-based news editors. Information flowed predominantly from urban centres to rural peripheries.

So although Stephen Muecke (1999) argues that to be Australian means to “imagine an anterior” rather than a frontier, to focus on the outback rather than a coastal face, during Brian Johns’s time as managing director the ABC’s broadcast nation was strongly exterior. In early attempts to mirror that broadcast content online, ABC webspace replicated the organisation’s – and to some extent the state’s – metro-centricity.

Creating the zone

The slow development of regional web space was also due to the difficulties of developing a robust data network over an uneven national telecommunications infrastructure. In 1998 one of two pilot cross-media producers, Brad Barber, had been appointed to Albany in Western Australia, but the digital network capacity was still so limited he had to courier multimedia content on discs to urban centres.\textsuperscript{12} Before local web publishing could commence the ABC had to commission a $4 million upgrade to its regional voice and data networks so that regional radio stations had both internet and intranet access.\textsuperscript{13}

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\textsuperscript{11} There were occasional exceptions; documentaries produced in rural areas, and networked radio segments such as Radio National’s \textit{Media Report}, which was produced from ABC Far North Coast in Lismore, NSW between 2000 and 2003.

\textsuperscript{12} Another multimedia pilot was the \textit{Radio Pictures} project where staff in several regional Western Australian radio stations were given digital video cameras and training to make television programs. Although the resulting programs had relatively banal production values the project was praised in ABC reports (ABC, 1999a, 1999d) for its demonstration of cross-media production and local knowledge.

\textsuperscript{13} See also aspects of the upgrade detailed to the Victorian government (ABC, 1999e). The upgrade did not, however, deliver broadband video streaming capacity.
Following this ABC ITS then installed 230 PCs in regional radio stations with local print and file servers, linking them within workplaces into local area networks, and to capital cities via wide area networks. From there, stations were connected to the Internet backbone via the ABC’s sole access point in Sydney (Swan interview, 2000). This laid the groundwork for the launch of *The Backyard* network in September 1999, four years after the creation of ABC Online.

In this sense the ABC’s refocussing on the local re-worked a persistent problem of spatial governance in Australian communications – the need to connect populations over distance. In order for ABC Online to function as an effective national space of government it had to be developed as a technological zone, an area in which technical capabilities are uniform from one site to the next (Barry, 2001). Hardware, software and training had to be standardised across its federal structure. For a ‘zone of translation’ to operate web producers also had to research user capacities, developing policies on browser standards, for example, to ensure that site design and content were equally legible and accessible to all.

In this respect regional users presented a particular problem for multimedia designers, as telecommunications deregulation had failed to deliver equitable outcomes to rural and regional areas (Barr, 2000a). These had lower standards of telecommunications infrastructure and service delivery than cities, a finding of the 2000 Besley inquiry into Telstra’s regional service levels (Telecommunications Service Inquiry, 2000). Even by mid 2003 the Coalition government showed little interest in establishing a national parity for data transmission speeds, submitting that 19.2kbps was an acceptable minimum outside urban areas (Clarke, 2004: 38).

Delivering multimedia content within an acceptable timeframe under these conditions dictated specific design constraints: use of small file sizes, simple images, short animations and minimal use of frames (ABC New Media, 2002). Regional users’ slower rates of internet connection were a measure of difference that was identifiable and addressable – they determined the ABC’s default web authoring standards.

Finding techniques to manage user diversity played a large part in the complexity of spatial planning. In pre-*Backyard* national projects, for example, it is possible to see other changes to spatial conception emerging from interactions with users. Although ABC producers catered to
different user demographics, by incorporating user comment and monitoring web use they developed an awareness of localised user interests, capacities and agencies, which then shaped access and control regimes. This process is discernible in the ABC’s online coverage of the 1998 Constitutional Convention, a national assembly held to debate if, when and how Australia should become a republic rather than a constitutional monarchy.

Modelling webspace

The Constitutional Convention or Con Con site <http://www.abc.net.au/concon/> (Figure 8) was meant to be an educational resource for upper secondary students studying participatory democracy, a way of making less abstract ideas about nation and governance. The site producer Ian Vaile saw it as an opportunity to help them explore how national identity is expressed through systems of government (Vaile interview, 1998). The commissioned site included a thematic comparison of the Australian constitution to those of ten other countries, and Simcon, a Shockwave game where users could create their own constitution from a variety of elements and then examine the society they had created. They could end up with “a ruthless totalitarian dictatorship, or even a multiparty religious monarchy. It’s entirely up to you whether your citizens live in prosperous freedom or miserable oppression and poverty” (ABC Online, 1997).

Vaile said that in production he had rapidly realised the site would have a broader appeal if it also integrated conference debate and support information (delegate list, agendas, and transcripts), news and current affairs coverage, a diversity of political commentary including diaries from the four youngest delegates and a guestbook for user commentary. So the Con Con site evolved as both an information source and an arena for exploring and voicing different ideas about political process.

The Con Con site was ABC Online’s most feature rich online offering at the time and user experiences complicated ideas about the “imaginary user” (Woolgar, 1991), the proxy around which site design was developed, then conceived simply as a naive narrowband web user employing the most widely distributed forms of software. Producers had mobilised several multimedia devices to involve users in spatialised representations of the event, including IPIX 360 degree navigable pictures of the convention and a live chat room set up using Palace
software, which enabled users and panel guests to interact as avatars in a virtual space. This ran contrary to an early ABC Online design rule, which was to keep interfaces as simple as possible, not introducing new tools until they were widely adopted (Byrne interview, 1997). Yet these features were less used than expected, perhaps because they required users to download plug-ins, additional files which extended the operational capabilities of their browsers. Site users reported many interaction problems including browser incompatibilities, the failure of tables to translate to Unix platforms, and a lack of provision for blind users employing text-based browsers (Vaile interview, 1998).
Figure removed due to copyright restrictions
Users showed an unexpected interest in audio streaming of the convention debate, the most requested site file, and the game Simcon, the second most popular feature. The Con Con stream serviced those both who could not access a radio and those who could not pick up NewsRadio, the sole broadcaster of the live debate. ABC NewsRadio only transmitted to the capital cities and Newcastle. Vaile argued Simcon users enjoyed the complexity of the game and the surprise of receiving their results, returning to discover the outcomes of different choice permutations. Humour and play helped convey what might otherwise have been seen as dry, difficult concepts. The web’s flexibility as a publishing medium allowed these different genres to coexist and cross-reference each other to furnish a more polysemic translation space than that of broadcasting.

Guestbook use indicated strong interest in self-expression and reciprocal communications. It was meant to allow users to ask broadcasters questions or give feedback on their experience. Yet postings increased during the convention as users, spurred by television and radio coverage, began to interpret it as a direct means of participating in the convention (Vaile interview, 1998). During the first week, the Australian Republican Movement came out against the popular election of a president. In response, convention delegate and magistrate Pat O’Shane called for a showing of people power, exhorting Australians to let the convention know of their dissatisfaction at the move. Ian Vaile notes that while the Con Con site clearly indicated how to get in touch with the convention, with a hotlinked email address for the secretariat, and the guestbook had a disclaimer stating the site had no official connection with convention, many online users chose to post there in response to O’Shane’s comments.

The guestbook discussion was a more immediate and proximate, or perceptually and affectively closer, experience of the convention than writing a letter, although there was no face-to-face interaction. It was a public space with fewer editorial restrictions on participation or presentation than letters to the editor or radio talkback. In these respects it localised and opened up what was for users a disembedded, distant and exclusive process.

However this dialogic interaction had a downside. All posts had displayed the users’ return email addresses, in order to discourage defamatory or obscene postings. This left users open to uninvited contact:
We found some unscrupulous types had been collecting those email addresses and 'spamming' them...mostly endorsing particular political points of view, in one case soliciting for donations, in another case this UFO nutter had written to everyone...Many people thought the ABC was complicit in that spamming...and this created a lot of ill will amongst the people who had contributed in good faith. I had a lot of bridge building to do in the aftermath, sending messages out explaining we had nothing to do with it, and posting a disclaimer on the site. (Vaile interview, 1999)

Clearly some users were unaware of the implications of posting their addresses, including their exposure to the “fan-out” or iterative potential of email (Stefik, 1996: 118–119). Vaile suggested that because the ABC was seen to have editorial control over its broadcast media, users assumed this control would extend to ABC Online. The maintenance of privacy and network security had been pre-existing bureaucratic concerns, but from this moment the ‘safety’ of the ABC’s online spaces became an abiding production issue.

Creating safe webspaces was later regarded as a primary means of securing public trust and satisfaction in an online ABC (ABC, 1999b). Burns (2003) describes this in terms of a governmental tension between security and liberty. The ABC had to perform its part of an ethical relationship with its user/citizens by providing a safe, reliable context for users to practice autonomous information gathering and production. So producers extended controls on dialogic interaction to prescribe appropriate user behaviours. In later sites email addresses were removed from posts, privileging monitored public dialogue over interpersonal connections. Forum software was developed in-house to allow ABC moderation, or discursive surveillance and editing, of synchronous communications. Site disclaimers were posted on forum pages warning that any message which was ‘libellous, defamatory, obscene, abusive or violates any law governing vilification, harassment, copyright and intellectual property, contempt or privacy’ would be removed.

In demanding measures to control uninvited contact some users were complicit in the development of a more closed technological system, alongside the imposition of a universal framework of rights and obligations. But they were given no other options. Rather than educating users in spam management and privacy protection or seeking user input on control measures, the ABC imposed solutions to protect itself and an assumed ‘naïve’ user. So while
there may be the opportunity for a circulatory power relationship in web space development, the ABC acted on a disciplinary reading of access and security discourses.

By the time the ABC regional production sites were ready to come online, websites were already perceived as threatened spaces that had to be monitored for evidence of user difficulties or deviance. This knowledge coincided with the desire to standardise the user navigation across sites in order to tabulate and compare their movements. No standardised methods existed for gathering statistics on online service use of online services until the turn of the century, so by 1999 web measurement had become a topic of industrial concern (Burton, 1999; Lowe, 1999b). The ABC, by then looking to capitalise on its online investment through e-commerce and content licensing, was increasingly interested in usage indicators as a tool for commodifying audiences (ABC, 1999b).

So in the planning for The Backyard, a gateway to local ABC content, the operation of three discourses – access, security and enterprise – contributed to the decision to have a design template imposed on all local websites, even those metropolitan sites that had been developed ad hoc as ABC Online grew. This template was intended to make web publishing a simple, non-technical and standardised task. At the same time, with its limited windows for distinctive local representation the template suppressed markers of difference in order to regulate the user experience and the ABC’s surveillance of that experience. Backyard sites were an administrative sub-set of national space, and only then an expression of regional culture.

The Backyard

The Backyard gateway <http://www.abc.net.au/local/> (Figure 9) was the entry point from ABC Online’s homepage to a network of websites representing forty-five ABC-defined regions; nine in capital cities and the rest scattered across the continent, each produced by local radio station staff.14 While the taxonomy of other ABC Online gateways related to distinct user groups (children, youth, Indigenous Australians, rural producers) or interest groups (science, arts, news, health, education), The Backyard tried to represent all of Australia

14 The ABC’s other twelve regional radio outposts did not immediately have web presences.
(conceived both as a unity and a diversity of places), by using local ABC radio services as navigation points.

In its design too the gateway appealed to the everyuser. The original homepage adopted the direct address of radio: this is your ABC, it suggested, and you could take part in shaping it by contributing to competitions and story-telling projects. It incorporated complementary navigation provisions – pull-down menus and hyperlinked maps. Site features were technically undemanding. Developers were not only mindful of download times for country users, but the need to make site use simple for the over-fifties who made up a large section of regional ABC radio audiences (Robinson interview, 2000).

The website template was comparable to the broadcast format used by ABC local radio stations (see Martin and Wilson, 2002), in the sense of indicating a series of informational elements users could expect to encounter. Stations could customise their sites by adding new pages (music playlists, photo galleries and so on) with images, audio and video files. Backyard staff could also develop locally-generated content ideas into workable online templates. However metropolitan stations were better resourced to achieve this outcome.

This author’s survey of The Backyard in October 2001 showed metropolitan sites had added many variations to the standard template, including a range of multimedia innovations. ABC Perth had an archive of classic interviews in audio-on-demand format, interactive competitions and several photo albums of station events; Adelaide, a Quicktime virtual tour of its studios and promotional video; Brisbane, a whistleblower page to solicit user stories of public corruption and mismanagement; Hobart, a page devoted to its ‘giving tree’ charity drive; Melbourne, a search engine and frequently asked questions (FAQ) page. These features changed regularly, keeping pace with the flux of city life.

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15 Despite the initial centralisation of gateway planning staff were rapidly located not only in Sydney, but Melbourne, Brisbane, Adelaide, Albany WA and Lismore, NSW, the home-base of the project’s national producer, Martin Corben, who also worked with a team of unofficial state coordinators in various radio stations.
Figure removed due to copyright restrictions
In contrast the majority of regional sites barely varied from the basic template, with little additional local content besides news and weather reports and limited diary entries. Music station Coast FM had begun audio streaming, although this technique could not be applied to other regional sites because of the bandwidth implications of transferring multiple streams in real time to and from the main servers in Sydney (Swan interview, 2000). Overall early regional sites offered less current or diverse information than that derived from listening to a radio morning show, and lacking radio’s intimate delivery. Some state-wide radio programs, heard on regional stations had no web presence (Martin and Wilson, 2002).

Websites ameliorated the ephemerality and time-boundedness of broadcasting. Radio provided only small windows of local programming but *The Backyard* invited repeat examinations and capture of texts like news, gardening tips and recipes, automated updating of weather information, and access to staff and station information. Importantly *The Backyard* gave urban users access to regional information in context, allowed movement between regional sites and access to other ABC Online services. In these senses early sites were more inclusive of user’s selective interactions than broadcasting Dialogic interaction, however, was not a feature (although users could add entries to a local events diary) so early *Backyard* sites represented fewer voices than radio with its regular talkback.16

At this time *The Backyard* was less responsive to the variety of place than other media partly because of resource constraints. ABC executives argued regional staff, already stretched by producing their radio content, were only expected to extend web presences according to their “aptitude and interest” (Hughes interview, 2000). Martin Corben, a national *Backyard* coordinator, had coopted users to produce innovative content for ABC Far North Coast NSW, the most accessed regional site in 2001. He ran an interactive crime-writing competition in tandem with the local writers festival, and appealed to listeners to email photographs of local events to post online.

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16 Speculation that *Backyard* sites would affect the high circulation figures of regional newspapers (Abernethy, 1999) also seemed unfounded. Regional dailies had maintained reasonable circulation levels without developing websites and *Backyard* sites did not aggregate the same diversity of local information as their newspaper competitors.
However he argued that most regional broadcasters could only be expected to produce a weekly text promo, email replies and events diary moderation. Improving multimedia standards required more staff, more training, more technical resources and greater automation of production processes, including conversion software for publishing audio on demand files (Corben interview, 2000).

There was an organisational awareness, through Corben, that extending the translation capacity of local sites required more productive resources, including the cooption of performative users. However it is also possible to identify, during this period, executive concerns emerging about the management of spatial translational practices like site navigation and hyperlinking. These issues point to an institutional preoccupation with demarcating online territory at the expense of furthering its communicative capacity through ‘reciprocity’, the mutual exchange of information. Online reciprocity enables the ABC to acknowledge that it does not simply reflect place-bound space, but is shaped by its interactions with users of that space and its presence in the space of flows.

Go ➔ Local

Although the web’s communicative potential appears to transcend geography and boundaries, seamlessly connecting the local to the global, websites are imperfect interfaces between the space of places and the space of flows. They produce their own third spatiality, partially tied to existing territorial understandings of space. Online, the lived space of telecommunications infrastructure is erased by the interface and replaced by site addresses or URLs (Universal Resource Locators), email addresses, menus and links which direct and enable reciprocal information exchange.

A growing concern with navigational aids was a necessary form of territorial demarcation. For a time in the early 2000s the label Go > Local marked the link from the ABC homepage to The Backyard, and on to individual urban or regional sites. This cryptic direction anticipated users knew the ABC’s term ‘local radio’, and so did not clearly indicate a connection to place. Neither did the names of many ABC websites, which had been named after their originating radio regions. ABC South Coast, for example, was based in Albany,

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17 Brett Hutchins’s (2005) work on regional newspapers suggests this connection.
Western Australia, whereas ABC Central West was on the other side of the country in Orange, NSW (Martin and Wilson, 2002). There had been no need for ABC Radio to demarcate national space consistently as it had operated as a federalist structure, and within its states people understood what directional nomenclature meant. The naming conventions had not anticipated listeners moving between the ABC’s local spaces and so an interactive map was introduced to aid user movement.

Yet editorial policy of the time also records a drive to protect ABC webspace that seems counterintuitive to expanding internetworked translation. Hyperlinks were represented as a necessary information service, but with potential dangers. Producers were warned against links that might be seen to endorse commercial spaces or take users to websites that were “contentious, likely to offend, potentially litigious or political in nature” (ABC 1998a: 45). Links to these sites, it was suggested, could require “suitable warnings”. In some parts of ABC Online, clicking on a link produced a tag that reminded you that you were leaving the ABC. Such policies and practices assumed a naïve user, unaware of his movements between spaces, rather than an autonomous, reflexive information seeker.

Linkage policy gave web producers some discretion as to the “inclusion, placement and commentary for all hyperlinks” (ABC, 1998a: 45–46), so regional websites were able to link to commercial spaces that provided detailed information about the character of the region, as long as they were approved first by The Backyard’s executive producer. This produced interesting inconsistencies. In 2000 ABC South Coast in Western Australia linked to a tourism site, which also promoted the services of a web developer and his/her software, and Queensland’s Coast FM linked to commercial music festivals. However Martin Corben said ABC regional websites online would not link to the website of a non-profit community radio station, “because it is competition” (Corben interview, 2000).

In many cases the bureaucratic drive to enclose ABC space restricted the types of regionality staff were able to construct online. Sites links from The Backyard were most often informed by governmental conceptions of place: they led to local council information and the activities of state and federally funded bodies such as educational institutions. Yet the least competent web user could arguably use search engines to assemble a more textured portrait of place. And such a search could plausibly overlook the ABC’s Backyard, depending on the search
terms chosen. So network visibility was another problem for the ABC’s ability to represent the nation’s cultural diversity.

A site’s integration into the space of flows may be measured by the number of links to (rather than from) a page, and its referencing by search engines (Sanderson and Fortin, 2001). Jill Walker (2002) argues that links to a website are a major determining factor in its visibility. Google, the world’s most popular search engine, ranks sites largely according to peer referencing. While Walker rightly queries the assumption behind link indexing, that “links provide an objective measure of value and are a sign of peer-endorsement” (2002, online), she gives the Google algorithm as only one example of how the political economy of networking values ‘reciprocal’ linking.

For ABC web producers to imagine webspace from inside out, with ABC Online as the centre of the network universe, was a self-limiting narcissism. Any prohibition on links to relevant third-party commercial sites could be seen as anti-competitive, as was suggested in the BBC Online technical assessment carried out as part of the Graf review (Spectrum Strategy Consultants, 2004: 2) and so at odds with corporate practice. Paradoxically as policy on ABC Online’s ‘exit points’ was being debated, ABC Multimedia executives were writing reciprocal linking clauses into news licensing deals with companies such as regional pay TV operator Austar and America Online/Bertelsmann (Burns, 2000c).18

A certain incoherence of spatial conception in the ABC’s online planning can be attributed to unfamiliarity with web space. It is also possible that a broadcast-like paternalism and centralist conception of web structure informed this relatively closed approach to spatial governance. But instead of visualising ABC Online as an inviolate zone with threatened borders, as in broadcast areas, it can be imagined as a nodal structure in the space of flows, a centre for reciprocal exchange and proximate, inclusive social relations.

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18 Burns suggested such deals exposed the ABC to the risk of losing its ethical wholeness, its independence and integrity. “ABC content is spilling everywhere,” she wrote, and users were slipping from “the security of Aunty” into other online spaces (2000: 117-118).
Node: creating proximity

In information and computing science theory a node is a connection point on a network, a site or device with the capacity to recognise, process and/or forward communications to other nodes. Nodes are visible only through the continuous passage of information flows. As Castells (1996) understood, in the absence of links to a node, it vanishes from the network. Network presence demands a continuum of interconnections between nodes and a multiplication of points of connection. This can be achieved through dense hypertextuality, with reciprocal linking to other web presences or by forms of dialogic interaction.

Brian Johns would argue in his last days as managing director that the ubiquity of ABC content was critical to the organisation’s survival in a multichannel environment (Martin, 2002) and he was accurate to a point. However the opportunity to connect is only a pre-condition to utility and inclusiveness. Proximity, the perception of being close or connected in time and space, is an equally important factor in maintaining social relations at a distance, and an important factor in constructing localism.

Traditionally associated with ‘co-presence’ or face-to-face communication, proximity has become a major concern in dislocated modernity and a focus of many techniques to recreate the proximate communicative experience (Boden and Molotch, 1994; Couldry and McCarthy, 2004). Broadcast media achieve a degree of co-presence though live hosting of shows, where for example, hosts can been seen (television), speak to audiences in the first person (radio) and use temporal and spatial deictic indicators such as ‘now’, ‘today’, ‘here’, ‘in our region’ (Martin and Wilson, 2002). This makes audiences perceive some locative connection to the speaker, particularly where the communication event is predictable and regular. On the internet co-presence is chiefly approximated through rapid personal responses to messaging and phatic interaction (as found in chatrooms or other synchronous forums) or use of web cameras.19

During the period surveyed by this thesis Backyard websites did not offer forums or other dialogic mechanisms, as it was argued staff did not have time to moderate the postings. It is possible that simulating face-to-face proximity could be less important at a local level, or

19 See Calvi (2005) on the centrality of phatic, or socially oriented, exchanges to online communities.
perhaps as effectively mediated through exchanges such as radio talkback or public meetings. Arguably though websites that increase their spatial reach through reciprocal communications and ritualised exchanges are more likely to build social networks and furnish the experience of being connected, than those that merely assert a claim to place. In its first phase The Backyard, a network named for its evocation of social familiarity, was demonstrably lacking in reciprocity and proximity over much of its territory.

In contrast elsewhere ABC producers were exploring a more nodal form of localism based on dialogic communications: communities of interest. From 2000 ABC Online hosted a range of web communities including ABC Sports talk and The Lab’s forums on science trivia, Self Service Science, natural history, Scribbly Gum, computer use, Tech Talk. These were designed to service a curious, interlocutory user and promote inter-user exchange on scientific matters (Allen interview, 2005). Such groups, eventually showcased with others in a separate gateway called Communities, were also regarded as audience research and development strategies, impacting on “programming decisions, demographics and expectations” (ABC, 1999b: 20). So the idea of communitarian reciprocity was adopted as a pedagogical strategy and as means of harnessing the performative user's productive, social energies.

The ABC’s online communities were inclusive to the extent that they provided a constantly accessible locus for negotiating beliefs, opinions, and attitudes as well as more instrumental information. While most users were transient, some became so socially bonded through email correspondence that their activities spilled over into the offline world, and on to other websites. For those individuals the ABC forums were closer to Lash's disorganisations or Hills’s “communities of the imagination” (2002: 147ff), socialities that generated strong creative and emotional, or ‘affective’, attachments. The next chapter will indicate that establishing a cooperative framework for that reciprocity was pivotal to achieving productive exchange. Creating a communal webspaces was not in itself a recipe for addressing problems of representational failure, as is indicated by the case of Australians Online.
Australians Online

*Australians Online* was modelled on the BBC’s Doomsday community history project and its early 1990s online community publishing initiative. It was designed to assist Australians to maintain commercial-free community websites where they could publish and read histories, creative writing and information such as sports results. Community management and moderation of these sites would, it was projected, “support an evolving oral [sic] and visual representation of Australian identity” (Communications Law Centre, 1999: 64). *Australians Online* was envisaged as a network of self-organising sites within the ABC domain. There was even some discussion about negotiating with regionally based ISPs to host the project and thus ‘complete’ its separation from the ABC (Lane interview, 2005) but the project was eventually abandoned after its trial period.

The ABC developed the *Australians Online* concept as part of its preparations for the 2001 centenary of Federation, applying for targeted federal government funding. In scope the project was reminiscent of the 1920s School of the Arts movement, where sites for cultural instruction and expression were built in thousands of country towns. However *Australians Online* had the inverse intent: to foster the expression of regional cultural identities, rather than a desirable national standard. It was predicted ABC regional stations would benefit from the additional source of story ideas, which might then be turned into radio or television – although local radio managers had not been consulted in the initial project development and had to be talked around to this idea by the success of a pilot project.

The project was trialled in the Gippsland region in collaboration with the Victorian government’s Cinemedia film development agency, volunteer groups and Local government cultural development officers. As the Gippsland pilot proceeded, it became clear that the model could work well (Lane interview 2005). So the design and publishing of a national site went ahead, although there were strong organisational concerns about editorial control of the sites and Federation funding had not come through. Webpages were set up for urban and regional contributors in every state, along with a detailed self-moderation system (Burns 2003: 344ff). However before *Australians Online* could be widely promoted or its production model established elsewhere, the project was cancelled. By 2002 the pilot was no longer
linked to even the ABC Gippsland homepage, although it was still part of the ABC Online domain.

The drive to protect and control ABC space had manifested internally in defensive rhetorics of professionalism, standards, and cost. Some senior Radio staff had not supported the degree of community control envisaged. They rejected the idea of handing editorial control to enthusiastic amateurs, citing the difficulty of maintaining editorial standards or content focus. The ITS department had flagged possible cost escalations in bandwidth use and content hosting, worried that heavy use would make the scheme financially unsustainable. Even after producers dispensed with the community oversight model, because internal moderation was cheaper than “building/maintaining/overseeing local oversight groups” (Lane interview 2005), neither ABC Multimedia nor ABC Radio would bear the project costs.

_Australian Online_ demonstrates the difficulties of a political trajectory away from developing national space, to that of remaking the social relationships and micro-cultures of communities. The project was an attempt to be inclusive. The ABC was to hand cultural representation back to its public, imagined as a plurality of self-activating individuals and communities. _Australians Online_ was conceived as a universal space of expression that would eventually bifurcate into user-determined levels of diversity. This conception drew to some extent on an ideal of communities as a “natural” political form, self-mobilising and sustaining (Rose, 1999: 189).

More pragmatically though, these imagined communities had to be constructed through governmental techniques, seen during the Gippsland pilot in the attempts to determine modes of governance, standards for content and the economics of social contact. It is likely that _Australians Online_ was not pursued because there was less difficulty and more political capital to be gained in bolstering the ABC’s existing regional production networks, than supporting an overlapping, semi-autonomous network of abstract community spaces.
In the national interest

Regional representation became a priority of the ABC’s new managing director, Jonathon Shier, who succeeded Brian Johns in March 2000. Jonathon Shier, a former Young Liberal party vice-president and commercial television executive, was a controversial appointment due to his political history. He was publicly criticised for his bombastic, bullying leadership, senior executive purge and attempts to commercialise ABC Online. It was not reported that his interest in new media development had broadly favourable outcomes for the service. He formally declared it a division, on par with Radio and Television, and increased its budget by two-thirds. ABC Multimedia was re-named ABC New Media in recognition of its diversifying digital interests. Its management structures were flattened and production staffing fully costed for the first time (Vaile interview, 2003).

It is also likely that Shier’s political connections, alongside the increasingly conservative composition and corporate reform agenda of the ABC Board, helped him secure new state funding for regional content production and online development where Johns’s earlier proposal had failed. In early 2001 Shier applied to the Department of Communications for $37.25 million a year for four years to realise a ‘National Interest Initiatives’ (NII) strategy. This centred on increasing production of regional and rural programming alongside more business coverage, and more educational and children’s content for the multi-channel television service, ABC Kids, which was planned for launch in August.

The NII campaign was greeted in the media with some scepticism. Media commentators noted that proposal came only a year after the start of a triennial funding arrangement that had provided no funding for multimedia initiatives (Davies, 2000), and it was aimed at providing content, which was traditionally a lesser funding priority than capital or running costs (Bolton, 2001). However the historic significance of regional Australia to Coalition politics and the timing of the proposal, together with Shier’s particular expression of regional commitment helped the NII succeed in Canberra.

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20 During his brief term Shier floated a succession of pay-per-view, subscription, retail and advertising schemes including ads on the Playground gateway, targeted at children over six. In response the Democrats drafted a Bill to make ABC Online a declared service under the ABC Act, extending its prohibition on broadcast advertising to the web.
The NII proposal coincided with a federal election campaign, where there had been predictions of a swing to Labor after a strong showing of support for the ALP at state elections. It followed a nation-wide campaign against ABC funding cuts by the Commonwealth Public Sector Union and Friends of the ABC groups. Finally it came at a time when commercial television networks were closing their regional news operations, leading to a public outcry and a regulatory inquiry.\textsuperscript{21} This re-emphasised the ABC’s distinctive commitment to local news – including political coverage.

Finally Shier’s proposal was couched in terms of ‘decentralisation’ a relatively unassailable rhetorical position on governmentality, since the devolution of government to the regions had been a political catchcry of both the Australian Country Party since World War I (Brockett, 1997), and later reformist Labor governments. In his first address to the National Press Club, Shier defined decentralisation as moving “activities and services from Sydney to better reflect the needs and the multiple identities, within the national fabric of Australia” (Shier, 2001). Here his speech, written by senior policy executive Geoff Heriot, also indicates a shrewd shift away from the Keating-era emphasis on managing ethnic and racial diversity, to focus instead on representations of place-based and socio-economic difference:

Australia has many faces. Not only rich cultural diversity, but increasingly, socio-economic divisions between the city and the bush, between suburbs, and between dominant east coast metropolitan centres and the rest of the country. Who else, if not the ABC, can give voice and soul to the Australian federation during a period of significant change and adjustment? Connecting Australians with one another and the world beyond? (Shier, 2001: online).

The NII an attempt to re-unify a fragmenting and disenfranchised national polity: “helping Australians to manage and engage creatively with rapid change and nation building in the era of digital technology and globalism” (ABC Corporate, 2000).

In May 2001 Shier was granted $17.8 million annually, effectively tied by the Coalition to spending on regional operations and content (Martin, 2002). In the NII’s wake regional

\textsuperscript{21} In 2001 the closures of regional newsrooms by Prime Television and Southern Cross Broadcasting, affiliates respectively of the Seven and Ten Networks, prompted a federal regulatory inquiry into the adequacy of regional news services (Australian Broadcasting Authority, 2002).
operations moved from being one of the ABC’s more straitened, if symbolically critical, functions to one of its most securely funded. *The Backyard*, although still a lesser priority than radio, expanded with city and rural websites exhibiting a greater degree of resource parity. As well as paying for new radio staff, the NII grant funded twenty-three cross-media producers based in the regions, working half-time between radio and online (Allen, 2005). The NII also financed the Regional Production Fund, a commissioning fund for outsourcing broadcast and some online production to regional producers.

Increased resources allowed the ABC to extend its web space to cover almost all regional outposts and reduced, if not removed, anxieties about engaging in dialogical interactivity. Regional websites were still uncomplicated, folksy spaces but from 2002 as online producers settled in to their positions they acquired greater levels of multimedia complexity with photographic features, broadband video, audio-on-demand and the occasional Flash animation. Guestbooks were added, as public demonstrations of the ABC’s connection with its users. Increased resources helped generate more diverse depictions of life outside the cities, and enabled these to be more widely available online (although hypertextually these sites remained largely separate from the online life of their respective regions).

Geoff Heriot indicated the new content generated greater use of *The Backyard* site. In the three years after the 2001-02 financial year page accesses for *The Backyard* site constellation increased by 270 per cent compared to an average of 95 per cent for the rest of ABC Online (Heriot interview, 2006). Some of this interest could be attributed to increased regional domestic uptake of the internet, particularly broadband services, and correspondingly greater use of the site. However it is also possible that users were attracted by *The Backyard*’s improved range of information and opportunity for dialogic interaction, a proposition that needs further investigation through content access analysis. So while the NII grant could be seen as a political strategy to gather support for an electioneering Coalition government, it also had the effect of being a significant positive influence on the ABC’s spatial extension, representational capacity and relevance – an unexpected trajectory under a neoliberal administration.

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22 Information not made available to this researcher under commercial-in-confidence provisions.
Conclusion

The ABC’s production of webspace from 1999 gradually extended its capacity to connect and engage regional, dispersed populations in the production of both national and discrete cultural identities. ABC Online addressed PSB’s fundamental political problem: the representation of unity under the conditions of infinite diversity. Online those objectives were not necessarily mutually exclusive. The social construction of a universal user – English-speaking, regional, naïve, performative and/or unruly – played some part in determining the representation of space, the mediation of user agencies and the types of sociality made possible. However online the linear fixity of broadcast genre, form and programming gave way to increased representational plurality.

As it developed ABC Online offered more sites like the Con Con with original web content and more semiotically open, if monolingual, translation spaces than the ABC’s discrete broadcast networks. Users moved at their own pace, in their own time, between texts, regions, communities, services and beyond, able to return to any of these sites. The Backyard’s information flows still radiated to and from a central server, but the gateway indicated that users could collect and reassemble knowledge about Australia from a suite of narrative options. They could form their own picture of the national within and alongside the global frame of the web.

Webspaces were more polysemic texts than broadcasts where they offered interlocutory opportunities. For those with internet access, dialogic webspace may have appeared less enclosed than radio space as it involved fewer controls on who could be heard (or read). Where it was published dialogic interaction could present multiple readings of place and increased the scope for performativity. Guestbooks and forums were arguably polyvocal, even where they attracted users with similar interests. Where textual interventions were asynchronous and public they complemented radio’s synchronous, professionalised conceptions of regionality, grounded in demographic expectations and an existing hierarchy of sources.

During the period under study it is possible that ABC’s mimetic and enclosing tendencies, its organisational assertion, limited the number of non-broadcast or non-ABC users to local sites,
and minimised information contraflows from the regions through reciprocal linking. It is also unclear to what extent user emails were answered by producers or other users and so to what extent users experienced institutional reciprocity or proximity. However in this account user studies, including the impacts of user agency on the ABC’s role, appear as a rich site for further investigation.

The example of the Con Con guestbook indicates the difficulties of idealising online participation rather than seeing it as a complex, evolving and collaborative communicative project. It also demonstrates how ABC Online’s tactics of online government required ongoing adjustment to respond to the multiplicity of possible interactions between users of varying technical capacities, cultural, socio-economic and political backgrounds, to changing external events and the mutable architecture of the web itself. At issue were the strategies of control necessary to promote performativity, while maintaining access and accountability.

This chapter suggests that interactive systems can be just as important to those at the centres of networks as those on the peripheries, for they provide the return paths by which the failures and successes of translation can be monitored. A neo-liberal age ABC may be unable to influence the provision of new communications infrastructure or access opportunities, but it can facilitate a unified zone of participation, with spaces inviting reciprocal flows and mutually beneficial tactics for developing proximity and interconnectedness.

The next chapter considers the implications of interactive communications for the ABC’s role in forming citizens. This pedagogical mission, as Chapter 1 suggested, has also been made difficult by social pluralisation and the need to service increasing representational diversity. However a move towards reciprocal communications online introduces possibilities for mutually negotiated and critical engagements with user/citizens as well as less disciplinary forms of instruction.
Chapter 6

Forum: The dialogic proposition

Whereas discipline is direct and authoritative, interactivity is intended to turn the user (visitor, school child, citizen or consumer) into a more creative, participative or active subject without the imposition of a direct form of control or the judgement of an expert authority. Discipline implies normalisation; the injunction is ‘You must!’ Interactivity, by contrast, is associated with the expectation of activity; the injunction is, ‘You may!’ (Barry, 2001: 149)

The web invites users to learn by doing and relating, rather than simply watching or listening. As such an interactive publishing system like ABC Online would appear a more effective way of forming self-directed, informational citizens, as Andrew Barry suggests above, than broadcasting. Further, as the previous chapter suggested, a system open to dialogic interaction may increase the degree to which it can incorporate user diversity. With this in mind the following chapter examines whether ABC Online demonstrates a new public service pedagogy, one that might be appropriate to a pluralising society by mediating more participative and reciprocal power relations than broadcasting.

Computers and interactive tools are commonly used in contemporary constructivist instruction to create environments that help students incorporate their own experiments, experiences and beliefs into knowledge building (Osberg, 1997; McMahon, 1997; Papert, 1992, 1998; Begona, 2002). In distance education, for example, online discussion boards may be used to “shift the role of teacher from knowledge transmitter to that of a facilitator who provides ample opportunities for interaction and meaning-making to all learners” (Vrasidas, 2000: 340). ABC Online needs examination in this light not in the least because of the developmental influence of web producers such as Ian Allen, founder of The Lab, who saw that site as an environment where users could debate ideas and query orthodoxies (Chapter 3).
Constructivist pedagogy could be seen as antagonistic to PSB because it challenges the existence of singular truths and opposes educational traditions based on absolutes such as objectivity and quality, mainstays of the Reithian cultural ethic. However I argue that the ABC’s pedagogical challenge in a more pluralistic media environment is to support the development of a responsive, reflexive user through online invitations to self-expression and social interaction. Where selective interaction enhances user autonomy and self-realisation through choice, dialogic interaction also involves the mediation and vocalisation of discursive knowledge and negotiation of networked sociality – important facets of self-improvement in an informational world.

Networked interactive mechanisms such as mailing lists, ‘your say’ pages and web forums were spaces for user reaction to ABC knowledge and exchange of ideas. User commentaries expanded broadcast meanings, problematised PSB’s expert-subject relationship, suggested systemic improvements and consequently broadened information choice. They also disrupted and threatened hierarchical control. This chapter asserts that the ABC’s exploration of dialogic interactivity fundamentally recasts its role as an educative technology that is shaped by its performative users.

**Becoming dialogic**

In identifying the significance of dialogue to public service media, I want to avoid fetishising it as a liberatory or universal process. Instead I will document the ABC’s tentative moves from a ‘magistral’ or authoritarian pedagogical mode, to Socratic and social constructivist seminar forms of dialogue: from a position where the program-maker (first voice) asserts superiority over the audience (second voice) through recourse to regimes of truth (the third voice), to those where audiences become more interrogatory. Here the telos of that third voice can be interrogated and meaning reached, or dissonance exposed, through mutual explanation and enquiry (see Cheyne & Tarulli, 1999). Dialogue becomes a means of governing entrepreneurial, performative subjects who must continually remake themselves in their pursuit and production of knowledge.

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1 Burbules (2000) documents this tendency across six traditions, from deliberative liberalism to Freirean critical pedagogy.
2 Cheyne & Tarulli’s (1999) description of Socratic method is less rigid and dyadic than that critiqued in legal pedagogies of the 1970s-80s, which resembles a magistral dialogue (cf Morgan, 1989).
Education, the process of transmitting knowledge, is a critical aspect of the ABC’s remit, linked to both its socio-political and cultural programmes. As the 1997 Mansfield report noted, educational programming is the only form of content mandated in the ABC’s Charter (1997a: 19). In policy terms educational content is defined broadly. It goes “beyond curriculum-linked material [to include] the breadth of performance, reportage, debate and analysis presented across the Corporation’s services” (ABC, 2002: 6). It is directed at teaching audiences how to be active and discerning citizens.

On an operational level however the ABC’s educational role was discussed more in terms of an instructional duty to young people, around the production of children’s programming. In the ABC’s administrative reporting science and arts programming were not classified as educational. Unless program-makers produced support materials for structured learning or collaborated with teachers it was unclear how they were expected to be educational and rare for teaching qualifications or experience to be a requirement for broadcast program-makers.

Instead a generalised instructive relationship was assumed between the exemplary broadcaster and audience members. The ABC claimed to provide accurate, objective information that was distanced from commercial influence and for which it was publicly accountable. Audience members were responsible for using this output to cultivate an informed self. Learning outcomes were then read into audience responses such as ratings, annual surveys that declared the ABC a better news provider than commercial channels, or retail sales of programs, music or books. It is undisputable that some audiences were intensely attached to the dependable, ‘unified’ ethical substance of public service broadcasting (Burns, 2003). It is also likely that for these individuals the ABC offered a trustworthy and an authoritative voice in the increasingly chaotic space of flows (ABC, 1999b).

This research found that ABC Online’s dialogic mechanisms gave some users the chance to affirm that role, by commenting on or discussing the value of ABC programs. It also appealed to entrepreneurial and unruly users, those who wished to extend or disturb the existing exemplary formulation. In online forums, for example, users could engage broadcasters and expert guests to probe journalistic assumptions, PSB agendas and each other’s values (Martin, 2002). Such encounters introduced relativisms and instabilities to the act of translation. They also introduced perceptible levels of mutual recognition and social interchange. Dialogic interaction sometimes fractured the direction of broadcast discourse that preceded it, but
through it ABC Online acted as an interface between organisational truth and the disorganisational truths of individuals, with their varying associations of value and affect.

The dialogic interaction monitored on ABC Online included user contributions of text and images, with occasional references made to audio and video clips. Different forms of written interaction (guestbook, discussion board, community) suggest different strategies for constructing reciprocity. The technocultural concept of the ‘forum’, a widely used term for these online spaces of declaration, debate and learning, becomes a lens for investigating the sociality of dialogic interaction. An examination of several ABC Online sites will indicate that they can be associated with the formation of reflexive self, greater plurality of knowledge production, and even increased institutional accountability – but simultaneously, how dialogic entropy can propel institutional moves to reduce systemic openness and even a retreat from interaction. Later in this chapter I will document further ABC program-maker anxieties about sustaining reciprocity in light of intensified informal communications.

Here I begin a more detailed examination of ABC Online as an instructive environment by comparing the pedagogy of broadcasting and websites, and examining how web technologies share characteristics with constructivist learning environments. I then describe the intersections between social constructivism and dialogic interactivity in order to analyse the interlocutory relations online between users, media workers and authorised experts. I introduce the forum as a conceptual model for governing online sociality and learning relationships, presenting two approaches to configuring these dialogic formations. In doing so I consider the barriers to participation and reciprocity, and their implications for a more open, responsive system of public service translation.

**Pedagogical media**

Broadcasting, except in its live, participatory forms, is often a pre-determined pursuit. It is a fixed set of informational relations in which the possibilities for creative, interrogative or disruptive interventions are limited and social contextualisation is pre-set. The representational spaces of radio and television offer a particular type of truth, similar to that which Lebfevre understands can suppress or eliminate materiality and ‘the gestural’, or texture and tactility (1991: 40–46). Broadcasts capture a moment, a reaction, a certain framing
isolated from its broader social interpretation, just as its reception and contextualisation are largely privatised. Like Mikhail Bakhtin’s utterance, the address of which anticipates a historical response, the genre, style, structure and scheduling of broadcasting anticipates its reception, especially in the targeting of specific audiences.3

Further, as Chapter 1 indicated, even in representational spaces such as talkback and live television debates, broadcasters engineer a sociality (their listening ‘public’), set the feedback agenda and limit the play of meaning within those boundaries. The individual’s performance of knowledge and self can be constrained by exemplary judgments about the relevance or entertainment value of his comments. Broadcasters will engage callers if they are on topic or good talent, but not if they wander, stutter, hesitate or otherwise fail to perform. Broadcasters may seek ‘other’ opinions but there is little sense of mediating between positions. Audience members rarely engage each other except through the host. Broadcasting imposes a traditional pedagogy in its focus on the moral intervention of host/narrator/directors, and their limited capacity to facilitate understanding between audience members.

Pedagogy, the art or science of teaching, derives from the ancient Greek paidagigos: pais or the generic paidos, for child, and agogos, or leader. Its etymological associations with instructing children, and later with an authoritarian style of teaching, are given cultural context in Ian Hunter’s (1988) governmental analysis of the development of literary pedagogy. There are clear parallels between Hunter’s exemplary teachers and ABC broadcasters, in that both are monitors of social and moral life (Jacka, 1997a, Burns 2003). ABC broadcasters could aptly be described as “part friend, part parent, part director of conscience” (Hunter, 1998: 59), and also as filters, purifiers and disseminators of knowledge (p. 60). What broadcasters have often lacked is the teacher’s ability to intervene in individual development and influence reception.

3 Bakhtin argues that “The word in living conversation is directly, blatantly, oriented toward a future answer-word: it provokes an answer, anticipates it and structures itself in the answer’s direction” (1981: 280).
ABC Online’s dialogic spaces provided that avenue of intervention. Producers used forums to
gauge audience responses to programming, to answer questions, correct misconceptions, and
otherwise supplement user knowledge about the broadcast object and its creation. In this ABC
Online did not vary greatly from the ideal panoptical classroom of the 19th century where
“Every word spoken [by the teacher] is more easily heard by all; individual, but more
particularly simultaneous answers are more readily obtained” (Hunter, 1988: 59). Web forums
were also disciplinary spaces, where user movements and exchanges were monitored and
breaches of use punished. However ABC producers who removed offending or off-topic posts
from sites did so primarily on ethical, rather than performance grounds. This left room for
participation by a wider range of users than in talkback or studio debates.

It also is possible to read the ABC’s interest in dialogic interaction as following a more
general Western trend towards decentralisation, diffusion and re-organisation of knowledge
structures (Gibbons et al, 1994; Heelas, 1996; Nowotny, Scott, and Gibbons, 2001; Nowotny,
2003). This shift has most recently been discussed in terms of the lay “contextualisation” of
scientific knowledge, and the increasing incidence of society “speaking back” to the
‘legitimate’ producers of scientific knowledge to introduce local, political, racialised and
gendered problematisations of accepted research agendas and methods (Nowotny, Scott, and
Gibbons, 2001: 50ff). For Nowotny, Scott, and Gibbons this process of contextualisation is
characteristic of the conditions of informational modernity. Users have assumed a more
central role in the production of knowledge through their inclusion in diverse research
methods. They have subsequently questioned the nature of reliable knowledge, altered the
ways in which knowledge is conceptualised, and contributed to the complexity and
uncertainty of new research processes.

These accounts intersect with poststructuralist critiques of a legitimisation crisis. For Lyotard
(1984) consumer sovereignty and technological democratisation, among other social shifts,
have contributed to the spread of individual knowledges that unsettle the accepted
legitimising procedures of institutionalised authority. In his estimation these little narratives
or petit recits are the “quintessential form of imaginative invention” and disciplinary change
(1984: 60), transformations played out through ‘paralogism’ or language games.

This study found some evidence of senior staff support for the democratisation of knowledge
production, for example in Ian Allen’s vision for The Lab. Bob Johnston, editor of ABC New
Online, promoted email exchange and online forums as a means of accessing new story ideas, “value-added commentary” and a diversity of views not canvassed by broadcast media (Johnston interview, 1999). He also proposed that users might be able to draw attention to news items that needed clarification, or those containing errors of fact, increasing the accountability of the ABC news service as a whole. By 2001, even ABC Chairman Donald McDonald had declared that ABC Online was a tool for mutual learning:

> The audience’s diversity and the depth of knowledge must be regarded as a new asset for program makers. Learning from our audiences improves our work.  
> (McDonald, 2001)

So in key areas of the organisation ABC Online was seen as a new pedagogical regime: a technology for decentring knowledge production and inverting the exemplary learning assumption. This shift in attitude recognised that users could innovate by refracting information through their unique cultural prisms. Users were also attributed some degree of expertise. Their claim to this form of power/knowledge, otherwise associated with professions like psychology (Rose, 1989) and journalism which defined and justified certain strategies of control, was played out online through interactions that highlighted users’ interpretative and critical faculties.

A new pedagogy?

ABC Online mediated the presence of an active, resourceful learning subject of the type imagined in the constructivist pedagogies pioneered by educationalists Jean Piaget, Jerome Bruner and Lev Vygotsky. Constructivism is an educational discourse consonant with the creation of responsive, self-regulatory and self-aware learners (Doolittle and Camp, 1999). As a starting point constructivists assume, after Piaget and Bruner, the active self-formation of cognitive development, the benefits of staged learning and the importance of individual experimentation and sensory exploration.

Using Piaget’s cognitive developmental theory, ABC Online could usefully be analysed as a personal constructivist environment where users probe information at their own pace, to their own level of interest. It is possible, for example, that new ideas may be assimilated more
easily through capture and revisiting of materials and that multimediality and game play would engage audio-visual and kinesthetic modes of information processing, increasing the tactility of the media experience. However such an analysis, which would recognise the user’s role in her own knowledge construction, is a weak and less persuasive theoretical path than social constructivism because it does not consider the subjective and social nature of the learning experience.

I am more interested by the assumption, after Vygotsky (1978), that knowledge is socially and culturally mediated, or, in more radical or critical formations, that the learner must confront the power relations that govern knowledge production (von Glasersfeld, 1995). In social constructivist teaching environments users ideally negotiate their individual learning experience in groups, testing their knowledge constructs in deliberation with other individuals. They are encouraged to be vocal, interactive subjects. David Wood, discussing Vygotsky’s theories of cognitive development, supports the idea that:

…social interaction and such experiences as talking to, informing, explaining, being talked to, being informed and having things explained structure not only the child’s immediate activities but also help to form the processes of reasoning and learning themselves. The child inherits not only ‘local knowledge’ about given tasks but gradually internalises the instructional process itself. Thus he learns how to learn reason and regulate his own physical and mental activities. (Wood, 1998: 165)

If we applied this proposition to the ABC Online context, it may also be possible to interpret dialogic interaction as an aspect of experiential learning (Baker, Jensen and Kolb, 2002), where users reflect on their broadcast or life experiences in order to formulate both abstract understandings and strategies for action.

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4 Packer and Goicoechea (2000) reveal affinities between social constructivist and poststructuralist concerns about social context, such as Bourdieu’s concepts of ‘social fields’ and ‘habitus’. 
Such outcomes cannot be generalised but must take into account the social composition and operation of the forum. Vygotsky argued that in a shared social context or “zone of proximal development” (1978: 86) students who drew from advanced learners could master concepts and ideas that they could not otherwise understand on their own. Consequently social constructivist models are transparently hierarchical, predicated on learners being supported by more knowledgeable peers in a social setting. In this they also rely on the development of intersubjectivity, or some comprehension and sharing of others’ linguistic meaning and states of consciousness, acquired in part through dialogic exchange and negotiation (Kim, 2001).

It cannot be that online dialogue generally, let alone the ABC varieties, always meets this condition. Intersubjectivity, the concept underpinning Habermas’s (1991) theory of rational communications, is more difficult to establish online than in face-to-face or broadcast communications as language is stripped of both verbal and non-verbal cues and its interpretation is more reliant on situational (contextual, localised, personal) meanings. Intersubjective relations may also be conditional due to the relative anonymity of online communications. Yet the visual anonymity of the internet, which leads to uncivil deception and flaming (or verbal attacks) can also encourage greater self-disclosure (Joinson, 2003) and thus acts of parrhesia, or uninhibited speech, which Foucault saw as critical to the discursive liberation of self from dominating forces (Simons, 1995; Tschaepe, 2000).

More significantly not all ABC Online sites offered dialogic interaction. In 2002 the only form available on many sites was an email auto-reply form, which proffered the opening for dialogue but did not guarantee a personal response. Where forums were accessible they were often short-term gatherings with user posts demonstrating uneven degrees of interpersonal recognition, understanding and engagement. Dialogic mechanisms, their uses and purposes varied significantly across ABC Online, a consequence of its ad hoc, decentralised growth.
Forum

ABC Online’s earliest online socialities were what are now known as guestbooks, asynchronous, or temporally disjunctive, messaging systems that operated like bulletin boards. Although they were called forums, guestbooks were Common Gateway Interface (CGI) structures with a list-like interface, designed for data collection rather than conversation.\(^5\) In turn they failed to generate much inter-user exchange. In 1997 producers began to use an in-house developed HTML messaging application that allowed threaded, quasi-synchronous conversation and staff moderation of posts.\(^6\) These ‘web chats’ were also dubbed forums to distinguish them from the instant, unmoderated messaging of Internet Relay Chat (IRC) (Burns, 2003). By the late 1990s forum became the common usage term for internet discussions including bulletin boards, Usenet newsgroups, listserv mailing lists and chat rooms, all mediated by different software applications and offering differing degrees of proximity via synchronicity and co-presence.

Between 1995 and 2002 ABC Online sites offered asynchronous and quasi-synchronous forums, with web interfaces to simplify user access to both messaging and archives.\(^7\) Asynchronous forms such as listservs and ‘your say’ pages enabled users to determine the moment of their participation. There were two types of real-time forums – the topic-based online communities mentioned previously and time limited ‘hosted’ gatherings that took their cue from television or radio shows. With the latter program-makers and experts would log online after a broadcast to answer user questions and mediate debate on program content. Here the resultant exchanges could be seen as a form of Socratic exchange, a form of guided learning similar to Vygotsky’s ZPD (Resnick, 1989), where users responded to external and internally posed questions.

Although dialogic interaction is never directly associated with the ABC’s educational remit in policy documents, it is possible to view forum technologies as strategies for managing social learning experiences. As indicated earlier, exemplary motivations for developing forums

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\(^5\) See for example the Kyoto Climate change conference forum from late 1997 at `<http://www.abc.net.au/science/earth/climate/forum/kyoto.htm>`

\(^6\) “Quasi-synchronous” in that the synchronicity of forum messaging depended on the speed of page refreshing and the level of moderation imposed on posts (McKay and Rintel, 2000: online).

\(^7\) User posts were generally archived online but towards the end of the decade under investigation, information storage and software migration costs had led producers to abandon automatic archiving in some cases.
Chapter 6 – Forum: The dialogic proposition

included the desire to seek public feedback on the broadcast experience, to acknowledge a
diversity of opinion, to cultivate an interrogatory user, promote debate between users and
learn from users. These aims parallel constructivist objectives, particularly in recognising the
value of learner-to-learner interaction. Indeed during the study the ABC’s practice of
encouraging inter-user dialogue during synchronous forums ran contrary to the practice of
most other broadcast organisations including the BBC, which sought to privilege user to
broadcaster/expert exchanges (McKay and Rintel: 2000).

The Lab demonstrated the most developed strategy for promoting dialogue with, and between,
users, perhaps because of its producers’ enthusiasms for the reflexive shift in scientific
research. Early Lab pages incorporated email response scripts for some years (while
interaction with users was a novelty) and producers listed their personal email addresses on
the site’s ‘About Us’ page.8 While site development remained in the ABC’s control, Lab users
were urged to be productive, reflective, creative, and to communicate independently of their
ABC host. Lab feature articles included biographical details and often email addresses of
authors, inviting direct reader responses. Lab users were able to post to guestbooks, a science
events diary and for some years could suggest URLs to add to global links page.

They could also engage in public discussion and shared projects. As well as hosting both
broadcast or event-related forums and the online communities mentioned in the previous
chapter, The Lab spawned an educational companion site, Labnotes, which was created in
collaboration with users. Building on ABC science programming, site materials were
developed with the Australian Science Teachers Association (ASTA), state education
departments and individual teachers. Teachers were invited to post ideas for science- based
teaching projects or to comment on curriculum resources, and the site hosted a listserv
discussion group. In the latter problems of emerging professional relevance could be
individually raised and/or contextualised, another key aspect of social learning (Brooks, 1999:
ix).

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8 CGI script is code embedded in HTML pages used to process user-entered data. It transfers data between the
user, a web server and other programming applications such as databases.
Users could develop varying degrees of intersubjectivity with program-makers and other users depending on the communicative setting. Quasi-synchronous gatherings dismantled the predictability and formality of the broadcast host-user exchange. TV program-makers described synchronous forums as a more conversational, informal and spontaneous means of communicating with audiences than broadcast debates (Corcoran interview, 1999; Lester interview, 2002). Similarly a first-time user of one current affairs forum said the forum discussion made “the whole program come to life” (Foreign Correspondent, user post id 956, 7th November 2001).

Such intimacy of exchange was less obvious in unhosted guestbooks, widely used where real-time moderation was cost-prohibitive. Guestbooks anticipated user demands for self-expression, but evidenced only occasional public responses from ABC producers. They were far less likely to generate dialogic exchanges than real-time web forums, as they did not furnish the quick reciprocity, the focus of a co-present addressee or the facility of threaded communications. Users could develop that familiarity however, where they could anticipate host reciprocity. In 1998 a Lab guestbook was used to direct hundreds of user posts to Ingrid McGaughey, the wintering doctor at Mawson Station in Antarctica, in response to her multimedia diary, Ingrid on Ice <http://www.abc.net.au/science/antarctica/ingrid/guestbk/guestbk.htm>. Some of its recurrent users displayed an unusual degree of empathy and personal revelation, which deepened as they read McGaughey’s diary entries over time.

So forums, and to some extent guestbooks, may facilitate a level of intersubjectivity through the act of textual participation. Reciprocity is a significant aspect of this dialogic moment in

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9 This sense of intimacy derived from the immediacy of email but may also have been an effect of ‘putation’, where written exchanges are inflected by the performative rhythms of speech (Kirschenblatt-Gimblett, 1996: 55).
that mutual recognition and respect act to validate group participation (Bianchin, 2003). Lash argues that this dynamic is tied to an age-old search for ethical completeness through collective recognition of an authentic individual self and acknowledgement of that self’s right to dignity or esteem. “Recognition, grounded in reciprocity and unity of purpose is...not only the source of self, but also the source of modernity’s social bond” (Lash and Featherstone, 2002: 13–14). Similarly in citizenship studies inclusive political participation is characterised not merely by rights to speak but the obligation for others to listen and respond (Stevenson, 1997; Couldry, 2001). For this reason both participation and reciprocity could be seen as necessary components of dialogue and of any pedagogy that aspires to represent the individual within the collective or explore aspects of difference.

Difference and dissent

Dialogic mechanisms relied on, and gave importance to, an online 'explosion of narrativity' (Poster, 1995: 36). Mark Poster, paraphrasing Lyotard, indicates the way in which user stories – their petit recit – encompass “the role of invention, the indication of the unknown and the unexpected” resisting “totalizing gestures” (1995: 36). In some ABC forums users resisted normative mediations by problematising representational practices and dominant discursive assumptions. This was most apparent in the ABC’s current affairs forums.

In 1999 Foreign Correspondent, ABC TV’s international current affairs program, initiated a weekly, hour-long synchronous forum in order to ‘reach out’ to and expand its audience, and to publicise the work of the ABC’s foreign bureaux. Two or three reporters would log in from around the world to field questions about their stories. According to acting executive producer and journalist Mark Corcoran each session would attract between 200 and 700 users (Corcoran interview, 1999) although a count of user names across a random sample of ten forums in the period 1999–2000 suggests on average only 40–70 individuals posted messages.

Corcoran divided forum users into three broad groups: those with a general interest in programs who were keen on talking to the reporters, people from the country discussed, and those with specialist knowledge who sometimes raised concerns about the coverage of a story. The latter were disorganisational in Lash’s terms (2002: 39ff) to the degree that they expressed personal or associational cultural values rather than formally representing
institutional expertise, and privileged affective over analytic meaning. Indigenous users demonstrated their connection to the space of places, reinterpreting political, socio-economic or cultural narratives through lived experience.

*Foreign Correspondent* reporting exemplified a potent alloy of organisational truths – PSB, journalism and empire. Correspondents interpreted the lifeworld of the exotic ‘other’ through the lens of the national imaginary. Stories were selected and produced according to prescriptive news values and institutionalised practices directed to industrially commodified categories of audience. In contrast the *Foreign Correspondent* forum revealed the plurality within TV audiences, providing access for heterodox opinions to be expressed, and for consensual narratives to be challenged.

Although forum debate was always framed by broadcast reports, users often questioned these journalistic proposals. An early forum responding to a critical report on the corruption trial of Malaysian politician Datuk Seri Anwar Ibrahim attracted dissenting posts from users claiming Malaysian heritage. One entered the forum with a pre-prepared statement emphasising the political stability achieved by president Mahatir (whose motives for arresting Ibrahim were outlined in the broadcast report). He later suggested that personal experience had led him to believe that Ibrahim was far from innocent of corrupt behaviour. Another user supported a “reformasi” push in Malaysian politics but denied he was an apologist for Ibrahim, claiming corruption was endemic amongst the “autocrats” who direct Malaysian politics. In a different thread about a report on a controversial Indian film, a user hotly accused both the ABC and SBS of political bias in their reporting of Hindu nationalism. S/he also corrected statements made about political sanctioning of nuclear weapons tests, and aspects of the Hindu faith.

These dissenters did not undermine the dominant or ‘consensus’ view established by normative media procedures. The ABC’s organisational truth, through its association with its persistently articulated (if fragile) ethical framework produced active defenders of *Foreign Correspondent* journalists and some criticism from other users. Dissident posts could, and were, read as pathos v logos: ‘subjective’ (personal, biased and emotive) as opposed to

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10 In this forum, chosen at random and conducted on the 20th April 1999, journalist Tim Lester discussed his report on the trial and conviction of the former Deputy Prime Minister of Malaysia. Reporter Eleanor Hall fielded comments on the Indian film, *Fire* (director Deepa Mehta).
‘objective’ (institutionalised, impartial and logical). Their sources were unverifiable and the authors unknowable. However their effects on the discussion threads were significant.

In each example the thread veered away, if momentarily, from the specifics of broadcast and towards more philosophical considerations. In the Malaysian context it led to debate on political accountability, in the Indian case to discussions of religious and political plurality. Digressions promoted further postings. The centrality of the TV narrative, and the cultural assumptions on which it was based, had been momentarily disrupted. Dialogue restored to the narrative the chaos and complexity of lived associations that had been stripped away in the act of journalistic production.

This is admittedly a limited interpretation of one dialogic moment, proffering singular interpretations of the interactions that took place. However similar patterns recurred across Foreign Correspondent and other current affairs forums, with users raising anecdotal and variously legitimised accounts that pulled debates in different directions. They queried reporter positions, exchanged alternative ones and formulated strategies for off-line action. Broadcasters exposed personal judgements on political contexts, and occasionally gave behind-the-scenes details of how their work was compiled.

In these respects broadcast-related forums can accommodate expressive agency, recognise lived difference and represent critical engagements with media production. They have the potential to act as a bridge between worlds, introducing important opportunities for localised, cross-cultural encounters between otherwise distanced subjects. How these encounters are then experienced and mediated is important to the process of inter-cultural translation, between ethnic or other subsets of the national polity. As PSB researcher Geoffrey Craig argues:

…a broadcasting system in a liberal democratic society needs to do more than facilitate individual liberty and provide expressions of difference…it must also facilitate expressions of unity and provide opportunities for the development of chains of equivalence. We live in a world that is not merely constituted through a particular kind of liberal pluralism of “more choice” but a world where who “we” are needs to be deliberated upon and acted out. (Craig, 2000: 112).
Foreign Correspondent forums were not deliberative in terms of seeking consensus. They worked better to expose interpretative differences and commonalities. Still, if we follow political theorist John Dryzek’s Habermasan conceptualisation of deliberative democracy as chiefly fought out through discursive contests in “the” public sphere (2001: 643ff), then they would seem to have opened out that process to more, and less regulated, voices.

Dryzek proposes that the contestation and hybridisation of discursive traditions (and thus shifts in communicative power) are more likely in environments that encourage knowledge democratisation. His ‘media agora’ theory does not, however, fully address the structural aspects of online media production that militate participatory ideals. First, forums, like any technological sociality, may be exclusive. Second, forum participants do not necessarily seek to explicate or foreground marginalised positions, a failure even of consciously deliberative strategies (Hayward, 2004). Thus any analysis of ABC Online forums as educative socialities needs to consider the case of those who are unable or unwilling to join in public dialogue.

Non-users

Burns (2003: 336) describes the ABC and its websites as “spaces of critical freedom” through which to reinterpret and recreate oneself and one’s memories. Websites are also, as has previously been argued, both technical spaces requiring certain user familiarity with certain skills and tools, and circumscribed, predictable spaces that avoid connection with certain ways of being. So while ABC Online may invite participation, its websites and forums are the terrain of the technate and replicate some of its broadcast exclusivities.

Early research on ABC users based on 1999 Newspoll statistics indicated that a relatively low percentage (11.5%) of Australians used ABC Online at all, despite its high web ratings, and that this was related to socio-economic factors (Martin, 2002). The sample indicated users were more likely to be white-collar workers from households with an income of $AU50,000, which in turn suggested ABC Online attracted the AB and C1 demographics that had always been the ABC’s bulwark. Admittedly these figures provide a crude digital divide sketch, which does not preclude the chance of diverse cultural encounters in different sectors of ABC Online. They remind us though that broadcasting remained the gatekeeper for much web interaction and so pre-filtered potential users.
More interesting are systemic and cultural aspects of online exclusion. In live forums, the space of flows for example, does not elude the place-based time of broadcasting. Most of the ABC’s national synchronous forums operated on Australian Eastern Standard Time (AEST) disadvantaging or excluding users in other time zones. Daylight savings complicated this situation, requiring extensions for Queenslanders. *Foreign Correspondent* executive producer Peter Hiscock said they could not always organise overseas journalists as forum hosts due to time zone differences, so users would not necessarily be able to question the person they had hoped to engage (Hiscock, interview, 2002).

Those who could log on may have faced communications barriers to dialogic participation. Lyotard, building on Wittengenstein’s notion of language games as legitimisation strategies, suggests that dialogue is an agonistic process – played as much for pleasure as for winning, but governed by the rules of connotation, and acceptable social ‘moves’, or rhetorical processes (1984: 11). Yet linguistic groups may have differing communicative styles which impact on their use of, and interaction in, online forums (Reeder et al, 2004). Users can be discouraged from posting to online groups if they think they have poor English language skills, and are worried that their posts would be misunderstood or criticised on that basis (Lotfalian, 1996). So forums may limit the performance of self to a degree that users find discouraging.

How many users then reject forum dialogue because it does not meet their expectations of social interaction? Even in the final *Foreign Correspondent* forum some users wrote that they found the forum interface a deterrent. Posts often complained about the difficulty of following topics using the thread system, and slow response times. Program-makers and web producers expressed frustration that they could not keep up with the demand for interaction due to the forum architecture and moderation procedures (Corcoran interview, 1999; Lester interview, 2002). Moderation too was a contentious procedure, the complexity of which deserves more attention than can be given in this thesis, with users on many ABC Online forums complaining of censorship and questioning the rationale for removal of posts.

So while dialogic mechanisms are indisputably more participative technologies of translation than broadcasting, they may not be accessible, legible or welcoming to all users. As Graham Murdock suggests “current patterns of exclusion from the Internet are produced not only by the costs of personal computing and connectivity but by feelings of incompetence, symbolic
exclusion, and the irrelevance of what is currently on offer” (2004: online). With this in mind, it is likely that dialogic interaction may only re-orientate or transform organisational processes of knowledge formation where users can effectively negotiate the system, where their knowledge is given legitimacy, and where reciprocity is a priority.

The user as critic

Cultural studies theorist John Hartley positions the online transformation of private readers into public writers as a “serious threat to journalism” (2001: 43) as it weakens journalists’ ability to control and construct the public as object. Corrective and dissenting posts do encourage a healthy level of scepticism about media expertise. They launch new lines of personal inquiry. The topic-based ‘thread’ system also allows dialogic flow between users, and a departure from the assertive or mediating influence of the ABC’s exemplars:

You…tend to get your hardcore people who are right into the issue and quite often will happily debate amongst themselves. That’s the beauty of the system...that they don’t have to wait for interaction with the journalist (Corcoran interview, 1999).

However Hartley’s scenario presumes user-generated texts and sites will acquire legitimacy equal to professional journalism.

Interrogative or critical commentary may undermine the status of the expert program-maker, especially where it can be proved he has been grossly inaccurate or unethical. But it rarely diminishes the institutional power of broadcasting. In most cases, the discursive and narrative formations of broadcast knowledge still command an interpellative, affective strength, simultaneity of attention, organisational imprimatur and accountability that lend them legitimacy over individual posts.

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11 As has been the case with blogger critiques of US journalism, which forced high profile resignations and corrections at CBS and CNN (Seelye, 2005)
There is also danger in interpreting all forms of online dissent as effective critique. Synchronous forums, for example, are expressive, explosive encounters that counterpoint and question, rather than comprehensively deconstruct, works of journalistically crafted argument. The dialogue is short, sharp, and impressionistic. Participants struggle to keep up with the constant flow of text. Once the ABC’s synchronous forums were under way, users’ screens were refreshed every minute or so to display new postings. They had to write and read rapidly to keep up with the flow of discussion. This may have prevented them from adopting multiple, nuanced positions on topics and operated to enforce “concision”, Noam Chomsky’s term for conventions of electronic media discourse (such as soundbites) which restrict a person’s ability to speak freely and in detail, preventing dissidence (Herman & McChesney, 1997: 147).

Other factors worked to disrupt signification and interpretation. The operation of stable communicative codes, which underpin Habermasian claims to intersubjectivity, may have failed in practice due to the users’ rush to respond, to bridge the temporal gap between reading and writing. Spelling, grammar, etiquette, context and reflection often fell by the wayside. Thus a combination of ‘performative conditions’ – temporal disjunctures, communicative style differences, technical constraints and linguistic aspects of dialogic performance – may impact on the user’s ability to engage in critical debate.

So it is a moot point whether all users felt able to thoroughly question the rationales of professional knowledge-makers, who were in any case not obliged to respond. What occurred in the ABC’s real-time forums, rather than any sustained, sophisticated review of broadcast programs, was a blunt examination of the exemplars’ definitive hold on producing meaning and an unravelling of the enclosed narrative.

User expertise was highlighted in these encounters. Tim Lester, a veteran ABC correspondent and participant in the debate discussed earlier, said forums were intimidating because users displayed a “frightening amount of specialist knowledge” on some topics and could be “brutal” in their assessment of his work. However he noted that users were less inclined to dispute “facts” than the angles, or narrative focus, of his reports (illustrated in the issues or ideas explored, the selection and presentation of interviewees/ associated images, the interview questions posed, and reporter commentary).
Lester saw this “honest” feedback, often made without an understanding of the “vagaries” of journalism, as a valuable alternative to the careful politics of peer comment (Lester interview, 2002). As elsewhere though, the opening to critique existed in tension with an organisational pull to exemplary control. *Foreign Correspondent* executive producer, Peter Hiscock, argued that it was unlikely that ABC journalists would draw new ideas or approaches from forums as they were information professionals with a full command over the relevant sources (Hiscock interview, 2002).

Hiscock, who closed the *Foreign Correspondent* forum in early 2002, provides an instructive balance to sanguine narratives about the user as critic and the development of a new pedagogical relationship online. He was ambivalent about the value of synchronous dialogue due to the awkward forum interface, the behaviour of some users and the brevity of exchanges. He rationalised his decision to close the forum on the basis that the guestbook provided more “considered” responses and questions.

In contrast this work has argued that self-reflexivity is developed through the act of attempting dialogue, and that online forums foster a disposition towards such exchange, however limited, that is absent from broadcast (and print) forms. Further live forums make public what is otherwise largely private: affective exchanges concerning the formation of mediated knowledge.

Hiscock’s concerns about the perceived quality of that dialogue arguably stemmed from an institutional, magistral leaning, which viewed user contact as a closed loop – as feedback, rather than dialogue. For this reason it is critical to look more closely at the decision to abandon *Foreign Correspondent’s* forum, in order to understand the fragile nature of the ABC’s commitment to online reciprocity.

**A crisis of response**

While giving users a voice had been recognised as a critical aspect of the new media environment, there was less clarity about the ABC’s obligation to a public institutional response. The problematic of dialogic reciprocity was not addressed in policy documents, perhaps because ABC Online provided a more participative environment than broadcasting.
and so appeared to address issues of social inclusion. The 2002 editorial policies included guidelines for management of public dialogic interaction (ABC, 2002a: 26–27) mandating (unless otherwise approved) moderation of posts, publication of moderation guidelines and links to conditions of use provisions. However there were no editorial guidelines to indicate how, or whether, program-makers should respond to other direct email comments, unless they fell into the category of complaints (for which there was an upward referral procedure). Dialogic interaction was an experimental and relatively unfunded commitment. Its provision was dependent on cooperation between broadcast and New Media staff, and often drew on broadcast budgets.

The *Foreign Correspondent* forum closure was a localised decision (in that New Media had no control over the outcome) that staff indicated was forced by financial and ethical difficulties in maintaining reciprocity. The former were pressing. Cuts to news and currents affairs budgets in the 2000/2001 financial year had meant closer scrutiny of program costs. Peter Hiscock had had to reconsider the value of keeping staff on after the television show, sometimes until 12.30 or 1am, to work online. Financial constraints provided a strong case for discontinuing what was a sometimes troubling governance exercise.

The emergence of disorganisational behaviours among regular users provided ethical grounds for abandoning live forums. Some of these users had taken to asserting their claims to dialogic power through dismissive comments and verbal violence. Hiscock said that this minority was a “disruptive influence”, flaming others and, he believed, discouraging them from participating (Hiscock interview, 2002). “Mostly”, he said, regular users would come on to “slag off at each other”, with guestbook complaints reflecting other users’ unease. He argued that this “vile” behaviour was impossible for one person to moderate, particularly when the forum concerned a controversial topic.

ABC program-makers interviewed for this thesis appear to have been taken aback by unruly online behaviours, although their forms had been well documented before the birth of ABC Online.12 Cheyne and Tarulli (1999) suggest the emergence of such behaviours is hardly surprising – even Plato’s Socratic dialogues displayed querulous and satirical elements. Arguably flaming and swearing belong to the dialogic chaos they describe as Menippaean,

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12 See Mark Dery’s edited collection (1994) *Flame Wars*. 
after Bakhtin’s work on the carnivalesque. Menippaean dialogue, they suggest, “is often stigmatized as immature, deviant, sick, or subversive” as it threatens magistral authority and its scaffolding of truth:

Counter moves against incipient Menippeanism may be initiated. Avatars of the third voice may, through various instruments of the state, attempt to re-educate, discipline, cure, shun, silence, or banish the unruly second voice. (Cheyne and Tarulli, 1999: online)

The ABC could conceivably justify such disciplinary action where the risk of harm from online behaviours could be proved, as in the case of online stalking or paedophelic grooming of young users (Ray, 2003). However in the *Foreign Correspondent* instance, producers took a conservative approach to managing common disorderly dialogue, shutting down ‘live’ public interchange.

The move could be presented as an attempt to maintain a safe space of interaction between ABC and users, but user interests do not appear to have been the priority. Users were not consulted about alternative governance measures. They were not informed that the forum was under threat. At the beginning of 2002, a message from *Foreign Correspondent* suggested that forums would be held on a special event basis, but this did not occur. While those early forums were archived, guestbook entries between 2002 and 2004 have since been removed from the website.

So open reciprocity, which the next chapter will show is one of the distinguishing values of public service media online, can also be seen as costly, disruptive and contingent. It is both a consequence and a casualty of informational society. A responsive ABC has been enabled through internetworking, in turn popularised by the commodification of information. Like other forms of what Scott Lash describes as “information-value” (2002: 144), online reciprocity’s primary use is in the present, in the moment of exchange, at the time of curiosity or critical observation. A program-maker’s response is a validation of the user’s quest for

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13 Such as the user policing system used on ABC supported teen fan site *De Grassi High* (Ray, 2003).
14 And yet unlike Lash’s other examples of information ‘garbage’, a timely response to a user query contributes to reasoning.
knowledge, her review or innovative thought – and yet the very speed and simplicity of sending email has seen ABC staff unable to provide that response.

ABC News Online editor Bob Johnston, the primary contact for all online news enquiries, said that he found it difficult to manage the hundreds of emails he received each week now that users could “fire off a heat-of-the-moment response to an editor” (Johnston interview, 1999). He noted that when he responded, users sometimes wanted to continue dialogue creating a greater workload and future expectations of reciprocity. Other ABC producers too indicated they did not have the resources to resolve all user queries. They describe a “conversational overload” (Whittaker et al, 1998) or ‘crisis of response’ particularly in synchronous forums:

I find that you simply don’t have enough time to get to all the questions...you’ll get ten people asking the same thing, and I might only get to answer one, and hope the others will cotton on. (Corcoran interview, 1999)\(^{15}\)

The hanging question is a dead end to the information seeker; a provocation to the mediator. Where reciprocity is not guaranteed it is unclear how ABC Online users will react to future participative offers. In an early study of political interactivity Kenneth Hacker (1996: 228) emphasised the need for producers to guarantee quality, if not the immediacy, of email response because “cumulative feedback” enhanced the social relationship that underpinned democratic communication. The successful translation of governmental programs across cultural faultlines would appear dependent on recognition of critical or oppositional feedback, if not ongoing dialogue.

\(^{15}\) Curiously, the frequently asked question (FAQ) page, a device used to minimise repetitive inquiries, was absent from most ABC Online sites.
Systems theories also point to the value of systemic reciprocity. If we return to the notion of
the ABC as a nodal system whose governmental significance is reinforced through reciprocal
linking, we find that a similar case can be made for dialogic responsiveness. Users too are
nodes in a distributed social system (Gochenour, 2006). They use the internet, for example, to
extend their social and knowledge networks, and to get personal help in decision-making
(Boase et al., 2006). Reciprocity is critical to maintaining the effectiveness of those networks.

I propose that meta-nodes like the ABC that encourage peer-to-peer social interchange can
draw on the positive outcomes of those relationships to incrementally transform and
strengthen their operation as educational technologies. This notion is best illustrated in the
online communities of The Lab, where the cooption of user expertise had an innovative
impact on community building and governmental process.

Knowledge communities

Most ABC forums were time-limited. This transience, and the many structural messaging
constraints, can mean forum users develop only glancing connections and rarely develop
interpersonal ties (McKay & Rintel, 2000). The lack of a recognisable social hierarchy
outside the exemplary relationship may minimise inter-user trust and refocus users on the
authority of the ABC. Forums can function as social supports or learning resources, but they
don’t necessarily engender a sense of community amongst users until they collaborate on
projects with common goals (Cuthbert, Clark & Linn, 2002).

In contrast ongoing forums, like those found in The Lab and ABC Sport websites, appeared to
function more as ‘knowledge communities’, Pierre Levy’s (1997) term for online
collectivities that have a common intellectual enterprise. Levy’s utopian treatise Collective
Intelligence argues this enterprise is grounded in the voluntary production and exchange of
information, and nurtured by negotiation and development of ideas. His model proposes
dialogic interactivity without a fixed hierarchy, in which individuals assume the centre stage
when their expertise is relevant. It draws on the insights of a particular school of social
constructivism, which investigates knowledge building through everyday interactions in
“communities of practice” (Lave and Wenger, 1991). These are social groups established over
time that share activities and are brought together by what they learn through their mutual engagement in these activities (Wenger, 1999).

*The Lab’s* science trivia forum <http://www2b.abc.net.au/science/k2/stn/> (Figure 8) operated like an informal learning community. *Self-Service Science* was a spin off from Dr Karl Kruszelnicki’s weekly national radio science talkback show. During the show (also streamed lived on the web) Kruszelnicki accepted phone-in questions. He then invited users to post answers on his forum, part of his larger website. Sitting in the radio studio with a laptop in front of him, he discussed any answers emailed during the show. Corrections or further research were archived on his ‘Homework’ page, sometimes becoming the stuff of later on-air segments.

*Self Service Science* encouraged users to continue their interrogatory exchange between shows. Its success did not rely wholly on Karl’s or any other broadcaster’s exemplary intervention, or the forum’s synchronous application. Users could post questions or answer each other’s queries at any time, encouraging independence from his authority as a host and from broadcast as a narrative alpha. Organisational truth gave way to an ongoing process of debate and discovery. Users were exposed to the possibility that, in Bakhtin’s terms, truth is “not to be found inside the head of an individual person, it is born between people collectively searching for truth, in the process of their dialogic interaction” (1984: 110).

Like Wenger’s communities of practice *Self Service Science* relied on users having a joint enterprise: the understanding of scientific thought, principles, methods and practices. They also had a shared repertoire of resources for communal use (Wenger, 1999). Users could consult a user guide and a Frequently Asked Questions (FAQ) list. But while they drew on scientific discourses and vocabularies, they tended to use an informal tone that mimicked Kruszelnicki’s radio presence. Posts were often playful and irreverent exchanges, suggesting that the pleasure of the encounter was an integral factor in participation.

On average *Self-Service Science* attracted 350 posts a day in 2001, making it one of the ABC’s most active forums. In seeking to regulate this flow of communications, ABC producers sought the help of those users they deemed exemplary. This changed the security/liberation dynamic mentioned in the previous chapter to a triadic power relation – security/expertise/liberation.
From user to avatar

Situated learning theory, which underpins Lave and Wenger’s initial work on communities of practice (1991) proposes that new members have to learn certain competencies, ways of acting and being to enjoy full community participation. In case of Self-Service Science some of these skills were technical – for example, how to reply to messages, to create new topics or to consult the FAQ. Others related to understanding social practices of online dialogue, including netiquette and moderation. Those users willing to register their full name (or chosen identity) and contact details could escape pre-moderation of their messages and see their contributions listed immediately. The effect of this incremental process of enculturation was to reduce the ABC’s reliance on disciplinary strategies to govern online relationships, in favour of techniques of self.16

Self-Service Science users who demonstrated exemplary dialogic activity were able to extend their influence over the conduct of community and its structure. Long-time contributors who demonstrated expert knowledge, instructive communications practices and/or online technacy were invited to become what science producers called ‘avatars’ – effectively the embodiment of ABC exemplars:

We all know how Dr Karl has a great deal of respect for people who put in the hard yards to discover scientific knowledge. He has even greater respect for the few who take the trouble and effort to share that hard-won knowledge with the rest of us.

One day last year I was chatting to him and he made a remark about how a small number of people seemed to be making quite extraordinary contributions to this forum. He didn’t necessarily agree with everything they said, but he always found them interesting and worth reading.

Anyway, when we introduced the new format, I thought it might be good to provide some way for everybody to easily locate messages from the people Karl

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16 Lave and Wenger (1991) note this process of identification with the group can also overshadow the initial project of learning.
had mentioned – hence the idea of messages in the left pane with the authors name in red.

We also needed some shorthand way to describe these people. What should we call them? The words ‘awesome’, ‘knowledgeable’ and ‘guide’ came to mind. It was only a short step from there before the word ‘Avatar’ popped into my head. (Blame me for this, not Karl).

(Ian Allen, Self-Service Science forum posting, 1999)

Avatars also contributed to forum development, advising web producers on technical issues. They helped to compile the FAQ resource. They mediated on contentious issues, built community and exhibited enjoyment of wordplay in their descriptions of self.17 Their only institutional analogue was the ABC’s National Advisory Council, a body of community members that gave policy and programming advice. Its influence on cultural production however was arguably more diffuse than that of the avatars, who intervened directly in the everyday formation of community knowledge.

The Lab’s avatars are the ideal informational subjects, with skills to produce, disseminate, manage and manipulate information for use in knowledge production. They are not paid for their labour of ideas, but persuaded to work for the ABC by the pleasure and power of engaging in language games and their shared affective investments in the group.18 Avatars are ABC fans. They produce knowledge and participate in the ABC’s learning communities as a way of belonging. Their knowledge is then legitimated via its publication, archiving, and their own social elevation.

Self-Service Science exemplified the circular operation of governmentality. Subjects became exemplary – part of the governing mechanism – through their pursuit of self-realisation. This in turn gave them greater freedoms, such as release from moderation. It did not, however, reproduce a static set of values. Users sought to improve their communications system as an extension of their improved selves. Thus ABC producers coopted external expertise to refine

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17 See the definitions of avatars in the Self-Service Science FAQ, particularly Chris W’s self-description at <http://www2b.abc.net.au/science/k2/stn/>, and the thread ‘Knowledge vs. chat’.
18 Henry Jenkins (2002) provides this last insight into the motives of fan communities.
the ABC’s translation processes: to manage information flows and increase systemic reciprocity.

Despite their potential for conservatism and stasis through enculturation, it is possible for communities of practice to be supportive environments for innovation (Lesser and Storck: 2001). The combination of user expertise and mutual trust works to suggest that new and risky ideas can be worked through collaboratively. Lesser and Storck describe communities of practice as useful techniques for “slow-moving hierarchies” to adapt to fast-moving informational environments where flows may exceed the ability of staff to access or interpret them. In The Lab case, avatars assist a resource-poor institution to respond to technological change.

So web communities and forums are different pedagogic models, but also strategies for program-makers to draw on the insights of informational subjects and employ them in systemic modification. This process of transformation is not restricted to ABC Online. The contemporary ABC depends on users being multimedial and self-regulatory, applying insights derived from one medium to involvement with others. Dialogic interaction is central to the transformation of broadcasting, so that it too can adapt its pedagogical action to an informational context and become more accountable to life in the moment.

Evolving interactivity

Where satellite gave broadcasting speed and immediacy of representational presence, McLuhan’s “instant all at once-ness’ and “total and inclusive field of relations” (1993: 248), online dialogue lends broadcasting a responsive presence. In the wake of the September 11th 2001 attacks on New York and Washington, it took only hours for ABC Online producers to act on a talkback caller’s suggestion that they create an online guestbook where people could express their sympathy for US citizens. The ABC became a site not only for disaster reportage, but for reactive testimonial.

In an informational environment, such social, immediate knowledge is less about “predicative judgements than accounts”, says Lash (2002: 192) and less about neutral observation than responsibility. “You give an account to make sense of what you do, you are accountable for
the consequences of what you do”. The power of these communities is ‘nomadic’ in Lash’s terms (2002: 189ff), discontinuous and fragmented, located in the affective and effective interactions of users and program-makers. Through dialogism users questioned the operation of linear, institutional power, calling the ABC and the world to account.

Users could further transform their mediated learning environment where their situated and procedural understandings were incorporated into broadcast production, modifying the ABC’s representation of sociality. Such cyclic connections were evident in ABC Online and Radio National’s Future Exchange project. Here a series of normally discrete radio programs investigated the social impact of new technologies. Those broadcasts invited listeners to join online forums, where they could extend on-air debates. As users they questioned opinions expressed on-air, offered story suggestions and pointers to further source materials. Email posts to one online program forum were the catalyst for subsequent radio programming, which fed back into the next forum and so on (Vaile interview, 2001).

Such feedback loops occurred cross-medially before ABC Online as radio and television workers poached each other’s sources and reinterpreted existing media agendas. Yet they were largely monologic loops, reproducing existing representative structures. The point made here is that dialogic interaction, which may also include forms of systemic annotation such as collaborative writing projects and participative drama forms, can be legitimated through incorporation into the organisational process, producing morphogenetic loops indicative of an evolving, open system.

As I have demonstrated an interactive ABC coopts the performative user to help it move towards systemic regeneration. ABC Online incorporates techniques of dialogic generation, control and management that constantly update and extend its institutional flows. Websites then become hubs of systemic semiotic expansion. Peacock (2000: 27) loosely describes this phenomenon as “entropic interactivity”, where users are able to create “meaning from fragments, to interpret, contribute, invent, link”.

In the PSB context I prefer to call this mode of reciprocity ‘evolving interactivity’, acknowledging user influence on the structural development of online services and the shaping of media agendas. The limits of evolving systems are defined by the extent to which users are recognised as cultural producers and collaborators. Evolving interactivity melds
representation and presentation, the monologic and the dialogic, with the latter energising the former. The ABC retains its mediatory powers, but users have more opportunities to trouble its certainties and to shape its flows. As performative subjects they may become its flows.

Conclusion

Through dialogic interaction the ABC began to adapt to an informational environment where media were no longer simply pedagogical devices for producing citizens, as much as vehicles for recognising human experience (Lash, 2002: 184). In response to the pressures of social pluralisation and cultural hybridisation ABC Online producers developed a less directive, more social learning strategy online than was possible in broadcasting. ABC Online’s email dialogues were presentational rather than representational: improvised, reactive, fast. They worked as informal, sometimes playful, encounters rather than formal learning, with users questioning rather than unseating magistral authority. Even so dialogic mechanisms became important means for de-centring knowledge production and acknowledging disorganisational influences that escaped the mirrors of its journalistic and dramaturgic professionals.

Forums and guestbooks were technologies of self that validated ABC audiences’ pursuit of knowledge, inviting them to perform their curiosity and critique in the company of others. Forum users exposed difference and dissent to public scrutiny. Their hybrid affiliations – religious, political, cultural – were written into organisational flows, restoring a greater degree of experiential context to temporally and directorially attenuated broadcast narratives. As such ABC Online remediated a civic ideal at a moment when it was elsewhere in decline or being, as David Marquand puts it, politically “hollowed out” (2004: 128).

Forums could act as mechanisms of negotiation and collaboration with the ABC’s entrepreneurial and social subjects, a guarded way of opening the organisation to the information chaos without. Yet forum dialogue was not universal. It favoured a technate, vocal subject. It excluded the unconnected, the unconfident, the technically and culturally marginalised. Posts could be difficult to follow, truncated, compromised – sometimes threatening. Although institutional reciprocity was evident, it was not guaranteed and in the Foreign Correspondent case, was withdrawn.
So neither web publishing nor dialogic mechanisms indicated the ABC’s commitment to a new pedagogy during the period under study. It was producers’ commitment to facilitation, validation and reciprocity of user input that constituted a reformist approach to the government of fragmenting audiences. In turn those producers struggled with a strategy that required an unfunded level of responsiveness and new techniques for social mediation.

The ABC had no monopoly on openness to dialogue. As Australia’s major broadcast and print organisations moved online interactivity became a motif in media production planning and marketing through the commodifying discourse of ‘user-generated content’. The coming chapter considers two factors: how this expansion in web publishing impacted on the ABC’s role in activating citizenship and whether a multimedial ABC could be said to have nurtured a different approach to translation than its commercial counterparts.
The new media technologies make ‘DIY’ citizenship not only easier because of extended choice…but also mutual, because of enhanced interactivity and connectivity. (Hartley, 1999: 187)

Your desktop monitor and WAP mobile phone may open up possibilities for markets. But they are much more than a market. All sorts of information come to them that do not follow the laws of supply and demand…We need to put various sorts of order on the new anarchic complexity. Thus we need frames to order the information, to make it as Mallarmé said, intelligible. (Lash, 2002: 149)

Public service broadcasting has always claimed a special role in providing the political and cultural resources necessary for informed, active citizenship with the aim of ensuring political participation and social cohesion. Yet by 2002 digital channels – TV radio, online and mobile – were proliferating, giving users access to more information and the ability to self-publish. For John Hartley (1999) this signalled the possibility of a DIY citizenship, where you could build your own forms of cultural and political belonging through your use of popular media. This chapter considers whether the growth of online publishing necessarily provides the conditions for more informed, inclusive expressions of citizenship, and how it has positioned the role of a multimedial ABC.

Since the 1990s PSB’s citizenship role has been associated in media studies, and more recently in European policy-making, with the concept of cultural citizenship (Murdock 1999, 2004, 2005; Calabrese and Burgelman 1999; Rowe 2004; Council of Europe, 2004; Lowe and Jauert, 2005; Collins, 2006). That notion connects rights to information, representation and
cultural production with political recognition and belonging. PSB has been promoted as a prime mechanism for enabling the former, to produce the latter. From Hartley’s perspective however paternalist cultural agencies like the ABC are redundant in the face of user sovereignty, channel abundance and “the dawn of the age of inter-activity, connectivity, cyber-democracy and the ‘ünternet’” (1999: 185).

Hartley’s entrepreneurial media subjects are DIY citizens of a “supernational” television community (p. 158). They practice “semiotic self-determination”, bending “centralised, propagandistic, ideological, populist and persuasive modes of communication” to their own purposes (p. 179). Using new media technologies they assemble and refine their ethical selves through symbolic production and mutual interaction, drawing from “a radically decontextualised network of meanings which locate identity in the mediasphere” (ibid).

While acknowledging users’ auto-didactic and performative agency, I argue that informational capital works to displace and circumscribe online media citizenship practices. As Lash argues the acceleration of knowledge-intensive production and its unintended consequences – a surfeit of “out of control” cultural information – produces complexity, disorder and redundancy in the space of flows (2002: 146). Further on the free market internet, it is likely that certain textual interactions will be increasingly delimited by the new logics of informational capital – among them the global circulation of information and the expansion of intellectual property regimes.

In light of these tendencies I propose that an online ABC has two functions that operate in conjunction with its dialogic role. First it provides an enduring cultural context for interpreting, evaluating and debating information flows. Second it privileges information access over information protection practices, thereby supporting the public performance and negotiation of identity through dialogic interaction. In this scenario ABC Online acts as a cultural database – a means of encoding, storing, retrieving and annotating otherwise conditionally accessible data and narrative knowledge.

This chapter begins by outlining a theoretical framework for cultural citizenship that recognises the entrepreneurial citizen and her agency. It then considers in two steps how informational capital decontextualises, delimits and commodifies everyday cultural exchanges, detailing how ABC Online seeks to maintain a public space for the exploration
and contestation of national belonging. In doing so it unpacks the discourse of ‘access’ in terms of technical and social conditions for controlling information flows. By comparing access indicators between seven mainstream media sites, I then demonstrate that during the study period ABC Online functioned more consistently as an open access system than either commercial web services or interactive television (iTV) models.

Activating the user/citizen

Public service broadcasting’s relationship to citizenship has historically been defined within a socio-liberal rights tradition predominant in the UK, Europe and Australia. It brings together two ideas of communicative rights, best illustrated in the contemporary content and carriage policy divide.

The first relates to the ‘right to know’ and is associated with content regulation. Hartley (1999) traces European debate about the civic importance of common access to political information back to the French Revolution. From at least the mid 19th century a connection emerges with media practice through Thomas Carlyle’s (1837) advocacy of journalism as the fourth estate of political life. The more recent conception of the ‘right to communicate’ is embodied in the national provision of telecommunications infrastructure and universal service obligations. The link between communication rights and improving social equity was made to argue for public postal monopolies in Britain and its colonies, and later telegraph, telephone and public broadcasting services (Moyal, 1984; Marvin, 1988). From the mid 1990s the two notions were also combined in liberal British media studies, which promoted broad communicative rights as constitutive elements of a socially negotiated or ‘cultural’ citizenship (Murdock 1999, 1999a, 2005; Stevenson, 1997, 1999, 2000; Couldry, 2001).

Graham Murdock, one of its earliest advocates, declared the need for public access to information and the knowledge to put this into actionable context. He also linked social inclusion to opportunities for cultural representation and access to shared means of interpreting, evaluating and re-producing symbolic resources. Society, Murdock argued, should provide “communal spaces in which the competing positions and claims of specific communities of interest can be brought together and a workable conception of the public good hammered out” (1999: 30), a deliberative ideal he related to the role of public service broadcasting.
This rights model suggests that the entrepreneurial subject of neo-liberal desires can only be universally realised if certain social and material pre-conditions are met. It could also be argued that neo-liberalism gave a rationale for individuals to act as consumers and producers, in the ethical project of making themselves enterprising. Yet the rights model provides a minimal sense of what motivates and sustains enterprise – individual or social. Andrew Barry (2000) proposes that political theory often fails to fully think through the problems of citizens becoming (let alone remaining) active:

Activity is a state which does not come about naturally once constraint is removed. It demands effort, technique and presentation. (Barry, 2000: 4)

This is also true of user critique, creativity and community. The performative user has an ongoing commitment to skills and technical development that needs support well beyond public infrastructure provision (Balka & Peterson, 2004; Van Dijk, 2005). Creating interactive communities demands more than the granting of access to common resources, or even an exhortation to participate. As I have indicated successful online sociality also requires the negotiation of ethical communicative practices within a social governance framework.

So in an internetworked environment the social aspects of media citizenship must be considered alongside questions of access to cultural resources. The BBC’s Creative Archive project is a case in point. It provides the materials and conditions for digital content innovation, but does not provide users greater incentive, technical or ethical skills to work with the content, each other and the institution. The Archive site does not even offer an open discussion group or blog on its development.

Interestingly, until recently there was no strong argument in cultural citizenship theory for access to the means of producing alternative media. This absence may be a historical consequence of antagonism between liberal and Marxist/anarchist media studies traditions (Flew, 2004; Sinclair, 2006), the former supporting reforms to monopoly public service broadcasting and the latter contributing to successful lobbying for community media in Australia, Canada and elsewhere.¹ It is also possibly rooted in a degree of pragmatic

¹ Curran and Seaton (1988) give insight into the range and force of UK proposals for PSB reform.
resignation to regulatory norms, the prohibitive costs of mass production and limited participatory scope of pre-digital media.

A conception of human agency is a means of bridging the individual/community divide between political traditions and recognising citizenship as a fluid, *negotiated* category. Agency can be conceived “in a dialectical relation to social structures”, or “embedded in social relations” (Lister, 1997: 37). In either sense cultural citizenship must recognise peoples’ right to be included as citizens and to be able to mediate social contexts and interdependences to pursue their capacities to act as citizens. Inclusive cultural strategies and pluralistic public spheres are less likely to emerge from economically driven policy than “reflexive practices of self and society” (Stevenson 1997: 42) and not from consumer/citizens, Toby Miller’s (1991) ‘split subjectivity’, as much as *user/citizens*.

Arguably the global popularisation of online publishing and dialogic interactivity has provoked rights-oriented scholars to investigate the impact of these creative media subjects. For example Nick Couldry anticipates the problem of redefining “what rights people have to be included as producers as well as consumers in new flows of information and images” (2001: 12). Marc Raboy’s new media policy manifesto, based on a hybrid broadcasting/telecommunication rights model, seeks to ensure users obtain “the means of communication *both* in their capacity as receivers and consumers of services and as producers and senders of messages” by addressing:

i) how to ensure access to both available content and the means of communication
ii) how to balance universal services and costs that can be left to the user
iii) how to guarantee free choice and fair access
iv) how to distinguish between public communication and private information
v) how to promote both cultural and economic development
vi) how to situate the user as both citizen and consumer
vii) how to facilitate both public participation in society and quality of life

(Raboy, 2003: 12?)
Access is situated as a necessary right to information, a pre-condition for political and cultural participation that demands public intervention.\(^2\) Yet Raboy does not indicate which new media features or functions are critical to encourage participation, what factors might signal or work against public ‘accessibility’, or how participatory indicators might be defined.

Murdock (2005) makes useful suggestions when he expands his catalogue of cultural citizenship rights to include registrational and dialogic activity. Alongside information rights, knowledge rights and representational rights, his internet age list includes participatory rights and deliberative rights. These, he argues, may be addressed using online mechanisms such as web forums and archives. He is also enthusiastic about the potential of the BBC’s Creative Commons Archive project to stimulate user creativity and the institution’s subscription to a creative commons model of culture-making.

However the reciprocity that Murdock rightly locates as a norm of successful online communities is labour-intensive and so, in the ABC context expensive and contingent. Also, as I indicated in the previous chapter, such practices were not normalised across the ABC. The ethics of ABC-user participation were sometimes contradictory. Foreign Correspondent users, for example, were given a space for debate but no voice in the maintenance or eventual dispatch of that space. So PSB scholars employing cultural citizenship theory need to, as Couldry (2001) has implied, pay more critical attention to the processes of reciprocity and mutuality – particularly the way in which these social agencies are enabled in an informational environment and under differing economic models.

In light of declining political support for state intervention in media markets, there is a need to distinguish whether the political externalities attributed to public service broadcasting can now be furnished by the market – or, as a preliminary move, to simply determine whether the online citizenship resources and practices fostered by public service media might differ from those of informational capital. Commercial media also produce forums, archives and collaborative, cross-platform program formats, but with different settings for the construction of the user/citizen. Some of these assumptions can be introduced by further examining the dynamics of informational capital.

\(^2\) See also Rifkin (2001).
The informational context

Informational capital is primarily created through global networks (Castells, 1997, 2000a; Lash 2002; Flew, 2005). The user of these enabling structures is, as Hartley (1999) suggests, a supranational citizen through consumption and mobility. Yet there is no legal recognition of this cosmopolitan status, “no recognizable privileges and duties associated with the concept that would envelop global citizenship with the status and power (in an ideal world) currently associated with national citizenship” (Lagos, 2001: online). In the globalising media environment the provision of cultural resources is increasingly a matter of market dynamics. Although national interventions still pursue desirable social outcomes in audio-visual markets, there is no global mechanism for ensuring representative or participatory equity online – despite the ongoing dialogue of the World Summit on Information Society (WSIS) – and so no guarantee that certain identities or issues will be recognised at this level of association.

 Globally networked relations also deterritorialise information from its cultural context. For Australians stories on CNN, Sky World News and BBC World are largely texts from elsewhere, presented in the cultural symbolism of that elsewhere, “constructing forms of identification from which we are implicitly exempt” (Turner, 2005: 131). The internet too democratises and simultaneously decontextualises or disembeds ideas. What appears subject-related in a Google search may have little or no relevance to the practices of belonging to a specific polity. Superficial connections may be made, for example, between Hinduism in a terrorism-wracked Bali and its violent nationalistic expression in India – an association born of fear rather than understanding of religious difference. Similarly users impose situated knowledges of differing relevance to pan-global dialogues. These citizens of the flows are, if not in a state of “informed bewilderment” (Castells, 1997: 61), then continually pursuing relational meaning.

 Just as some ABC users become disorganisational by participating in online communities, internet users more generally express identity and seek belonging by creating and exchanging cultural information. They establish diasporic networks of nostalgia and resistance (Mitra, 2001; Wong, 2003). They publish blogs and distribute multimedia files. They become part of the flows. In doing so they often add to a new tide of cultural information, or disinformation as Lash (2002) calls it.
Disinformation, according to Scott Lash, is one of two information types characterising the new relations of capital. Type-1 is discursive knowledge. It produces prototypes – intelligent machines or information products that rely on intellectual property laws, licensed reproduction and networks to convert them into power. “Real property in assets primarily accumulates, while the governing principle of intellectual property is circulation” (2002: 144). Lash posits that the discursive knowledge, tools of processing and circulation necessary to produce information prototypes accidentally propelled the growth of a second information type: ubiquitous, ephemeral cultural information such as personal homepages and syndicated email services.

This dynamic can be explained in governmental terms. Expert knowledge systems, such as the nationally supported US and European research networks which sponsored the early internet, spawned innovative techniques for ordering, controlling and managing information flows: computers, networks, databases and search engines. As the cost of personal computing and digital storage decreased, these tools “democratized expert cultures” (Stevenson, 1997) making some forms of knowledge more accessible that were formerly distanced in time and space. At the same time, an industrial push to expand domestic technology markets saw ICTs promoted as new paths to self-actualisation and mobility.

As networks expanded and users became distributors, type-2 flows and disinformation increased. Disinformation, according to Lash, is not misleading information but information without logic or transcendental purpose, facts without a universal framework. Even narrative media forms such as film and drama, he suggests, have begun to take on the brevity, the speed and the disjointedness of television news: “viewable through not the concentrated ‘gaze’, but through the ‘glance’ under the conditions of distraction” (2002: 69). Disinformation is reactive rather than expository, discourse giving way to blogging and instant messaging, without the lasting meaning of discursive knowledge (p. 147ff).

Under such conditions public service systems performed ‘interface’ or mediating functions. I have already demonstrated ABC Online’s dialogic spaces mediated between the discursive and the informational, the universal and the particular. Its websites often juxtaposed expert commentary and analytical content with news and debate. It began to recognise the user as expert, as commentator and collaborator. As a body of text, then, ABC Online provided a
political and cultural context for discussions of national belonging, which necessarily hinge on issues of inclusion and exclusion.

Through its archiving of forums, alongside the representational artefacts of broadcasting (transcripts, audio-on-demand and streaming, broadband video) an online ABC functioned abstractly as a database, an evolving repository of situated and formal knowledge resources that contextualised changing social relations. ABC Online preserved traces of individual identity and collective associations with evidence of their engagement with (or absence from) national debates and their development over time. As Burns suggests it also allowed an understanding “of identity (of individual, institution, or nation) …as being formed from pre-existing multiplicity, rather than the other way round” (2003: 354).

The database supports the maintenance of governmental context against the backdrop of increasing information entropy and social pluralisation. It provides tailored information about, and to, heterogenous populations. It can be an instrument of surveillance for tracking users and their information use, or a means of imposing order on the apprehension and production of information, facilitating user performativity.

Database

The database has been described as the symbolic form of the “computer age”, as paradigm to the syntagmatic representation of narrative; a set of unconditional choices as opposed to the construction of an aesthetic grammar (Manovich, 2001). Equally it could be argued that relational possibilities of a database are encoded into the data it holds (the elements that can be retrieved and manipulated) and into the fields from which the user can draw information (the database interface). The datum as an object and a part, “is a prehension of its own organisation and the domain to which it belongs, a domain constituted within a network of consensual relations” (Slayton and Wittig 1999, online).

The ABC Online’s code layer is composed of various relational databases, some supporting content archives, some underlying forums and others enabling permission-based promotions. Relational databases store information in interconnected fields so that it can be retrieved using key words that stipulate the desired relations. A forum is built on a database of posts, ordered chronologically and with reference to thread titles. It is both message and code, chaos and
order. The database accommodates individual expression, non-referential language use and performativity, but then categorises that information for retrieval by software that operates according to the structural taxonomies of a linguistic system. In a developing system such as ABC Online these opposing tendencies often forced systemic change – as where forum interfaces were altered in response to user practices.

A database should be read as a technocultural narrative, an interweaving of structure, aesthetics and ethical practices for its development and use. It is a product of cultural processes (eg. shared beliefs about the utility and design of technology), and also produces culture, in the sense that it organises texts so that they have relational meaning. Such an object, like the BBC’s Creative Commons Archive <http://creativearchive.bbc.co.uk/index.html>, could function as a panopticon, after Bentham and Foucault’s punitive surveillance architecture. It could simply register user details, their intentions for using digital materials, the locations and instances of use, copyright agreements etc. Alternatively such a database can be imagined as a more open system, exemplified by the ‘wiki’, a networked database application that allows multiple users to contribute to and edit a text, to discuss this process publicly, to collaborate on the production process and altering the text’s structure. Here the archive would be less a record of culture, than cultural production in action.

As mentioned in Chapter 1, the broadcast ABC has similarities with Tony Bennett’s museum, another governmental technique for producing and differentiating cultural communities. In the case of ABC Online however I side with Anne Witcomb’s case – that such technologies work more to expose aspects of difference and fragmentation within, than to impose commonality. Witcomb’s museum, like the online ABC, is a focus for cross-cultural encounters:

…in which the museum, as much as the community, needs to make adjustments. Rather than understanding the museum as a static, monolithic institution at the centre of power, it is read as an unstable institution attempting to come to grips with the effects of the colonial encounter… (Witcomb, 2003: 89).

Just as forums and guestbooks document reactive dialogues of difference, the architecture of ABC Online shows instances of evolving to elaborate ongoing struggles over national identity. After 1997, for example, the Constitutional Convention site became part of an
expanding text on citizenship called *The Common Good* <http://www.abc.net.au/civics/default.htm> which took in the 1999 republic referendum, the Prime Minister’s failed attempt to insert a new constitutional preamble, Open Learning’s *Good Citizen* series on Australian democracy and later the *One World* collaborative civic education projects. Each is an entry point to an unfinished debate on republicanism. The external links catalogue of *Messagestick*, ABC Online’s Indigenous gateway, performs a similar function by pointing outwards to diverse articulations of Indigenous culture and identity online.

These intertextual, evolving expressions of identity, republicanism and indigeneity, are still shaped by the regulatory discourses of politics and race. Yet moments of exposure to the radically other would have been more likely here, and in current affairs forums like *Foreign Correspondent* and *Four Corners*, than where users congregated in affective, disorganisational communities. As ABC producer Peter Hiscock indicated in the previous chapter some ABC Online communities became captured by a small group of users, who he felt excluded others (Hiscock interview, 2002). In more heterogenous communities where no one value group “owned” the space, there were opportunities to see the substance and boundaries of those diverse reinforcing discourses played out, particularly where users engaged with oppositional dialogues. For this reason dialogically enhanced websites that examined issues of societal conflict and controversy provide important spaces for the dissection of identity relations.

Preservation of such polytypic texts is also critical to a broader comprehension of complexity and change in those relations. In 2002 ABC Online’s archival policy had yet to be finalised, but the institution’s pedagogical remit had already influenced its producers’ decisions to archive much past broadcast and web-specific content. The producers of the Asia Pacific gateway, for example, envisaged their site as a hypertextual “encyclopedia” with an extensive database of South Pacific information for educational use, although their plans were only partially realised (Burns, 2003: 237). ABC Online was a rich and widely quoted source of program-related cultural material, whereas commercial web services such as ninemsn, a 50/50 partnership between the Nine national television network and Microsoft, archived little past program-related content.

As a database technoculture, a set of communicative relations based on the use of these ordering objects, ABC Online engineered a play of enclosure and disclosure around the
institution’s cultural output. The database underpinning The Lab, for example, exposed producers to the relentless accumulation and bifurcation of ABC knowledge, but freed them from needlessly repeating research. Users could peruse the scope of the ABC’s scientific ambitions, able to locate points of contention, inclusions and exclusions from its narratives. Forums too used databases, ordering and storing messages to enable dialogic exchange. As such the conditions of translation were subject to greater regulation through digital archivisation. This gave the appearance of granting greater individual control over the act of communication.

Choice and context

Databases are usually portrayed as enabling choice: the liberty to self-select informational relations. Their algorithms make manageable information resources that are otherwise beyond our physical capacity to assimilate and select (Featherstone, 2000). Lev Manovich (2001) opposes the database and the narrative as paradigm, the set of all possible symbolic relations, and syntagm, an expressed arrangement of these. As cultural form ABC Online tends to privilege paradigm over the syntagm, where users’ cognitive and expressive activities can counterpoise the directive sequencing of broadcasting.

However these freedoms operate under certain conditions. Content databases do not simply oppose the hegemonic tendencies of journalism, which orders random events according to a suite of cultural practices, imposing institutional sense on external chaos and with it determining social deviance (Hartley, 1982, 1994). To some extent databases reinforce this process through the politics of structuring, encoding and searching. Certain types of data and certain data relations are given significance, increasing their likelihood of being examined, while others are made invalid. Only after this stratification occurs do users have the opportunity to reorganise and reinterpret the artefacts of organisational sensemaking. In the first instance content databases provide users control over information flows without undermining existing representational hierarchies.

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3 Although this a simplistic difference where databases contain and organise narrative objects.

4 For example, each content database has its own relational data structure or schema – comprised of associations between ‘tuples’, or records and ‘attributes’, or fields; its own search algorithm or query language; and a unique interface for user access – in which information is framed.
This power dynamic shifts when users are able to build individual context into the database. User contributions to forums and guestbooks, where they were archived, ensured ABC Online assumed a more multiform databody. However user knowledge was not valued to the degree seen in open databases like the Wikipedia encyclopedia <http://en.wikipedia.org>, which depended on users to initiate, steer and monitor collaborative knowledge production. ABC Online limited its dialogic permissions and did not index user posts. Their comments could not be searched or retrieved with the same ease as institutionally-produced materials. So while ABC Online worked as a form of collective or public memory (Burns, 2003), user knowledge was the unconscious to an institutional preconscious.

Nevertheless in the early 2000s ABC Online did preserve many user interchanges together with elements of formerly ephemeral programs: audio on demand files, transcripts and broadcast details. Its web interface was liable to change, but the relative persistence of many resources permitted users a greater degree of reflection on meaning than analogue broadcasts. Reactive use could be balanced by reflexive use and reuse. In these terms, ABC Online provided a durable contextualisation of ideas developed in many information genres, including broadcast news and current affairs.

Contextualisation is not a redundant function even in a multichannel environment. Murdock (2005) argues that a precondition to cultural citizenship is access to comprehensive and disinterested information about the workings of power. In order to analyse and critique mainstream political discourses it is arguable that users also need access to locally relevant, multi-perspectival news sources over time. Bruns (2004) suggests that such needs will increasingly be met by online aggregation services rather than single publishers, and will include a range of specialist, collaborative and open source networks. But none of the networks he reviews guarantees reliable, generalist reporting of institutions, power and conflict, or archiving of that coverage in the public domain. They are niche providers and gatewatchers, responding to the particular interests of their users rather than the benefit of a national community.

In 2002 ABC Online was the only Australian web news publisher to offer unrestricted, free access to daily local and national, TV and radio current affairs archives. These included story transcripts, audio and, less often, video clips with some links or source materials. SBS provided a similar service in terms of international news and current affairs. ABC daily news
was reliably retrievable online for only two to three weeks, due to prohibitive cost of content management systems needed to manage the ABC’s multiple network outputs (Johnson interview, 2001). Even so Australia’s print-originating online services like news.com and f2 gave just seven to ten days access to general news stories, after which users had to micro-pay to retrieve articles. Ninemsn offered seven days free news access and persistent access to current affairs stories (meaning records weren’t deleted after a certain time) but only paid access to fact sheets and video content. i7 published limited Today Tonight and Sunrise text archives.

This is not to elevate the cultural significance of news over other forms of knowledge production. A cultural database needs to act as more than a catalogue of information resources. It might provide opportunities for empathic creativity (Murdock, 2004) or social interaction between diverse audiences (Brookes, 2004). As I have indicated in earlier chapters, pleasure in creativity – through play, discovery and language games – is a strong driver of online participation, knowledge formation and representative diversity. But in this alone ABC Online was hardly unique. The web offered many thousands of arenas for social interaction, the performance of self and contestation of identity. Instead ABC Online provided a key ingredient for these encounters – namely public access to information that tended to be locked up as media competition increased.

The information commodity

Earlier I argued that the domestication of interactive multimedia tools accelerated both the production and commodification of type-2 cultural information. In the decade following the birth of the web, networked personal computers were central to the growth of new modes of self-expression such as personal homepages and blogs. These activities were rapidly appropriated by the media industry and re-purposed as unpaid “cognitive labour”, to use Franco Bifo’s (2003) term for information-based work. Bifo concentrates on the intellectualisation and immaterialisation of this labour, but undervalues the extent to which user communications were also playful, reactive, concrete and social.

Gaming communities generated innovative content for commercial redistribution as a pleasurable, collaborative activity (Banks, 2003a; 2003b). Email gossip became the business model for satirical political magazine Crikey.com (Martin, 2006). Amazon adopted shopping
data and personal ratings as a marketing tool (Linden, Smith and York, 2003). Blog commentaries supplemented traditional news. While the ABC coopted users to rework its governance strategies, such creativity became an integral part of the commercial media value chain (Humphreys et. al, 2005). In the process Lash’s media ‘garbage’, flows of ephemeral significance (2002: 150) were turned into a capital advantage.

So the conditions of information excess and commodification were inextricably linked. In liberal societies the gift economy of the early internet, mythologised in Kevin Kelly’s “Law of Generosity” (1997), was later refined as a marketing technique – the invitation to perform one’s self online. Before the NASDAQ crash online services offered free site hosting and email to attract users and build client bases. Afterwards media corporations built forums, chat and personalisation devices into existing broadcast strategies to promote programming (McKay and Rintel, 2000) and reinforce viewer loyalty (Martin, 2006). Even the fan manipulation and parody of industrial property such as films or games was sanctioned where it successfully promoted a brand (Jenkins, 2003). In the early 2000s opportunities for quasi-regulated self-expression were plentiful online.5

Less accessible, and consequently more valuable, was information that required considerable investment to acquire and process – in-depth analysis, specialist information, news archives and unique content, such as live sports.6 In the US increased competition pushed news media outlets to balance diminishing advertising revenues and circulation by allocating fewer resources to original reporting (Project for Excellence in Journalism, 2006). In screen production larger budgets were allocated to fewer projects of greater reach (Higgs and Kennedy, 2003). In a multichannel environment type-1 information forms were increasingly available to niche audiences on subscription, as in bundled pay TV services.7

Other industry fundamentals worked against free-to-air or public domain information access. Ongoing database costs such as software licensing, maintenance and copyright made pay-per-

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5 By quasi-regulation, I refer to industry controls found in the strong digital rights management regimes encoded into “trusted computing” systems, such as Microsoft’s Next-Generation Secure Computing Base (NGSCB), and broadband television architectures. Trusted computing systems could constrain users’ ability to use unauthorised software, or to copy and exchange data outside industry specifications (Ericson, 2004).

6 See for example Hans Beyer’s (2004) findings on what online newspaper users might pay for.

7 Such conditional access environments subsequently produced technical and programming bottlenecks to pluralism (Marsden, 2000).
view arrangements more attractive to commercial players.\textsuperscript{8} New media research and development costs increased pressure on companies to develop cascading markets from successful ideas as insurance against prototype failures (Keane and Moran, 2005) and to warehouse, or lock up, creative rights to as yet unprofitable or unrealised modes of delivery.

Although distinctive ideas become more valuable through mass distribution (Leadbeater, 2001), conversely the logic of distributed reproduction ensures a decline in the public availability of that prototypic knowledge. Circulation technologies increasingly delivered information to representational media, rather than the latter gathering, filtering and producing it. In a “post-journalism” environment public relations firms delivered it free and publication-ready (Turner, 2005: 91). Media paid for access to ready-made information networks (news agencies, internet access, syndication and output deals) and franchised successful program prototypes rather than researching and creating new products. Even alternative online news sources depended largely on collating, annotating, and critiquing existing media (Turner, 2005).

As a corporation the ABC was party to these informational shifts. From its initial CD-ROM foray to its online news licensing contracts executives sought to capitalise on the organisation’s intellectual properties. During the study period ABC applied similar digital rights management approaches to its commercial colleagues, including the warehousing of rights (Higgs and Kennedy, 2003: 48). The direction of its move online was, however, influenced by its Charter direction to inform citizens and its ethical objective to improve them.

These principles guided the development of ABC Online in an access trajectory, so that in general it left saleable cultural information like its news databases in the public domain, preferring non-exclusive licensing deals, and archived program materials as educational resources. These concessions were important in ensuring information accessibility in Australian new media markets, where ownership was concentrated in few hands.

\textsuperscript{8} In at least one case fear of retrospective rights claims by freelance writers led US newspapers to purge their database records (Carlson, 2002).
Concentration and diversity

In 2000 four of Australia’s established players (print and broadcast) dominated new media markets. They owned, or provided content for, seven of the ten most popular Australian websites (Productivity Commission 2000: 306–307). By mid 2002 ABC Online and the Fairfax Ltd newspaper group’s f2 site were the largest content domains, but the most accessed media websites were those with global affiliations – ninemsn.com and news.com, owned by Rupert Murdoch’s News Limited. i7aol.com, a co-production of the Seven television network, US Network NBC and AOL/Time Warner was a new but significant presence.

Minor broadcast players included Network Ten, which linked to the popular Big Brother site and sbs.com, a small-scale operation which, like Ten, relied on several allied program sites for content. Commercial radio networks were also marginal players. Among the telecommunications players telstra.com run by Telstra, Australia’s largest communications provider and Yahoo! Australia were consistently the most accessed local portals. Large new players in the broadband content market included ISP and portal operator Optus@home, a joint venture between Cable & Wireless Optus and US Excite@home and Austar, a pay TV operator which was the first to embrace iTV in Australia.

When investigating the need for new media ownership regulations, Australia’s Productivity Commission indicated that media markets were broadening, but did not conclude that an increase in digital media services offered any guarantee of access to increased information diversity.9 While “diversity of programming may be enhanced”, it noted, “diversity of sources of information and opinion may not” (2000: 310). The Commission argued that many old media players retained a strong presence in new media markets, particularly in content provision, and noted the trend towards re-packaging of the same content for “different purposes and outlets” (p. 308). The availability of ideas, it said, was a more relevant indicator of diversity than health of the advertising market, and suggested that in “a marketplace for ideas the supply of information and opinion (not entertainment) is the crucial issue” (p. 351).

Even in a developing multichannel environment this review suggested an extant case for state intervention to ensure media diversity and to compensate for market failure, where some

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9 The Productivity Commission takes primary institutional oversight of Australia’s competition regulation policy.
types of programming were not commercially viable. As a result of pay TV debates the Commission also recommended measures to address third-party access to new telecommunications platforms. However in its broadcast focus it largely overlooked control issues in broadcast-associated online services, such as the effect of proprietary interfaces on information access. The Commission did not, for example, examine whether ideas were equally accessible to all online users, regardless of medium, platform or software, or whether they were archived for future retrieval.

Access to digital information is partly determined by the technical architecture of communications systems, its code layer. This is illustrated in Chapter 5, where ABC producers had to determine how to facilitate broad user agency by devising universal measures of information accessibility, such as base browser standards. Intellectual property scholar Lawrence Lessig stresses that code can be written to constrain or enable social behaviour and so should be a focus of regulatory scrutiny. This is particularly important, he argues, to protect collective values and decision-making processes from market control: “The invisible hand, through commerce, is constructing an [internet] architecture that perfects control” (Lessig 1999: 6).

In new media publishing rights to the semiotic means of cultural citizenship are increasingly defined by code-related access factors. In the final sections of this chapter I suggest that under the conditions of informational capital, one manifestation of market failure in the Australian context is a lack of access to particular types of online content that could be considered merit goods such as news and forums. Accordingly one of a public service publisher’s new governmental roles is to develop access strategies enabling free information exchange with and between heterogenous populations of users.

Questions of access

In information technology literature, access is generally defined as the opportunity to obtain and use information, social networks, services and technologies (Dutton, 1999) factors which I indicate shaped the construction of national ABC Online websites for a naïve, regionally

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In 1999 the NSW Communications Law Centre noted that the ABC was, for example, the only consistent Australian producer of some forms of programming such as radio drama and parliamentary television, and the dominant outlet for children’s television, regional radio talk and radio news and current affairs.
based user. However Van Dijk (2005) usefully rejects instrumental definitions of accessibility based solely on having computer or internet connection. He interprets access as a social phenomenon, delineating four broad categories of activity that contribute to getting users online: motivational, material, information skills-based and usage factors that distinguish degrees of technological appropriation.

During the period of this research many public broadcasters extended their universal service commitment to providing the conditions for online participation. The BBC, for example, demonstrates an interest in delivering on Van Dijk’s first two factors by motivating UK users to adopt information technologies and supporting the provision of communications infrastructure. During the early 1990s it was an ISP, promoted its own computer brand and established computer clubs (Naylor, Driver and Cornford, 2000). Less well-resourced ABC web producers focused more on skills and usage: providing guides to online devices and processes and ensuring ease of site use by designing intuitive interfaces and setting access parameters, such as file size restrictions for quicker downloads.

In most industrialised countries commercial players, while interested in promoting high service use, had no requirement to deliver access outcomes in narrowband or broadband markets. Even prior to the dot.com crash commercial online services were moving to pay-per-view and other conditional access regimes as risk management strategies, in order to offset the uncertainties of technology and content development investment (Goggin, 2000). While this raises social equity questions about users’ ability to access some types of services, conditional access does improve market efficiency in terms of responding to user demand for services. This is part of the current case against state intervention in Britain’s digital markets:

…key consumer market failure arguments advanced over the years in support of public intervention in broadcasting are now much less persuasive – broadcasting is no longer a pure public good, for example, as conditional access technology allows consumers to be excluded from services they have not paid for; and consumers have access to a vast amount of information about the programmes and services available to them, which reduces the problem of insufficient information, once felt to be a significant market imperfection. In a multichannel world, with a mix of pay and advertiser-funded services, the market will provide for most direct consumer demands. (Foster, Egan and Simon, 2004: 4)
However there are instances of market failure that have arisen in this field, notably information asymmetries where users of digital services may not have sufficient information about potential choices, or market participants have been constrained from entry. For example where distributors, such as cable companies, controlled digital delivery channels they had the potential to restrict user access to competitors’ products and services (Chester, 2001). In European case studies companies were positioned to act as gatekeepers on new delivery platforms, for example, encoding interactive TV set-top boxes to disadvantage producers of third-party content, applications or systems (Marsden 2000; Goldsmith et al, 2001; Varney, 2006). The European industry development experience, while significantly different to the relatively isolated Australian circumstance, is relevant in terms of technological and programming trends.

Other UK research on potential market failures had particular salience for the Australian experience. Foster, Egan and Simon (2004: 7) point to problems with concentration of ownership and loss of information plurality, as well as fragmentation of audiences –leading to “risk to investment in content, and possibly a threat to quality” and undersupply of certain program types. As indicated earlier these tendencies are heightened in Australia’s considerably smaller markets, making more significant questions about access to information generally, to certain types of high cost/low return content and modes of interacting with content producers.

To assess any differentials in Australian industry approaches to online content accessibility, in mid 2002 I undertook a brief comparative study of seven major media websites. These comprised the online services of Australia’s largest news media publishers – its two largest print organisations, News Limited and John Fairfax Limited, three major metropolitan television networks, Seven, Nine and Ten, and two public service broadcasters, the ABC and SBS. The results of the access study are summarised in Table 1 below.

The survey first considered the site code: whether sites were platform neutral, that is, whether they responded to different end-user computing technologies or demanded mandatory use of propriety soft- or hardware.11

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11 Disability access factors, which include some provisions for ageing users (see World Wide Web Consortium, 2004), were not considered for the purposes of this survey.
Table 1: Comparative user accessibility: major Australian media websites May 2002

<table>
<thead>
<tr>
<th>Website</th>
<th>Platform neutral</th>
<th>In house news/caff forums or chat</th>
<th>Community publishing</th>
<th>News archive (user cost?)</th>
</tr>
</thead>
<tbody>
<tr>
<td>ninemsn</td>
<td>no</td>
<td>• no news forum</td>
<td>yes</td>
<td>no</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• c/aff and program forums</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>• chat restricted</td>
<td></td>
<td></td>
</tr>
<tr>
<td>news.com</td>
<td>no</td>
<td>• no news forum</td>
<td>no</td>
<td>yes: limited free period</td>
</tr>
<tr>
<td>f2</td>
<td>yes</td>
<td>• blog only</td>
<td>no</td>
<td>yes: limited free period</td>
</tr>
<tr>
<td>i7</td>
<td>no</td>
<td>• no news forum</td>
<td>no</td>
<td>yes: AOL users only</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• program forums</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>• chat restricted</td>
<td></td>
<td></td>
</tr>
<tr>
<td>SBS Online</td>
<td>yes</td>
<td>• Publishes selected news feedback</td>
<td>no</td>
<td>yes: limited free period</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• guestbooks</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>• third-party program forums</td>
<td></td>
<td></td>
</tr>
<tr>
<td>ABC Online</td>
<td>yes</td>
<td>• news and c/aff forums</td>
<td>irregular</td>
<td>yes: undefined free period</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• guestbooks</td>
<td></td>
<td>free persistent daily &amp;</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>weekly c/aff</td>
</tr>
</tbody>
</table>

Three of the seven sites appeared platform neutral, two of them public service broadcasters and the other f2. Using a Netscape browser rather than Internet Explorer resulted in display layout errors, and only f2, ABC and SBS online functioned equally well with all platform and browser pairings (including the earlier Netscape) (Martin, 2004). Most sites required browsers use proprietary ‘plug-in’ software designed to give them additional multimedia functionality. Some features on both ninemsn and i7.aol, such as chat rooms, were not available to users of Macintosh, linux or other platforms than Windows. The i7.aol news archive was only accessible to AOL users.

Commercial systems tended to support Microsoft’s software market dominance and their own proprietary alliances over user choice of operating system or universal user access. The ABC balanced open publishing standards with a choice of proprietary applications, rather than demonstrating a preference for open source technologies. The commercials offered only the dominant brand Windows Media Player (WMP) to play back audio or video files. The ABC
offered a choice of WMP or Realplayer on the majority of sites. SBS offered both Realplayer and standard mp3 files, though not as options for the same material.\textsuperscript{12}

I then examined the site content: whether sites had features that were exclusive of non-paying users or provided dialogic mechanisms to discuss current events or news archives. All sites bar the ABC required payment for news archives after a set period, although SBS had abandoned this practice by the time of writing and developed a free world news archive. The ABC’s failure to develop a more robust content management system for its news archives stands out as a missed opportunity for ABC Online to act as a freely accessible journal of record.

Only the ABC provided both news and current affairs forums, although ninemsn’s \textit{A Current Affair} and 60 Minutes shows had unhosted forums and f2 offered users the chance to send commentary to Margot Kingston’s webdiary. News.com and f2 did not have a forum focus. SBS, i7 and ninemsn provided unhosted web forums on some drama and general programming. The ABC provided the broadest range of public, annotative mechanisms, although all were pre-moderated, and the most live, hosted forums of any media service. Commercial services offered largely unhosted forums, as did SBS, which relied heavily on third-party program sites to enable user participation.

Using this limited set of accessibility indicators the ABC of mid 2002 appeared to engage more broadly with access issues than other major online media services. Yet there were apparent exceptions – such as ninemsn’s community publishing feature, which attracted diverse cultural uses including political debate and activism. Registered members of ninemsn could generate their own discussion group from a site template, with 3MB of free storage and the opportunity to post images. In 2002 ninemsn was home to hundreds of such communities, many of them political associations, but also educational, hobby and family groups. However where the ABC and ninemsn share an enthusiasm for the forum genre, a closer analysis of the relationship between ninemsn and its users, via its user contract, reveals a different style of discursive interaction.

\textsuperscript{12} Unlike BBC Online, whose exclusive use of Real Networks streaming software was questioned as an effective delivery strategy because it could deter users of Windows Mediaplayer or “cause confusion to inexperienced users” (Spectrum Strategy Consultants, 2004:7).
Informational and discursive ethics

At first glance the ABC’s preference for moderated, expert-mediated dialogue was more directive and less open than that of ninemsn. ninemsn’s DIY groups were largely self-regulating or, more precisely, controlled first by whoever set up the forum templates in accordance with a corporate code of conduct. However group dynamics were not necessarily less hierarchical or disciplinary than those in ABC forums. Microsoft reserved the right to “at will and without notice, remove postings or ban participants that are deemed objectionable or that violate” its code of conduct. Founders could control membership and close groups to outsiders.

User registration was a condition of site access. In registering to join ninemsn communities users traded personal information and all rights in their collaborative contributions for representative and performative space. Ninemsn reserved the perpetual, royalty-free, all-encompassing right to “use, copy, sublicense, redistribute, adapt, transmit, publish and/or broadcast, publicly perform or display” user information, and to sublicense these rights to any third parties (Ninemsn, 2002). In doing so, it positioned active citizenship as both a commodity and a contractual activity. In such relationships user-producers are placed at a legal disadvantage in opposing institutional resources (Humphreys, 2004). Nine had more contractual control of users’ databodies than it could exert over their viewing corporeality.

These automated, self-moderated spaces were an archetypal response of capital to the conditions of an information society – designed to encourage ephemeral interactions that would increase flows to ninemsn. As community groups grew they encouraged repeat traffic to ninemsn, increasing its webratings and advertising value. Aside from a code of conduct there was no vetting of proposed community objectives or perceptible monitoring of their activities so it would appear their contemporary use-value was of little consequence. Ninemsn’s assertion of rights to the forum content was a guard against the possible emergence of value. Their industrial significance was, as Lash (2002) might have it, chiefly informational: valuable only in the instant of the transaction and circulation.

The ABC too claimed encompassing rights to user contributions. However its investment in hosting and moderating open forums positioned users as subjects of ethically accountable and existing discursive communities. Interviews for this thesis have found evidence that some
ABC producers considered forums more as an outlet for user self-expression than mutual interaction, but hosting and moderation were clearly attempts to create a space for accountable, civil interaction.

In contrast the lack of moderation on most commercial forums was consistent with a neo-liberal ethic of minimising coercion. This exposes a classic communicative paradox – where individuals disrupted or railroaded forum discussions they could compromise the ability of others to pursue dialogue and mutual association. Furthermore there was less impetus for commercial producers to read or respond to user posts on unhosted forums (Schultz, 2000; McKay and Rintel, 2000) making institutional reciprocity also less likely than in existing participatory media forms such as talkback.

Since 2002 there has been a general move from the sites surveyed towards greater platform neutrality and dialogic interaction, but my broad findings remain valid. In terms of cultural citizenship ABC Online supported and mediated user agency in ways that were of less potential economic benefit to commercial publishers, or breached their contractual alliances. It generally pursued open standards and choice in proprietary interface technologies. There were even vestiges of its Reithian heritage in attempts to educate users in technical matters. While all media sites surveyed had privacy policies only ABC Online explained the use of cookies. Finally while it coopted user creativity to extend its own governmental effectiveness, its objectives were more pedagogical than economic. For example, ABC Online’s user registration process was less extensive than that of commercial sites and was primarily a form of social control rather than a commodification strategy.

Hartley’s Hoggartian conception of media citizenship (1999), which dismisses the case for state intervention in information provision, overstates user autonomy in the commercial multi-channel environment. Hartley admits he sidesteps political theory and in doing so ignores how informational capital works to decontextualise cultural resources, limit access to discursive knowledge and circumscribe user control over media production. These tendencies somewhat undermine ideals of active citizenship based on an assumption of semiotic self-determination.

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13 Data files recording site use behaviours which are automatically stored on the user’s hard drive and can be retrieved by a remote website on subsequent visits.
This outcome is more transparent when we consider the technology of digital television, with which the web has been predicted to converge. In the next chapter I will discuss the ABC’s contribution to this emerging technology, but here I want to contrast its technocultural operation to that of the Internet.

So far in this thesis I have opposed Michael Tracey’s (1998) wholesale denunciation of interactive communications as a socially fragmentary trend, arguing he ignores the potential of the Internet to enable dialogic interactivity, networked sociality and collaborative creativity. Tracey’s fears appear to have been shaped by the prospect of multichannel iTV rather than the Internet, about which he says little. Still, his concerns about the survival of public service media are relevant where the institution’s primary developmental focus remains the intensification of broadcasting. By this I mean that if web publishing is regarded as a transitional phase in a linear trajectory towards interactive television and ‘greater audience choice’, then public broadcasters are undervaluing the importance of their online interactions with user/citizens.

iTV, IPTV and broadband

The interactive television industry subscribes to the neo-liberal rationale of facilitating individualism, but its concern is the profitable governance of choice. In the late 1990s Australian debates about digital television had focussed on signal quality leading to mandated high definition (HDTV) carriage alongside standard digital services. In the early 2000s as Australia’s domestic uptake of the internet reached 53 per cent of households (Australian Bureau of Statistics, 2004), and exceeded that of subscription multichannel television and digital television, iTV proponents attempted to re-appropriate the discourse of consumer sovereignty associated with the Californian evangelism of online publishing. iTV was re-marketed as a personalised medium, offering users choice and control (Budde, 2006). There was, however, a contradiction between this rhetoric and industry practices which sought to delimit user autonomy.

iTV, as delivered via cable, satellite, microwave or terrestrial technologies, offered users representational enhancements of existing televisual content (multiple camera angles, banner information), time-shifting of programs using personal video recorders and video on demand, and new program forms (such as the BBC’s multi-thread narrative Walking with Beasts).
Internet protocol television (IPTV), a subset of iTV delivered via closed (subscription) or open (internet) protocol broadband networks, also promised users the integrated two-way capacity of broadband internetworking.

At the time of writing, most iTV services included applications such as electronic program guides, voting, games, email, chat rooms and e-commerce. These applications were dependent on middleware systems, software agents usually integrated into set top boxes that handled data management tasks such as user authorisation for applications. Such systems, including proprietary devices from Liberate Technologies, Open TV and Microsoft TV, generally enabled users to send information back to the broadcaster – although ‘back’ or ‘return’ channels varied depending on the delivery platform.\(^{14}\)

Middleware acted as a technological intermediary between the content supplier and user. It also added a new layer of control and surveillance to the existing broadcast dynamic. Some middleware systems were designed to deliver circumscribed access to web content using enclosed information architectures, ‘walled gardens’. These did not necessarily provide on-access to the open internet and were sometimes promoted as filtering devices against, for example, pornography (Chester, 2001). iTV users could vote, play and buy via middleware agents but their interaction was primarily selective rather than dialogic, and centralised rather than decentralised. Chat, instant messaging (IM) and SMS text were features of some iTV systems, but iTV users could not build listservs or other distributed socialities, and could not initiate peer-to-peer information exchange. iTV forums melded remote messaging with in-studio audiences, but only through the intermediary of the host and primarily in games, rather than debate.

In turn user interactions offered new grids for audience metrics. Middleware could collect, store and forward a range of data on user behaviours. Service use or ‘click stream’ details such as SMS location or time of call could then be matched to ratings data or subscriber details. Personal video recorders such as TiVO, which had initially been seen as disruptive to existing television scheduling practices, were rebadged as measurement and marketing tools (Carlson, 2006). The proliferation of media distribution technologies led to intensified industry research into a cross-platform or universal metrics methodologies (Martin, 2006;\(^{14}\) Britain’s early Freeview system was an exception.)
Sunderland, 2005). So in contrast to an internetworked environment that enabled users to produce, manipulate, store and distribute content, 21st century iTV was developing as a technology that restricted user autonomy to more sophisticated forms of consumption and response.\textsuperscript{15}

Interactive features extended television’s governmental capacities, but did not give it the architectural or end-user flexibility of the Internet. Where the Internet operates on a principle of voluntary global network cooperation (Zuckerman and McLaughlin, 2003), increasing transmission speed and spatial reach, most iTV networks are proprietary, subscriber defined and territorially circumscribed. As Tom Worthington (2002) notes even the open standard European Multimedia Home Platform initiative (MHP) supported a closed business model much like that of wireless application protocol (WAP) – user pays rather than gift economy. MHP architectures were not designed to enable user modification and re-distribution of content.

So while iTV involved the development of agreed technical standards, the application of dialogic interaction and databases, it did not replicate the distinct technocultural relations emerging from online publishing. Even a technological zone was difficult to establish beyond national boundaries. The MHP standard, designed to provide a global cross-platform alternative to proprietary set top boxes had, in 2006, become the centre of a licensing struggle that was deterring prospective national markets across Europe (Wireless Watch, 2006).\textsuperscript{16}

By 2002 the ABC had screened two iTV series – its own pioneering interactive television documentary \textit{Long Way To The Top} and the BBC’s \textit{Walking with Beasts}. An ABC press release said \textit{Beasts}: “offered various levels of interactive content designed to suit all entry levels” (ABC Corporate, 2002a). Yet all the options were selective: “viewers can view the programme in a linear format, change narration for a more in-depth scientific running commentary or can call up on screen facts during the transmission.” The four parallel video streams that comprised the series package were simply an intensification of the existing broadcast paradigm. These iTV experiments failed to realise the synthesis of citizenship

\textsuperscript{15} Van Dijk (2001) notes that significant innovations in interactive services have come largely from internet rather than television producers.

\textsuperscript{16} In this case the patent contributors’ protection of their prototypic rights militated against low-cost, transparent licensing structure and threatened to unfairly penalise small, non-commercial broadcasters (Smith-Chaigneau and Bristow, 2006).
models supported by narrowband ABC Online – supporting user participation in public arenas and their rights to a response as producers of cultural materials.

Nor had broadband networks delivered a paradigmatic shift in public service media. At the end of the study period broadband internet was considered to be a high speed connection greater than 200 kilobits per second (kbps) (Parliament of Australia, 2002). Broadband accelerated informational effects in that it offered faster exchange of audio-visual data. However in Australia take-up of residential services was low, according to a parliamentary research note, partly because consumers “appear to be reluctant to subscribe to services that simply provide ‘more of the same’ through a new media window: the slow take-up of pay television is a case in point. At the moment it seems that the promise of quicker and easier access to movies, music and the Internet is not attractive at the prices being asked.” Like the ABC’s early narrowband service the ABC’s broadband channels, starting in 2001 with ABC Broadband News, largely re-purposed existing broadcast material – with the exception of the youth channel Fly. The innovation was in ABC Broadband’s hybrid web television interface, rather than most of its channel content – a factor that will be explored in more detail in the coming chapter.

Conclusion

In this chapter I have demonstrated that the proliferation and intensification of online information does not guarantee the production or visibility of certain cultural resources (such as regional news) nor their persistence in the public domain. More people can now have a voice online, but each fights to be heard. As such the nation is a still potent political and cultural context in which the politics of difference can be played out and critically examined. The internet makes recognition and reciprocity possible across space/time barriers to face-to-face communications and outside existing social groupings. In doing so it expands the potential for user confrontation with the non-self. Forums provide the mechanisms for those dialogic encounters, but it is the database technology that makes the exchange possible, archivable and retrievable.

During the research period ABC Online portrayed a more heterogenous, participative and shifting national identity than corresponding broadcast sources – although much of its user knowledge remained part of a mass of unindexed cultural resources that resisted easy reading.
and interpretation. Its sites were more abundant in free information resources, marginally less dependent on commodifying user agency than commercial services and more accessible to diverse end-user capacities than those of its commercial counterparts.

ABC Online was not a public access technology in the sense of providing dialogic space, which is already part of many commercial and non-profit initiatives. Its role lay in providing a unified zone of participation in media flows and common mechanisms for negotiating citizenship. The web service then functioned as a technically inclusive environment for user participation and for the accumulation of a collaborative knowledge base. Even so, there is much for the ABC to consider about its handling of user input to knowledge management processes. At present users have little control over the storage, indexing or re-use of their posts. Databases can disappear without consultation. Users more often contribute to the system architecture design as test subjects, rather than collaborators. This hierarchical trajectory works against any moves by the institution to reinvent itself as more reciprocal and accountable.

Database, zone and forum are critical technocultural concepts in that they engage the interrogator with questions of power and the political economy of the web. They also focus thought on the cultural policy arrangements for promoting creative capacity. In a neo-liberal age public service broadcasting is unable to influence the provision of communications infrastructure, but this thesis has shown they may build interconnectedness, reciprocity and mutuality through the development of open interactive system. This is not a case of according PSB an ethical or other qualitative superiority over the commercial sector. I simply recognise that a public service publisher may have different information management priorities if it has an existing commitment to universal access and the negotiation of difference.

Until now, this thesis can been concerned with governmental relations between the ABC and its constituents, audiences and users. It moves now to consider the ABC’s relationships in a competitive industry framework. Lessig (2001) has influentially argued that to stimulate new media industries the state must restrict oligopolic controls on new media networks and reward competitive innovation. I will explore whether positive state intervention can also be an effective element of an innovation system, by examining the ABC’s developmental influence on Australia’s interactive multimedia market.
Chapter 8

Incubator:
An innovation network

There is a lack of clarity about the R&D functions of cultural institutions.
(QUT CIRAC and Cutler & Company, 2003: 34)

As the opening to this thesis implied, governmentality research must be concerned with diagnosing the conditions of policy innovation, as the failure of programs leads to a constant search for new tactics of government. Previous chapters have discussed the ABC as a cultural technology trying to rearticulate its social objectives in an informational environment. What needs discussion is whether, under a neoliberal rationale, the organisation also undertook economic activities that had a discernible, systemic impact on digital content industries development. This chapter interrogates the ABC’s role as an economic technology, examining how its involvement in interactive multimedia markets might be read in terms of contemporary industry policy.

The 1982 Dix report foresaw that the ABC would have to innovate in order to adapt to liberalised, globalising communications markets, but its development of interactive multimedia services has been contentious because of subsequent demands on internal resources and concerns about commercialisation and loss of organisational integrity (Burns, 2003). Here I consider a third area of contention – whether the ABC has a justifiable role in developing innovative multimedia services in a minimally regulated, globalising environment and how that role might be defined.

In 2003 a digital content production report commissioned for the National Office of Information Economy (NOIE) as part of a large industry clustering survey, argued broadcasters should be a central focus for innovation studies of the digital content industries
because of their need to move rapidly from centralised to decentralised internetworked platforms and customizable content (QUT CIRAC and Cutler & Company, 2003). Yet the ABC’s role as an innovator, as I indicated in Chapter 1, is somewhat ambiguously enshrined in its incorporation Charter. According to Dix the new government enterprise was to be both technically and aesthetically innovative. This declaration was a problem for subsequent federal governments as it provided ABC executives leverage to establish new services and to request (if not receive) budgetary support for ongoing technological change.

Uncertainty about the extent of the ABC’s innovation remit is part of a larger problem for the creative or ‘digital content’ industries. The NOIE report mentioned earlier found that the nature of research and development (R&D) in these industries had not been closely examined. It suggested that “little systematic data” existed about the scope and scale of their innovation activities or funding (QUT CIRAC and Cutler & Company, 2003: 5), and that the R&D functions of cultural agencies were poorly understood. At the same time it described public service broadcasters as underexploited assets and “vital distribution channels” for digital content (p. 34).

In this chapter I demonstrate that the ABC has played a demonstrable role in a media innovation system. I provide more empirical data on ABC New Media’s activities to expand on these findings and to further analyse how the ABC used network relationships to play out the politics of enterprise in the early 2000s. I also revisit aspects of the user’s pivotal role in digital content innovation. This assessment suggests the ABC has played an effective, if poorly documented, role in the expansion of Australia’s immature interactive media markets, which goes beyond distribution to include production incubation and R&D.

The chapter begins by locating the genesis of the innovation systems theory in classical liberal economics. It then debates the need for specific ABC interventions in an innovation system, by analysing the scope of its collaborative interactive multimedia activities and raising the need for better data on their impacts. Finally it suggests that the ABC’s contractual arrangements have overshadowed the economic ramifications of its relationships with creative audiences, which also need further study.
The enterprising PSB

During the period under study there were two broad economic cases for state-funded media in a competitive framework. The central case was that it compensated for market failure, particularly through the production of merit goods and programming that met social objectives (Brown, 1996; Office of Communications, 2004a; Armstrong and Weeds, 2005). The rationale was that public service media produced specialist or culturally uplifting content that the market would not otherwise supply and that would:

a) benefit users in ways they undervalue.
b) produce positive externalities, or social benefits beyond individual interests.
c) serve minority or marginalised groups.
d) ensure competition, and stimulate the dispersal of new program forms.

In this respect PSB had a dual governmentality. It addressed individual ethical audience behaviours and shaped wider media industry strategies that informed those behaviours. The discourse of enterprise was not only designed to promote internal efficiency, productivity and renewal, but also to achieve external improvement: enabling the market to exist and grow in socially or economically desirable directions. Richard Collins (1992) rehearses this case when he argues that PSB is an essential part of a mixed system of broadcasting because it reinforces ‘positive freedoms’ (control to improve the scope of individual choice).

Each of these traditional rationales for intervention is contestable in an informational environment. While the merit goods case for social impact is notoriously hard to establish (Foster, Egan and Simon, 2004: 22), Stuart Cunningham also makes a compelling argument that cultural nationalist arguments for funding based on the “specialness” (non-market exceptionalism, aesthetic excellence and community development potential) of information and creative production, are ineffective in a DIY publishing, post-national policy environment (2002: 5).
A market failure argument invites criticisms of cultural elitism (Brown, 1996) and paternalism (Armstrong and Weeds, 2005) in the determination of content priorities.¹ That case is also weakened in a multichannel, networked environment as programming channels become increasingly specialised and customisable, broadening choice (Withers, 2002; Office of Communications, 2004a). Yet as I have indicated earlier, that case may not fall away completely in small, highly concentrated markets like Australia, where basic services such as regional broadcast news will not necessarily be commercially viable or provided at a community level, and where access to certain types of information is conditional.

A more recent economic argument for enterprise public broadcasting drew on Adam Smith’s ‘virtuous circle’ analogy; the proposition he made in the Wealth of Nations that the pursuit of capital accumulation will “naturally” lead to an improvement in productivity (1986: 372). In its contemporary theory, a virtuous circle occurs when growth in labour productivity enables more profitable research and development, which boosts productivity, generating funds for more research and so on.

From the 1990s researchers began to boldly propose that public broadcasting starts a cycle of innovation by developing new production practices, or styles and genres of programming, which are then adopted and popularised by the commercial sector (Collins & Murroni, 1996; McKinsey & Co, 1999; Ward and Betzel, 2004). Collins and Murroni suggest that the BBC is an “instrument of positive regulation”, which “compels other broadcasters to maintain and improve the character of their own services”, thus benefiting all consumers of broadcast products (1996: 142). In a similar vein a much cited McKinsey & Company industry survey argues that PSBs will remain a competitive media force if they not only deliver distinctive, high quality local content, but also force their private sector counterparts to do the same (1999: 4).²

There are two problems with this proposal. First, there is little research to indicate strong flow-on effects from the public to the commercial sector. In the Australian case there is anecdotal evidence of an ongoing migration of both staff and popular program formats from

¹ Flew and May (1999:17-18) review the similarities between broader right- and left -wing critiques of cultural agency funding: claims of “producer-privilege” or “cultural capture” on one hand, and centralised institutional power on the other.

² Distinctiveness being defined by the percentage of factual, cultural and children’s programs broadcast and measured against the UK conditions McKinsey and Co.1999: 4).
the ABC to commercial networks, but limited empirical findings suggesting the ABC has positively influenced commercial programming. Instead it is more common to see public reinforcement of the antagonistic and reductionist commercial/non-commercial binary – for example, in discussion of the ABC’s ill-fated Telstra deal (Burns, 2003: 242). Recently former ABC board member Mark Armstrong (2005: 7) even replayed the Coasian hypothesis that free-to-air, state-funded broadcasting can ”greatly diminish” a commercial broadcaster’s incentive to supply high-quality, diverse programming, as commercial content must be made more “attractive” (implying a greater emphasis on popular, ‘low’ quality content) to overcome the “disutility” of advertising (p. 7).

Second, recent research from the UK suggests that a large well-funded, vertically integrated public broadcaster like the BBC can have distorting and even anti-competitive effects on a developing market such as web publishing (Armstrong and Weeds, 2005; Office of Communications, 2004: 73). In a neo-liberal policy moment it is difficult to recommend funding PSB as an industry development strategy at the expense of emerging commercial entities, and when policy options such as seed funding or industry clustering support are possible.

It is not clear though that this UK analysis transfers to the Australian scenario of a small, less well-funded broadcaster operating in more concentrated markets. It is also important to distinguish between the virtuous circle case for state intervention, which is partially dismissed above, and a more recent and effective innovation systems argument for PSB enterprise, which is grounded in classic market failure theory but sees broadcasters as part of a knowledge economy.

Innovation systems

Economic historian Charles Edquist’s work is useful to this project in that it indicates how state agencies may legitimately serve as innovation policy instruments within dynamic, market-oriented industries (2001, 2002). Edquist recognised that although most innovation

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3 An exception is the case of Triple J youth radio, which constructed a national youth audience and programming format (Albury, 1999) subsequently exploited by commercial networks such as Nova and Hot FM (Ames, 2002).
occurs within firms, it is generally achieved through interactions between networks of actors, rather than by isolated entrepreneurs (Edquist and Bjorn, 1997). He later argued that most innovations are developed in collaboration between interlinked systems of actors, organisations and institutions (2002), or firms and other types of organisation (including state-funded and NGOs) (2001). On this basis he proposed that state agencies may have a role in national innovation strategies where there is a defined market failure to meet national objectives, where the causes can be identified and the agency has a recognised ability to “solve or mitigate” the problem/s to the benefit of an innovation system (2001: 18).

Edquist’s work was adopted in Australian cultural policy research to discuss the creative industries as significant elements of a digital content innovation system (QUT CIRAC and Cutler & Company, 2003). Stuart Cunningham, who led this research, had already explored a move for content regulation and development policy from a culturally nationalistic to a services industry framework, where society’s media needs are considered in terms of access and equity terms, alongside telecommunications and education. In doing so he recognised that creative industries like broadcasting were a central productive element of an informational (he uses the term ‘knowledge-based’) economy but were not state-funded, like the sciences, to undertake R&D or innovation activities (Cunningham, 2002: 7). Cunningham saw this as a paradox because economists had clearly indicated market liberalisation and productivity gains were secondary to outcomes from innovation policies such as intensive re-skilling, education and internetworking of populations, yet these relied on creative industries outputs. He also noted that creative production had been a model for information economy business practice – outsourced, contractual, skills-based and internetworked.

Therefore enterprising broadcasters like the ABC could be considered part of an innovation system that is reliant on digital content and communications. What needs to be understood is whether and/or how PSB might contribute to innovation in content creation and in adding value to production chains. As indicated earlier (Chapter 3), one specific area of interest is ABC New Media’s external linkages and commissions, which assisted the organisation to innovate internally. So far I have focused on this intrinsic impact, but now I want to appraise how those relationships affected Australia’s new media industry development.

The QUT/Cutler and Co. research is an attempt to map the existing cross-sectoral linkages and interdependencies between cultural institutions like the ABC and private companies in
emerging creative industry environments. It uses Edquist’s definition of an innovation system as being composed of a complex of determining elements: “all important economic, social, political, organisational, and other factors that influence the development, diffusion, and use of innovations” ((2001: 2). However its description of the ABC’s role within such as system is cursory.

It is difficult to dispute the ABC’s stand-alone capacity to innovate in digital content production. It won, for example, the Australian Internet awards best website category five years in succession. The federal Department of Industry, Science and Tourism renewed The Lab’s funding as part of a science education innovation strategy. But any resultant systemic impacts have not been evaluated, and so could be regarded as minor. There is anecdotal evidence that its training role, well documented in broadcast, extended to multimedia industries from their early days as ABC staff gravitated to commercial start-ups such as broadband production house K-Grind and webcaster Big Fat Radio, as well as other organisations such as The Australian National Museum. Here again though systematic data has not been gathered to suggest any significant innovation outcome beyond the organisation.

In this analysis the ABC is a technocultural system, a network of communicative relationships that extend beyond the material boundaries of the institution and may operate as communities of learning. The ABC’s contribution to industry innovation must be evaluated in terms of its ability to work with and alongside, rather than in isolation from or opposition to, commercial players. I argue there is also a need to evaluate the significance of its relationships with creative audiences, an aspect which I will come to later.

Following Edquist’s assumptions about innovation systems, an assessment of the ABC’s place in national innovation strategies for digital content industries needs to do at least two things:

1) Establish any case and causes for market failure, and
2) Consider the ABC’s ability to contribute to collective or collaborative solutions.

Before that can be done I need to establish the definition and parameters of innovation, and to discuss how the ABC’s multimedia innovation role was framed between 1992 and 2002.
Being innovative

In classical economic terms innovation refers to “new creations of economic significance” (Edquist, 2001: 7), that is, those products and processes that create value in response to problems of resource scarcity. Innovations may be unique, but more often build on, synthesise or hybridise existing knowledge and artefacts, as in the adding of value to goods which characterises some production chains. ABC Online was not a new media form, but qualifies as an industrial innovation in that it was one of the world’s first mainstream media web ventures and uniquely integrated web production throughout the institution (Johns, 2001). Similarly the ABC’s CD-ROM productions were culturally rather than technically inventive, for example, in *Real Wild Child’s* comic cultural history of Australian rock music (Murray, 1998).

The discourse of innovation, like that of “perpetual training” (Rose, 1999: 160) is fundamental to neo-liberal thought. During the 1980s business and government used innovation strategies to achieve global competitiveness and economic advantage (Porter & Stern, 2001; Fonseca, 2002). Interest in innovation grew in response to the growth of informational industries and a concomitant re-emergence of interest in Schumpeterian enterpreneurism and evolutionary capitalism (te Velde, 2004; Flew, 2002). In Australian industry policy of the 1990s, first digital content and then information technology were regarded as new economy drivers (O’Regan and Ryan, 2004). However there are disputes about whether innovation is a cause or effect of economic growth, and whether it is fundamentally a technological or social phenomenon.

Certainly the ABC’s multimedia development was largely propelled by the search for new revenue streams and audiences. But it is misleading to link all innovations solely with the pursuit of market value and competitive advantage (Tuomi, 2006). New processes or products may be created with other objectives in mind – such as collaborative learning or aesthetic experimentation. As earlier chapters have indicated ABC Online was initially a disorganisational response to institutional change rather than strategic development, and its growth owed much to external social networks.

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5 See Joseph Schumpeter’s account of creative destruction (1934).
I argue that innovation too can be understood as technocultural, that is, a creative cultural response mediated by localised understandings of technological diffusion and application. Innovation is as much dependent on new social as technical processes (Kanter, 1984), and commonly results from integrating new technologies into a workplace (Cobbenhagen, 2000; QUT CIRAC and Cutler & Company, 2003). Despite the cultural significance of the lone entrepreneur/inventor narrative, innovation is often the result of collective learning (O’Sullivan, 1998) catalysing in communities of practice, institutionally legitimate or otherwise (Fonseca, 2002). Rather than seeing innovation as an inevitable outcome of strategic intent or technical development, I concur with Jose Fonseca’s proposal that it springs from “ongoing complex responsive processes of human relating in local situations” (2002: 3).

Fonseca’s perspective, borne of complexity theory and Bahktinian dialogics, tallies with my earlier reading of ABC Online’s genesis from a disorganisational alliance between technically-adept program-makers. It also reflects the new production relationships formed as a result of the *Australian on CD* project (see Chapter 3) in which emerging digital content producers sought out the ABC as a co-production partner – even though it was not an established multimedia producer, and had not been designated a pivotal institution for multimedia development in Labor’s *Creative Nation* cultural policy.

ABC New Media eventually co-produced three of the ten CD-ROM projects, in partnership with commercial multimedia producers and educational bodies. The partners were interested in both the ABC’s intellectual property assets and its editorial and production support expertise. John Thomas, from later commercial collaborator Dataworks (*Bananas in Pyjamas, Frontier*), saw an important role for the ABC in acting as a “facilitator between different parties who own associated rights in materials”, bringing them together to create new interactive projects (Thomas, interview 1999). Here and in later co-production agreements with state screen agencies, the ABC could be seen primarily as a distribution channel, ensuring market access for small to medium sized enterprises (SMEs). However it also acted to some degree as a business incubator, providing expertise and mentorship to those individuals and groups.

This was not a role imagined for the ABC in multimedia (or later digital content) policy of the time. Its absence from *Creative Nation* spoke to its political marginalisation, at a moment when television, radio and film were being incorporated into arts policy (Flew and May,
1999) and links between culture, services and economic development were being uniquely synthesised (O’Regan and Ryan, 2004). Nor was the organisation initially given a clear role in the industry development policy of the Howard government, where digital content was seen as a “subsidiary” aspect of ICT infrastructure and the information economy (p. 18).

Industry clustering studies done in 2003 for the Department of Communication, Information Technology and Arts (DCITA) have hinted at a broader role for government agencies in multimedia markets. This and other possibilities need evaluation to consider whether the ABC might address specific failures in Australia’s emerging media markets.

Market failures

As the previous chapter noted a few large players dominated Australia’s new media industries in the years to 2002, alongside a larger, fragmented foundation of small enterprises with sustainability problems (QUT CIRAC and Cutler & Company, 2003). A joint report by DCITA with the National Office of Information Economy (NOIE) concluded that in the creative industries as a whole “industry fragmentation limits the scope for collaboration to promote investment in shared capabilities and infrastructures” (DCITA and NOIE, 2003: 6). There were “poorly developed business models in many markets for digital content and applications, limiting incentives for both production and digital infrastructure investment” (p. 6). The report also noted that access to some kinds of production, business and project management skills was limited, particularly digital rights management expertise.

Economic conditions varied in specific production sectors but were marked by uncertainty and change, increasing the risk of investment and problems with raising finance (particularly for small players). For example television producers were waiting on the development of new services, notably datacasting and multichannelling, but there was little confidence that in the short term these services or high definition (HD) television would deliver “significant new opportunities” due a lack of production funding (Jacka, 2001: 56).

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6 Industry trends during the study period included increasing international competition and convergent investment (between broadcast, telecommunications and interactive media (Given, 2003), more commercial partnering with global corporations (Martin, 2004) and a growing trade deficit in the audio-visual sector (Jacka, 2001).
SMEs of the kind that the ABC was likely to deal with in multimedia co-productions faced further hurdles to growth, innovation and market access:

1. Barriers to collaboration due to competition in a small market, with little sharing of infrastructural resources.
2. Lack of information flows to small to medium enterprises about market trends and developments, limiting strategic decision making
3. High transaction costs associated with IP and rights management, technology inputs, finding capital and developing skills.

(adapted QUT CIRAC and Cutler & Company 2003: 27–29)

There are strong arguments against funding a state broadcaster to undertake certain industry development activities outside its core content production and delivery obligations. Such activities might be a diversion from its ‘core’ pursuits, give it undue market influence (perhaps to the point of stifling competition) and the fundamental problems may be better tackled using other funding or regulatory instruments.

Yet there would appear to be a persuasive argument for supporting the ABC to distribute new media content, partly underscored by the failure of Creative Nation to ensure multimedia market access to new content producers. A central element of Creative Nation’s multimedia program was Australian Multimedia Enterprises (AME), a funding corporation that provided one-off seed funding to commercial ventures only. These were then obligated to return double the advance when the project attracted a publisher or new investors. This enterprise model underestimated the barriers to market access – that business models were not established, that micro-enterprises typical of internet start-ups had little commercial expertise and were operating in experimental fields.7 The development capital approach of AME relied on creatives to negotiate distribution. Yet Leadbeater’s (2001) new economy thesis notes that while innovation stems primarily from small, independent enterprises (the entrepreneurial theory), these need the support of large cultural institutions to obtain market access (distribution and retailing) (see Flew, 2002).

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7 In three years AME invested $15.8 million in thirty-eight projects, but its dual development and investment role led to a conflict of purpose (Morrison, 1997). This was later resolved when the company was sold by the Howard government in 1998 to venture capitalists Allen and Buckeridge, and became a government licensed Innovation Investment Fund, financing new technology companies seeking to commercialise their research and development.
It is less clear whether the ABC should have a role in industry knowledge exchange, creative or business mentoring and project management. A 1999 ABC submission to the federal government’s convergence review asserted a knowledge exchange impact on industry through co-productions and commissions with independent producers:

Through these activities the ABC provides the content and broadcasting industries with resources and talent, and fosters a collaborative environment which contributes significantly to Australia's vigorous creative cultures (ABC, 1999c: 1).

Such a role is only sketchily documented in annual reports and government submissions (cf ABC, 2002b; ABC, 2003). While this thesis has already provided several supporting examples of collaborative innovation, it now turns to the ABC’s record of mediating interactive multimedia industry failures such as fragmentation and information asymmetries. To do so, I consider how the ABC’s new media co-productions might correspond to or diverge from an accepted (if not always successful) commercial model for fostering business start-ups – the incubator.

Incubator

During the 1980s business incubators became a conceptual focus for industry development strategy. Incubators were entities that offered infrastructure support for SME entrepreneurship: shared office space, administrative technologies, access to business mentorship, skills training and professional services including venture capital advice. They have a well-documented and controversial history of assisting SME knowledge and skills acquisition in new technology fields (Colombo and Delmastro, 2002; Studdard, 2006) although until recently there has been little research on how cultural aspects of the incubator experience – systemic interrelations (Bhabra- Remedios and Cornelius, 2003) and socio-spatial operations (Bøllingtoft and Ulhøi, 2005) – impact on innovation outcomes.

In Chapters 2 and 3 accounts of the Australia on CD coalitions exemplify how the ABC’s multimedia collaborations could be a hybrid of organisation and disorganisation, the latter informing the former’s innovation and vice versa. These early consortia were disorganisational in Lash’s terms (2002: 43) in that they were temporary associations not fully governed by an “end- or value-rationality”. They did not seek first and foremost to establish
an ongoing enterprise, but to design and create for an identified audience. They were not simply the means to innovate, but innovation in themselves, as institutions, businesses and individuals negotiated ways to establish and achieve common creative objectives.8

Yet these groups were not opposed to organisation, as Lash’s theorising would suggest, nor a sign of the decline of institutions. Instead they operated in symbiosis with the ABC and were sources of renewal and challenge. The CD-ROMs re-interpreted to multimedia users a set of institutional values embodied in the *Creative Nation* project guidelines: cultural endeavour, artistic performance and heritage achievements (Commonwealth of Australia, 1994). As Chapters 3 and 4 indicated the collaborations extended ABC expertise in emerging digital content production processes and procedures.

The federal Department of Industry, Tourism and Resources, which has funded large scale incubator projects (for example, technology parks), described them largely as knowledge exchange operations:

…designed to assist new and growing businesses to become established and profitable by providing premises, advice, services and support. The incubation period is normally from one to three years, during which time fledging businesses can become established before graduating into the wider business community (DEWRSB, 2001, p.128).

The ABC does not provide premises to its independent producers or production houses (although they may use its production studios as arranged). However case studies done for DCITA’s industry clustering survey indicate that a significant level of knowledge exchange is common in relationships between multimedia suppliers and government agencies like the ABC and Australian Film Commission, and was profitable for the independents (Convergent Consulting, 2003). “Each of the suppliers interviewed, expressed that they had picked up considerable knowledge, skills, brand association kudos, and IPR [intellectual property rights] as a result of their relationship with the Agency” (2003: 5). The ABC was also “well positioned to identify, trial, promote and ‘pass on to industry’ new product and service ideas that may well have significant commercial potential for their suppliers” (p. 8). Thus it is

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8 Burns (2003: 281-2) further documents how ABC New Media collaborations involved initial exploratory discussions that would not always resolve in further production.
possible that the ABC was positioned to support independent entrants to new media markets to overcome some barriers to innovation and growth. The evidence however is largely anecdotal.

A networked innovation system model places strong emphasis on the co-development of products, shared information and design systems (Convergent Consulting 2003: 14) but the DCITA reports did not document the scope of independents’ contributions to institutional knowledge or innovation. The relevant ABC reports examined for this project list few specific instances of reciprocal innovation effecting change in the ABC. While one mentions the possibility of user comment influencing programming decisions (ABC, 1999b) they tend to focus on the broad achievements of project collaboration (ABC, 1999c, 1999d) and performance indicators such as awards won (ABC, 2000a: Annex J) or revenues and audiences generated (ABC, 1999b; ABC 2000a).

More specific data on the mutual impacts of creative relationships and any multiplier effects could be regularly drawn from institutional sources, documented and made public to allow fuller studies of the ABC’s innovation role. To develop this proposal I will draw briefly on three outsourcing perspectives: the externally commissioned and funded co-production, the contract developer and the internally commissioned and funded co-production.

Rob Wellington, principal of Tantamount Productions, worked with the ABC on one of its first Cinemedia funded Accord projects. The Accord was a two-year agreement with the Victorian state film agency to promote innovative multimedia industry development and “collaboration between the ABC and the independent sector in Victoria” (ABC, 2000a: 27). Both institutional partners agreed to contribute $1.6 million, with the ABC’s investment made up of 30 per cent cash and 70 per cent in-kind, with production facilities valued at market rates.

Tantamount’s Edna Walling website <http://www.abc.net.au/walling/> uniquely incorporated images and manuscripts from the Victorian State Library's collections, using photographic, curatorial and cataloguing support. Wellington, in consultation with the library team, designed a search engine-friendly web interface to the library asset databases. His concept of a non-linear, multi-layered information source challenged the narrative assumptions of his ABC TV executive producer and generated a dialogue about the nature of online documentary
Wellington argues that it was unlikely that his project would have been funded commercially due to its experimental nature. His greatest concern was that the ABC “seemed to want to control everything but writing the cheques”, and that while this did not affect his editorial vision, it did slow down the production process.

Between 1995 and 2002 the ABC New Media division grew from four employees to over 100 (Vaile interview, 2004). As multimedia expertise within the organisation grew it out-sourced less of its production, but arguably its contractors delivered greater innovation gains as they were working at the front of technological change.9 Animator Frank Gapinski, who operates from a home-based studio on Queensland’s Sunshine Coast, is typical of those micro-entrepreneurs contracted before 2002 to develop multimedia products outside the scope of ABC expertise.

When Gapinski first suggested to an ABC New Media executive that he design a series of Flash animation profiles for ABC Online, he said he was told that the application “would never take off” (Gapinski pers. comm, 2007). He persisted, and has since produced over forty-three animations for ABC Online, which now uses Flash extensively throughout the site. His ABC work is not his main income stream, but has been an opportunity to innovate not always possible within the confines of his commercial commissions. Gapinski indicated that ABC staff had given him a large degree of creative autonomy and that the scope of the commissions was far more experimental and challenging than that expected in his commercial television advertising projects. He also cited instances of his animated documentary profiles being used by the subjects to promote their work internationally.

Gapinski was also a contractor to an internally funded project Re-imagining Utopia, <http:www.abc.net.au/rn/utopias> a study of social change in Australia’s rural intentional communities, which this author co-produced. Commissioned in 2002, it was the ABC Regional Production Fund’s (RPF) first major cross-media project, with ABC New Media and Southern Cross University collaborating on the web production.

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Re-imagining Utopia was experimental and educational rather than revenue-generating because many of the communities involved refused to work with commercial media outlets and there was no associated merchandising. Nevertheless it became one of Radio National’s highest rating web features during the year of the first-run radio broadcasts.\textsuperscript{10} It generated casual work for seven independent creatives, and became a multidisciplinary educational resource.\textsuperscript{11}

The production collaboration challenged existing organisational capacities. Production management involved telephone and email networking across four states, two ABC divisions and three radio networks. Through negotiation and discussion of international industry trends the website developed from a simple information site to a problem-solving based educational tool. The core project team functioned dis-organisationally in its flexible work practices and in its creative ethic: that producing an innovative project was prioritised over bureaucratic procedure. In-house costs exceeded the ABC’s budget estimates, the web contract was not completed until 18 months after the project finished and the project’s scope sparked debate about levels of production support for outsourced projects. Overall, though, the project resulted in more extensive documentation requirements for new project briefs, indirectly improving RPF commissioning procedures.

Each of these instances of innovation development indicates that ABC New Media’s co-productions and contract multimedia development complied with some basic incubator characteristics (Hansen et al, 2000; Bøllingtoft and Ulhøi 2005): a focus on the spirit of entrepreneurship and offering access to established markets and information networks. These cases also illustrate the ABC’s potential to benefit from disorganisational expertise, to be altered by it and subsequently modify its external content production relationships.

\textsuperscript{10} Personal communication from Utopia website Executive Producer, Peter Jackson.

\textsuperscript{11} The site drew on research from law, writing, sociology, visual arts, cultural studies and media studies scholars, and personal communications indicate it has been used in teaching geography, online learning and sociology.
Yet while the ABC acted as an incubator in production development (in-kind technical and editorial support, industry networking and publishing), it did not always in other respects such as providing legal or business advice, especially where this conflicted with its own enterprise goals. Also, while editorial control finally resided with executive producers in Television and Radio divisions, they were not guaranteed to offer collaborators consistent levels of support or guidance (Wellington interview, 2006).

Divisions did not always collaborate effectively themselves. DCITA research was critical for example of the outcomes of the $2.1 million Australian Film Commission and ABC Broadband Initiative to develop and produce interactive multimedia projects for high-speed delivery (ABC, 2002). The research noted that the Australian Film Commission/ABC New Media productions were poorly integrated with broadcast programming, and “under these circumstances, their cultural impact and potential for serious commercial development are relatively slim” (Convergent Consulting, 2003: 17).

These issues would suggest the need for a more global organisational approach to any incubation strategies, one that could be delivered in concert with funding from aligned cultural agencies. But for the value of a multimedia incubation program to be fully considered, the economic impact of these ventures would have to be better measured. The AFC documents audience development and project income funding, but this is not the case for Regional Production Fund projects, Australia Council funded multimedia projects or independent commissions. There is no formal follow-up process post-project to assess multiplier effects on collaborating partners. Documenting the multiplier effects of all the ABC’s interactive multimedia content relationships would require significant procedural follow-up, but comparative longitudinal data on production outcomes, which highlighted cross-sectoral linkages and interdependencies, would more clearly demonstrate any innovation system impacts.

Perhaps due in part to the absence of such data, there was a political tendency to undervalue the ABC’s multimedia research and development activities from the Mansfield Inquiry onwards. In 1999 Communications Minister Senator Richard Alston declared the ABC was not leading the way in digital television and radio like the BBC and Liberal board member Michael Kroger referred to staff as “the dinosaur collective” (Martin and Seccombe, 1999). There was also a broader federal reluctance to acknowledge the scope and costs of the
necessary transformations from broadcast to digital publishing, seen in debates about conversion costs of digital broadcasting (see Inglis, 2006: 435 and 468).

As the 1990s progressed the ABC’s stand-alone R & D capacity shrank with budget restrictions (Lieng interview, 1999). At the same time ABC New Media’s systemic impact on Australia’s interactive media industries arguably increased. To illustrate the proposal that the ABC has a systemic effect on industry development, we must consider the course of the institution’s broader multimedia program – including datacasting and iTV ventures.

**Network effects**

From the late 1990s the ABC pursued commercial relationships that would ensure distribution of its digital content through new platforms and commercial networks, from ISP accounts and contract coding through to subscription and interactive television transmission agreements. The state no longer controlled ABC broadcast transmission facilities, which had been sold first in 1999 to National Transcommunications Limited (NTL), a UK/US owned commercial television carrier, and then when its share price collapsed to Macquarie Bank in 2002.12 Brian Johns argued that in an era of convergence the national broadcaster could no longer afford to be “an island” (Johns interview, 2000). He noted that in the past the ABC had failed to secure substantial film and publishing distribution networks and claimed that it could not afford to do the same in the digital environment.

This executive focus, and the need to generate external revenues, drove ABC New Media to explore a range of non-exclusive content licensing deals. These generally involved distribution of news feeds to external websites (both public and subscriber-based), pay TV and digital services, and included the negotiation of an SMS news service for Telstra GSM subscribers (ABC, 2000a, 2000f).13 Bob Johnston, from ABC News Online, said that licensing trials were not initially driven by the need to make money, but by an interest in redistributing ABC content:

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12 At the same time Telstra, the national telecommunications carrier, was being incrementally privatised.

13 It also outsourced management of the ABC shop site to Village RoadShow (ABC, 1999b).
They weren't entered into from a revenue point of view, because we discussed these issues at some length and fundamentally we felt that no one was quite sure where the online medium was going to go...and we took the view that there were two ways to go. We could continue to corral our content within the ABC site, acknowledging that on the global scale we are a relatively small player, or we could take a view that says, look if we've got this very high credibility and standing within the community, let's put this content out there on as wide a platform as possible, subject to strict editorial controls...and if you are making your ABC content accessible to a lot more people, Australians as well as internationally, and you're therefore making the ABC more relevant and accessible to people, what's the smartest strategy? And we came down after considering a lot of issues that strategically it was very important to position ourselves so that the ABC wasn’t marginalised by those online providers who would be able to throw vastly larger amounts of money at the issue than we would ever be able to do. (Johnston interview, 2002)

Licensing agreements returned only $500,000 in 2000, but were projected to earn $1.5 million in 2000–1 and $2.5 million in 2001–2 (Parliament of the Commonwealth of Australia, 2000), making the ABC a major supplier of domestic online news. The deals also required both internal research and development (legal and technical) and sometimes ad hoc collaborative development with industry partners – particularly to address technical convergence and digital rights management.

A case in point was Red Rock Communications. In early 2000 an Australian journalist revealed that Optusnet had breached its online news licensing agreement with the ABC by dropping stories from the standard feed (Elliott, 2000). Red Rock, the third-party supplier of ABC online news to the Optus site, blamed its technical platform for Optus’ failure to take the entire feed. It stated that stories were lost to ‘system overflow’ during the overnight period when the Optus site did not require content updates. In evidence to a Senate inquiry Harry Bardwell, the ABC’s General Manager of Media Business, admitted that these breaches had occurred several times over a period of months. However he confirmed the services had agreed on a technological resolution:
As a result of this being drawn to our attention, we have asked Red Rock, and they have agreed, to cease taking stories during the period when they do not require them and, during the period when we are supplying stories, Optus has increased the number of stories that it is publishing on its server so that it takes all of our stories. (Parliament of the Commonwealth of Australia, 2000: 9)

It is also likely that ABC contributed significantly to Australian industry conceptions of interactive television at a time when digital television policy was thoroughly ambiguous about the practical shape of new legally-defined alternatives to such as datacasting and enhanced programming (see Given, 2003: 169–175). These services were imagined as industry entry points for new players. However during what Given describes as “the nightmare of digital TV” policy development (p.183), involving reviews, consultations, legal amendments, spectrum auctions and at least one auction cancellation, the commercial sector was understandably reticent to invest heavily in untried and legislatively constrained audio-visual services.

The ABC, however, continued to explore infrastructure, code and content development of interactive television despite having no additional funding for the task, with a view to replicating its web publishing success. Its ABC Interactive interface, developed in 1999 as an in-house prototype for delivering broadband news, became a figure in public debates about the new television environment. For example, it was used at the 1999 DCITA Communications Research Forum as a backdrop to a panel discussion where Fairfax and Telstra put cases for entry into new interactive television markets. Earlier that year DCITA had commissioned Chris Winter and Malcolm Long, both former ABC radio broadcasters with a new media consultancy, to undertake a scoping study of datacasting options (Communications Strategies and Management, 1999). Datacasting trials were proposed with Ozemail and the Farmwide satellite service (ABC 1999b).

In June 2000 after much parliamentary debate the ABC successfully secured a legal amendment to the Broadcasting Services Act to allow it to multichannel although in a genre-restricted form that protected future commercial interests (Given, 2003: 179). Part of its case had been that it could test the market and pilot new content that it claimed would “stimulate the broadcasting industry as a whole” (ABC, 2000h: 1). In mid 2001 ABC New Media introduced the first of its broadband ‘channels’ and later embarked on Australia’s first
commercial trials of interactive television with Optus TV and regional subscription television provider Austar (ABC Corporate, 2002a: 62).

Austar, which pioneered ITV in Australia, partnering with Open TV to deliver a “two-way” interactive satellite service in October 2001, became a long-term New Media collaborator. After working with Austar on a trial supply of regional and rural news to its subscribers, in July 2001 the ABC negotiated the screening of the BBC’s *Walking With Beasts* interactive documentary on Austar’s ABC Channel. New Media partnered with Austar again in December 2002 to broadcast a co-production with ABC-TV, the rock history *Long Way to The Top – Live in Concert* <http://abc.net.au/longway>. New Media head Lynley Marshall claimed this as Australia’s first interactive television documentary and a cross-media production prototype using narrowband and broadband web services, radio, digital and analogue television (Marshall, 2005).14

The economic impact of such relationships on the licensing partners remains to be documented. The fluidity of such relationships, many only lasting a matter of months, reflected the immature state of the new media industries and the rapid evolution of technologies. Their importance would not necessarily be recognised in more traditional mature industry R&D policy models that evaluate ongoing economic relationships (QUT CIRAC and Cutler & Company, 2003: 62). Indeed it may be that mature markets are not useful indicators of the need for state intervention in immature markets such as interactive multimedia, where forms, genres, interfaces, infrastructure and demand are unstable.

As with web publishing, interactive multimedia services acted as a diagram for realigning the governmentality of public broadcasting with the neo-liberal rationale. The ABC’s many small commercial relationships, like targeted funding, refocussed the operations of an ‘independent’ broadcaster to an extent that would have been less palatable via large-scale, explicitly commercial deals. This is evident in managerial statements on innovation and collaboration.

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14 It was followed by further experiments including *Love is in the Air*, 2003, an iTV series on Australian pop music culture and *Fat Cow Motel*, 2003, a multiplatform television drama series incorporating web, email SMS, radio, analogue and iTV content.
While media releases celebrated the Austar collaboration (ABC Corporate 2002a; ABC Corporate 2002b) public speeches by senior ABC executives during this period emphasised internally generated innovation rather than partnerships, and independence rather than collaboration (cf. Johns, 2001; McDonald, 2002, 2002a). In an address to an International Broadcasting Conference chair Donald McDonald deems the BBC’s Freeview partnership with Crown Castle and Rupert Murdoch’s BSkyB “a particularly interesting experiment”:

Who would have thought ten years ago that such an alliance would be possible?
The most powerful critic and competitor to public broadcasting and the BBC, now in business with the BBC – and to whose ultimate advantage? (McDonald, 2002)

He does not, in comparison, mention the scope of the Austar arrangements, or other of the ABC New Media’s public-private alliances. This silence speaks to the earlier furore over a proposal for a $67.5 million content partnership between ABC Online and Telstra. This was to include a joint research and development initiative, joint monthly meetings and a Telstra unit of twenty to thirty staff sited at the ABC (Garrett interview, 2000). For Telstra the pay-off was access to the ABC brand, its ‘quality’ content and ABC audiences. On the ABC’s side the deal was an attempt to shore up revenues by having a reliable content licensing arrangement, and to gain access to both new distribution channels and technical knowledge.

Public and parliamentary debate interpreted the deal, brokered by Brian Johns’s executive and later abandoned by Jonathon Shier, as a compromise to organisational independence. A central concern was that Telstra would have an unprecedented degree of control over content production, undermining the ABC’s editorial integrity (Burns, 2003). Kirsten Garrett, the ABC Board staff representative at the time, argued “this is the first time that any external commercial entity has been allowed this kind of access and influence at the source of content-making” (Garrett interview, 2000).

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15 In contrast by mid 2003, its submission to a federal film, animation and games industries inquiry states that the ABC “encourages collaboration across the industry [sic] to develop the future of platforms and content delivery” (2003: 9). The paper mentions the notion of collaboration nine times, citing for example, trials of 3G mobile phone transmission with mNet Corporation and joint research with the Nine Network and Nickelodeon through Murdoch University’s Institute of Interactive Television Research (ITRI).

It is also significant that the deal did not address existing multimedia market failures. This undermined the partnership’s economic rationale as well as challenging its ethical foundation. Industry raised concerns about favouritism in the subsequent Senate inquiry reviewing this and ABC Online’s other commercial relationships. Inside the ABC, it was later recognised that the deal “had a cap on revenues, but no cap on costs” (Vaile interview, 2004). ABC attempts to limit its content provision terms saw negotiations finally called off (ABC Corporate, 2000b).

The Telstra moment, in its contractual complexity and symbolic force, overshadowed the ABC’s ad hoc development of more dispersed, less regulated methods for systemic innovation across disciplinary fields – cross-media production and dialogic interaction. Cross-media production training, which began in February 2002 as a legacy of the National Interest Initiative, involved eighteen regional radio staff being trained in digital video production, photography and web production and then implementing their knowledge in local content production. Their visual output was meant to enhance both local websites and the ABC’s new digital television youth channel ‘Fly’. Anne Dunn (2005) notes that despite major difficulties learning and managing their new roles, the first batch of recruits added 1200 pages to the Backyard website in the months between their first and second training courses. While Fairfax Digital was producing journalists with video and web production capacities, and ninemsn staff combined print and video capacities, the ABC was the first Australian media organisation to train staff across three delivery platforms and to focus that innovation process on regional output.

If we understand shared knowledge as critical to the functioning of innovations systems (Edquist, 1997; Nordfors, 2004) and acknowledge that dialogic interaction might also facilitate translation of expertise across geographic and cultural boundaries then it should also be possible to argue for ABC Online’s forums as an element of the ABC’s economic, as well as social, contribution. As presented in previous chapters forums were innovative in classic Schumpeterian terms. They generated new products (unique Australian content, custom-made forum software), introduced new qualities of audience feedback (asynchronous messaging, user-to-user interaction), and required new methods of information production (forums, diaries, guestbooks) including the development of new organisational expertise (in moderation).
Forums were instructive, translation strategies and demonstrated an innovation payout, an intellectual labour benefit, from users. During the study period performative users were already central to the value chain in digital content industries such as gaming (Banks, 2003a, 2003b; Humphries et al., 2005), but they were not considered in innovation policy. Users figured as markets or consumers, and research into these aspects was regarded as “non-core” (QUT CIRAC and Cutler & Company, 2003: 41). Chapter 6 demonstrates ABC Online’s pedagogical relationship with users enabled some to act as innovation system elements. However again, during the period of study, there was little systematic capture of information about user interchanges or impacts.

The (un)imagined user

Basic auditing of ABC forum traffic only began in 2001, as a means of determining which online spaces were most important to maintain and better manage resources. Deeper knowledge about user attributes and behaviours was largely anecdotal, the domain of web coordinators and moderators. Some sites, such as the Indigenous Messagestick, had shifted from using forums to guestbooks (as the former did not attract many posts) though there was an incomplete understanding of the factors that worked against forum participation (Campbell interview, 2001). In these respects the ABC Online user presented here again parallels Woolgar’s (1991) putative user of early microcomputers – the designer creation.17

For this reason the ABC’s moves to control and constrain user behaviour invite re-examination. For example, in 2002 ABC editorial policies and practices had already foreclosed on the possibility of exchanges between users outside the confines of ABC moderation. Policy advised program-makers to protect the privacy of users (ABC 2002). In practice moderators were advised to remove email addresses from inside postings, even where the user had invited contact from others. These measures prevented self-regulated email exchange between users and did not give users the option of disclosing their contact details in order to facilitate internetworking. Thus the potential for innovative exchange beyond the disciplinary control of the ABC was reduced.

17 In this the ABC parallels the BBC’s experience with measurement and demand-driven program creation (Bracken and Balfour, 2004).
Innovative design in an informational age is necessarily networked, collaborative, laboratory-like, as Lash (2002: 22) would have it, with the sites of new media design and production doubling as those of everyday relations (forums, games, blogs). Lash presents this insight in a commercial framework, where disorganisational, outsourced labour fuels informational capital. But the same understanding should be fundamental to the new conception of public service, with the ideal objectified, imagined public replaced by the subjective, connected and involved user group. Such a transition would require a fundamental shift from the ethics of pastoral care characteristic of pedagogical institutions of the 18th–20th centuries to that of encouraging activity, experimentation and self-governance.

That recognition began to surface in cultural policy on digital public service media towards 2002. For example Lawrence Lessig’s proposition that the web acts as an innovation commons (2000, 2001) was influential in calls for public service media to develop public access digital content repositories, such as the BBC’s Creative Archive project, and hence calls for Australian cultural agencies to follow suit by the end of the study period (DCITA and NOIE, 2003). The DCITA/NOIE industry cluster report for example recommends investment in “shared capabilities and infrastructures”, including content repositories, with access to valuable intellectual property such as images and sound, and mechanisms to negotiate standards-driven, open technologies, rather than proprietary systems.

But questions of institutional purpose still preceded those of user interest in such repositories. Former head of ABC National Networks Andy Lloyd James suggested the ABC could become “truly public” and less paternalistic by providing local communities with a share of digital bandwidth, first online and then in digital TV and radio bands, and an editorial framework to use it “thoughtfully”:

   This transmission space would be for the community to deploy to share its own interests and priorities: initially with itself but subsequently with others. The purpose here is to encourage communities to use public space to provide material which the Public Broadcasters simply cannot provide, having neither the staff nor the funds to do so. (Lloyd James, 2001: online)

Yet Lloyd James’s blueprint for a “completely new way of using the media which hands over authorship and control of content to communities” neglected to discuss this project’s
relationship to Australia’s existing 357 community radio groups and seven TV services. In many ways such visions of shared communication capacity are aligned with historical utopian ideals such as Berthold Brecht’s wish for radio to be a democratic, interactive tool (Schultz, 2000).

Equally, the reciprocal ideal is tied to a naive concept of freely productive users, which underplays the political economics of production. In many cases internet service providers penalise digital producers who exceed their upload thresholds by increasing transfer charges, or ‘throttling’ data flows (slowing down the transfer rate) after a threshold has been exceeded (see Young 2002). Young argues that Australian users pay more to produce than to consume. Thus a commercial drive to maximise revenues from limited bandwidth may conflict with public attempts to democratise and expand innovation networks, through say the creation of open access content repositories.

The BBC’s Creative Archive project has, since the study period ended, inspired research into a similar project at the ABC although at the time of writing no public structure had been developed to deliver such a resource (Stannus interview, 2006). In that light it is instructive to briefly mention the BBC’s venture, which was borne of a pledge to turn PSB “into a true creative dialogue in which the public are not passive audiences but active, inspired participants” (BBC, 2004). The archive made some BBC content freely available to British citizens and even corporate competitors, although under strictly non-commercial terms. It is unclear though how a loosening of copyright conditions affected the underlying rights of those involved in BBC productions, let alone how the process fostered a ‘dialogue’ between organisation and individual or disorganisation without any accompanying investment in collaborative process. It was also telling that <http://creativearchive.bbc.co.uk/>, the Archive’s web presence, provided only registrational rather than dialogic options for user interaction and discussion of the project objectives.

How an ethics of reciprocity should be played out in the media communications arena is a key challenge for the architects of media policy, as much as they attempt user reformation through the management of cultural (and economic) resources. Reciprocity must be a priority for For

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18 In 2006 around 190 community radio stations held permanent licences and 150 were ‘aspirants’, broadcasting on temporary licences and waiting for spectrum or licence allocations.

19 On that broader goal of cultural reformation see Bennett, 1998.
a public broadcaster’s innovation activities, as it is arguably through deliberative dialogue, collaboration and the development of shared resources that new ideas are evaluated, refined and institutionalised.

Conclusion

Over the decade to 2002 innovation was becoming a new telos for the ABC. There was virtue in public broadcasting’s ability to *reinvent* and *reform* itself, words I borrow from ABC Chairman Donald McDonald’s cautious speech to the 2002 Public Broadcasting International Conference:

…the ABC now has the largest audience share in its history, despite the arrival two years ago of that great experiment and cause of our own Age of Anxiety: digital television.

You will remember if not the detail, at least the despair in some of the predictions about digital. A gale-force technological revolution was upon us, and quite rapidly, quite possibly, just as pay television was set to do before it, it would make outsiders of the public broadcasters within our own cultures.

While this may yet occur, we seem still a long way from that promised oblivion at the moment. Not *Apocalypse Now*, though quite possibly *Apocalypse Later*. (McDonald, 2002)

In its mission to innovate, a digital ABC did possess advantages over Australia’s commercial broadcasters: the convergent, networked potential of its radio, television, online and ancillary publishing services and the pedagogical ethic that underpinned its search for creative relationships. But the ABC’s ability to adapt also relied on its connections to an innovation system that included diverse commercial partners and users. Through this it developed research and development tactics that did not rely on additional grants, but on its capacity for information networking, content licensing and collaborative program or interface development.
In many professional multimedia content relationships ABC New Media supported (to varying degrees) external development of experimental content and interface design, adding to the industry value chain. Much of the knowledge growth from this networking, which could be interpreted as a systems innovation input, remains undocumented due to the difficulty of tracking data on exploratory alliances. The ABC’s willing negotiation of one-off, prototypic projects also puts it at a disadvantage in proving the longer-term systemic impacts born of developing commercial multimedia formats, products and partnerships. Thus its economic role is still more easily described in terms of externalities and social objectives – as in its defence of access conditions – rather than industry development.

The second section of this thesis has also indicated that ABC’s richest ongoing source of innovation could be its users, who may also be its creative collaborators. However despite a seven-year public allegiance to the powerful discourses of enterprise, choice and interactivity, the ABC’s modes and ethics of interaction did not always develop users’ self-governing, collaborative capacities. This remains its greatest task in moving beyond its disciplinary legacy into a new era of governing informational relations, and will be the focus for my concluding remarks.
Chapter 9

It’s Your ABC?

“It’s Your ABC” became the ABC’s advertising slogan from late 2002. That message of individual ownership so lodged itself in the public consciousness that, years after it had been abandoned, web users were still quoting it. One AAP reporter opened his coverage of the ABC’s 75th birthday celebrations in 2007 with that address (Anon, 2007). This thesis has demonstrated that in the period 1992-2002 interactive multimedia publishing, a new mode of media governmentality, gave new depth to the claim. The ABC had adapted to a neo-liberal rationality by adopting techniques which reinforced, internally and externally, the discourses of self-entrepreneurship and choice central to informational capitalism’s macro-focus on entrepreneurship, innovation and competition. Online communications in particular offered the mobile users of the informational economy on-demand, global access to its information flows and increased dialogic opportunities. ABC Online opened the corporate body to new socialities, an amplified plurality of ideas, an everyday participation in, and dissection of, its flows.

This pedagogical shift was not everyone’s primary goal. ABC executives doggedly pursued interactive multimedia as a competitive strategy, as they also pursued pay TV, more extensive information infrastructures and better user measurement. In adapting to informational economics, the ABC first developed its networked flows – infrastructure, automation, the means of decentred, intensive knowledge production and the opportunity for user performance and dialogue. Executives then moved quickly to colonise webspace and the ABC brand through licensing. The Internet was the most flexible vehicle for this transformation and the web the most popular domain of exchange.

As this thesis was finalised, Mark Scott, a new managing director, debated how the ABC might develop “the potential for new revenue streams afforded by digital technology, including video-on-demand” (ABC Corporate, 2007). Scott not only prioritised on-demand content services but also disbanded ABC New Media (and Digital Services), moving
interactive multimedia publishing resources back into the traditional divisions and appointing a senior television producer to head ABC Online. In his announcement about the changes, ABC Online is mentioned only as a subset of digital media.

Scott’s plans for the evolution of the ABC could mean two possible trajectories: that hybrid web/broadcast relations may lead to further de-stabilisation and alteration of the broadcast paradigm or that the distinctive, dis- and re-organising potentials of web communications will be overridden by a less transformational digital governmentality. The questions raised by this research about the ABC’s role in facilitating and mediating informational culture remain pertinent and must be debated. With that in mind I revisit the problems that the ABC attempted to address through its interactive multimedia program, consider the scope of its emerging roles and challenges, and then pose some questions about how its operation as a governmental technology might be further evaluated and reviewed.

The dilemmas revisited

The thesis began with the proposition that although governmentality is an optimistic pursuit, programs of government are invariably destined to fail. The ABC has been an exception to this proposition, insofar as it has spawned ABC Online, a technique for reshaping its spatiality, its pedagogical approach and its content management practices for the cultural governance of an informational society. Further in the decade examined, this service and ABC Multimedia (later New Media) were a focus for in-house, commissioned and collaborative innovation in interactive multimedia. This occurred on a modest scale, but with demonstrable developmental impacts for the independent and mainstream commercial audio-visual sectors.

Interactive multimedia is a new means for articulating a public service governmentality that may be (inter)connected, (inter)locutory, (inter)mediary and (inter)dependent: operating between, rather than just for the ABC’s broadcast users. Thus the ABC’s interactive multimedia activities were more than an attempt to stave off an inevitable end, as Michael Tracey suggested to me in 1997.¹ They show the ABC adapting to, rather than buckling under, a neo-liberal rationale.

¹ A remark made in conversation with the author at the 1997 Cultural Crossroads Conference in Sydney.
These impacts were not the result of policy or extensions of the organisation's existing broadcast role. The ABC did not plan for ABC Online. It did not have a mandate to publish online, to engage Australians in cultural production or to mediate their exchanges with each other (except insofar as it already represented them on air). This new direction was an unexpected product of neo-liberal policy directions: the ABC’s subscription to digital determinism as a catalyst for enterprise outcomes, even though digitalisation was a contingent and risky field of activity.

The ABC pursued interactive multimedia publishing at a time of reduced state funding for several key reasons:

- As a response to neo-liberalism’s rhetoric of enterprise (the performative corollary of which is choice) in the hope that new technologies would generate new audiences and revenue streams.
- To reform the organisation along the lines of informational capital, with more flexible internal and external production relationships, thereby increasing productivity.
- To engage the mobile, enterprising individuals and disorganisational collectivities of an information society – by creating webspace, adopting a new pedagogical approach and expanding information management regimes.
- As an exemplary ethical endeavour: an experiment in extending the scope of professional expertise, exploring story-telling in a multimedia aesthetic, and reinterpreting the notion of public service to include technical pedagogy.

There were timely economic and political benefits in web publishing. The ABC could represent interaction and participation as greater ‘choice’. It could demonstrate visible public involvement or ‘brand loyalty’ and claim (if not deliver) greater accountability. It could also turn its users to creative production and continuous systemic improvement. Other interactive media adopted by the ABC also incorporated the discourses of enterprise and choice in their design, but internetworked media better articulated that rationality. The web, as a never-finished, possibly collaborative project, symbolises the limitless productive capacity of the digital age in a way that other interactive packages (CD-ROMs, games) capture devices (personal video recorders, iPods) and bounded networks (iTV) cannot.
To some extent ABC Online, and perhaps less so interactive television, can also resolve the organisation’s contradictory rationale through different modes of choice. Web and iTV users can now make up their own ethical selves from a wider selection of materials and in their own time. They can capture, consider and redistribute those materials through their own networked socialities, extending the ABC’s capacity for translation. An interactive ABC can be both popular, in the sense of appealing to more individual user tastes, and educative, in encouraging them to practice self-directed learning. But choice is not necessarily engagement. It does not necessarily lead to dialogue and can exclude exploration of the unfamiliar, difficult or unpopular. Nor does selective interactivity establish the connections between dispersed constituencies that are effected through reciprocity and dialogic interaction.

This thesis has sought to make distinctions between broadcast and interactive multimedia approaches to governmentality in order to study why the ABC developed a technically and legally non-broadcast service at a time of political upheaval and financial constraint. It has shown that ABC Online is a more liberal, flexible form of governing than television, although it also demonstrates new disciplinary approaches to user performativity, including the removal of access privileges without warning. However I argue that in balance ABC’s Online’s provision of dialogic interaction indicates a move towards a more inclusive social constructivist pedagogy. As this thesis suggests the ABC is still more successful in facilitating user self-expression than social interaction, it prompts discussion about the most effective ways of governing the new self-governing, vocal subjects of the informational world.

User/citizens

As one of the ABC’s priorities is its citizenship role, then it follows that the ABC – of all communications media – must engage users to justify its influence as a governmental technology. The user is a DIY citizen, not simply through choice but also in textual performance and dialogic negotiation of identity. As Lash would have it, the logic of networked flows is that the user constantly consumes and produces identity (2002: 215). If the ABC is to remain relevant to the new subjects and collectivities of an internetworked media environment it has to provide means of self-realisation not delivered by software companies, telecommunications providers or commercial media. It does not need to develop personal or social networking tools, but public networking tools.
This study of ABC-user relations suggests problems of media governance cannot be solely addressed by technologically determinist strategies – that is, in extending old technologies to new territories or even, necessarily, in adopting new technologies (although these may offer new means of extending translation). These problems result from individuals' creative interface with technologies and their subscription to social relations forged through and around those technologies. Thus further research is needed on the formation and operation of technocultures surrounding media systems and the ethical relations that inform those alliances. Such work must involve user studies in order to gauge more varied perceptions of governance strategies. It could interrogate The Lab’s online communities more closely to inform, for example, the design of other interactive mechanisms which support dialogic alliances that are mutually informing and adapting.

Studies of user socialities have been common in sociology and cultural studies since the early 1990s, but less so in media studies. My research suggests the ABC’s communities could usefully be examined as part of its educational remit. Some ABC communities, like Self Service Science, where relationships were ongoing and expertise was celebrated, are learning communities. Others, like the defunct Foreign Correspondent forum, are more informational in their transience. They act like a Socratic forum, but may or may not educate in the Vygotskian sense. The point here is that to interact effectively and productively users and ABC producers need, beyond shared discourses or activities, to establish common modes of expressing and valuing others’ mediated communications.

Users are measurably more responsive and creative than broadcast audiences – but it would be a mistake to treat them simply as subsets of those, or to tailor interactive possibilities to the select few who command attention through their dialogic activity. To respond only to the demands of the active chooser or presenter excludes the possibility of reaching non-users and developing new audiences. To what extent is it necessary for the ABC to encourage greater participation in online activities? How far should it go, beyond providing basic access, in pursuit of those who do not want to, will not or cannot come to grips with its new man-machine interfaces? These are not only questions of instructional design or audience development but of power and how it is manifested in interactive systems and across media territories.
An online ABC can marshal the performance of nation beyond its geographic and regulatory boundaries and its demographic categories. This does not mean exclusion from that national imagining is not a concern. It might now occur at the level of presentation as well as re-presentation. Access and performativity may be limited to those who possess not only the technology, but the time, skills and motivation to participate. These factors need to be mapped alongside socio-economic and geographic access indicators to give a more complex picture of what exclusion and inclusion from cultural citizenship might mean.

Exclusion and inclusion

Lash proposes that the operation of power in an informational context is based on the principle of exclusion – from the rights to produce and exploit information and from debates over the determination of what is non-proprietary and proprietary. In this thesis the ABC’s propensity to exclude has been revealed in its imposition of conditions of interaction, in its moderation practices and the sudden alteration or removal of rights to write or post. But disparities in these tactics occurred partly because the ABC’s ethical relationships with users were unexamined and uneven.

Many broadcasters did not want to cede their rights to representation, their exemplary status and control of the communications space. This resistance has been framed here as a concern for editorial control and was contested where user interaction was seen as central to more inclusive, creative pedagogical outcomes. Yet even now, over a decade after the birth of ABC Online, a digital radio manager can suggest the ABC needs to defend its accuracy and impartiality by distancing itself from its users:

…we work within the context of editorial policies that specify standards such as fairness, accuracy and impartiality. But that doesn’t mean that the content that is produced by our audience, or as it is increasingly referred to those people formerly known as the audience, can’t sit alongside content that is produced by professional ABC producers even on ABC platforms. The secret to it I think is to ensure that what is ABC content and what is content that's made by our audiences is very clearly separated and very clearly labelled…In all sectors, in the commercial sector and in the public sector, all media organisations are struggling with this, because as we said earlier we all have brands, our brands
are important to us, we need to protect the integrity of those brands, they are the
basis of our trust relationships with our audiences – beyond that there are also
the legal implications as well and the ABC, no matter who writes the content or
prepares the content, is responsible legally for what it publishes…so we don’t
want to be defaming or libelling people either. But they are [the] challenges in
this new participatory media environment where the audience is pushing its way
increasingly into the space that we’ve occupied pretty well exclusively
ourselves…in the case of ABC Radio for the past 70 or so years. (Walker, 2007)

This view comes from a broadcaster and newcomer to interactive media production. Many
program-makers interviewed for this study were technate, net enthusiasts involved in
development of digital media. Elsewhere ABC broadcasters still struggled to interpret online
sociality, its norms and values. Their allegiance to professionalism, the old media regime of
truth where journalists strive for balance and fairness, defending the quality of their content
and their representational expertise, was liable to exclude the (possibly greater) expertise of
users.²

On the other hand in a DIY, informational publishing world ‘Truth’ is utterly stripped of its
of the future as ‘redactors’, creative editors sifting through user commentaries for the
distillation of ideas or issues. But in this research they appear more as facilitators who design
the conditions for interaction, moderate exchanges, act on user input and resolve disputes or
problems. They function to include and exclude. They monitor accuracy and quality but
cannot claim sole ownership of these concepts, as user expertise takes a more central position
in some arenas. As I have discussed, users can even function as moderators where they
demonstrate exemplary knowledge, dialogic skills or a communal ethic of interchange.

If risk is a condition of the informational moment, then these new ethical relationships
embody the fundamental risk to public service broadcasting. They confront the traditional
notion of PSB authority and the informational exploitation of that authority – the marketing of
the ABC brand. The ABC is sold to the public on the basis of its representational ethics:
delivering trustworthy, quality information; being accountable to the public. Interactive

relations expose the contingency of these claims. Yet this process of negotiating claims to truth, of incorporating user knowledge could be part of the transition to a new mode of governmentality, in which reciprocity is seen as central to the public translation project.

If a future review found that there is a role for the ABC in delivering online services then several areas of ABC Online’s communicative practice would require reconsideration to foreground reciprocal values over commercial considerations. This analysis indicates that practices of hyperlinking need reconsideration, as links generate proximity and reciprocity expanding the conceptual terrain of translation.

There is also a debate to be had over access to content. In its first decade ABC Online supported an economy of free access and redistribution of information. The wisdom of charging for formerly gift economy items such as transcripts is questionable. ABC online producers had rationalised the possibility of micro-charging for content from early in the piece:

...if it gets to the point where Radio National decides to charge for their transcripts over the web...and that they need that money to pay for the service, because it may well come to that...and it’s better to say “here can you pay 50 cents?” than not have it at all, I think that people will understand that of course it will always be a really nominal fee. (Byrnes interview, 1997)

But such a move would immediately be exclusive of those who cannot or would not pay. It would also remove one clear distinction between the commodity focus of commercial media and the public good remit of the ABC. This is also a financial dilemma for the ABC, underfunded as it is to deliver new services, yet needing to explore those options for fulfilling its remit.

Informationalisation throws up other resource problems for the ABC, increasing the amount of information that is produced, for example, and removing time for reflection. Forum questions and emails go unanswered. Posts to be moderated bank up. The philosophical issue confronting Scott Lash as he winds up his critique of information is what to do with excess of information generated by “chronic change and instability, by chronic innovation, in a word chronic production” (2002: 214). This he puts forward as part of “the crisis of reproduction”,
where communication becomes less about reinforcing institutional society and its boundaries than simply experiencing life, risk-taking and becoming (2002: 214-216). In this work it is a ‘crisis of response’, where an organisation designed to reproduce social order must decide whether and how to incorporate this excess in order to contain it, and how it might change to achieve this.

This is perhaps a political task, but some of the ABC’s new informational dilemmas are more specifically ethical, as in negotiating a new rationale for governing – one that moves from authority through disciplined representation to authority through the liberty to question. Forums can be both liberatory and violent. They can fill with disembodied mischief and anger, as users abandon ritualistic face-to-face courtesies and embark on direct critique. Journalistic expertise is not entirely rejected – many forum postings compliment staff on their work – but it must justify its claim to power. Now is the time to consider how an ethics of internetworked communication should be played out and how the subjects of media governance might be considered both productive and exemplary.

It may be that such a project is antithetical to the informational moment. As Foucault realised ethics and self-reform demand reflection rather than reaction:

> Thought is not what inhabits a certain conduct and gives it meaning; rather it is what allows one to step back from this way of acting or reacting, to present it to oneself as an object of thought and to question it as to its meaning, its conditions and its goals. (Foucault, 1997c: 117)

Yet it is probable that the ABC needs to take the time to investigate the value of social exchange for its mission, and to develop more public accountability for its actions in those exchanges. Building the mutual trust between organisation and user that replaces authority demands an agreed framework for communication, a cooperative pedagogy. This may be particularly important in the evolution of user-generated content and user communities.

So with one set of dilemmas addressed, this thesis has generated a new set of questions around the use of interactive multimedia to mobilise users, which this conclusion presents as stepping-stones to further inquiry. Developments in ‘your’ ABC’s relationship with you and others have clear implications for its role as a public media organisation.
A new role?

Like many other proponents of public access interactive services I have seen the survival of PSB in a less paternal and more mediatory engagement with its publics. But the same achievement could be documented for any media organisation that has developed online services which provide dialogic mechanisms, and many organisations who were not media publishers, but have become so through their use of the internet to communicate with others.

This thesis argues that the ABC’s distinct role lies in addressing both the consequences of informationalisation and its paradox: the “irrationality of information overloads, misinformation, disinformation and out-of control information” (Lash, 2002: 2). Under these conditions the problem of communication is not access to information per sé, or to the means of communication but to information in context, to techniques of (and skills in) information control, and to deliberative processes of evaluation (Mulgan, 1991).

So the ABC’s new challenge of governing information is twofold. First it might collate, make navigable, contextualise flows of uniquely Australian information and then present it in a manner that invites reflection, discussion, critique, reworking and negotiated action. Its role would then extend beyond directive representational instruction into developing participation and performance, mediation and collaboration.

This study suggests that simply servicing diversity through a multichannel, narrowcast strategy may not deliver a durable political gain. The media are less able to represent difference, or a rationale for mutual action, than their self-identified subaltern subjects. Identity politics, as Lash notes are “more at home with the language of alterity, deconstruction of the subject, the critique of logocentricism, than they are with the language of democratic interest aggregation and construction of a rational social order” (2002: 94). What is central to the ABC’s future promotion of societal coherence, or what Lash calls solidarity, is the negotiation of shared meaning across social and cultural divides, and recognition of self in the other:

Recognition presumes at least the possibilities of translation, for fragments of a shared horizon. Without this there is no possibility of ethical life, of sociality, especially among individuals from diverse backgrounds… Dialectics – and the
problematique of recognition – in this context would understand the subject as characterised by lack, vulnerability and openness. (Lash, 2002: 115)

It is this fundamental lack of ethical completion which responds to opportunities for learning new ways of being and belonging in global, cosmopolitan societies. The entrepreneurial subject is easily drawn away from normalising institutions like public service broadcasting and towards narrowcast alternatives like subscription television and the internet. One of the internet’s most powerful attractions has been to offer individuals opportunities for self-writing, and interpersonal and group exchanges which extend existing epistolatory and mediated forms of ethical development.

The dialogic proposition outlined in this research is one that draws together what Nancy Fraser describes as divergent tendencies on the Left: on one hand the social concern with equality of access to resources and a newer interest in the recognition of difference (Fraser, 2002: 22). I propose that in an informational society, pulled apart by compounding cultural difference, the ABC of the future should attempt a mediatory role. This must include mechanisms whereby questions of social justice, national values and individual actions can be articulated, discussed and disputed between users as well as experts. To achieve this online forums would have to be more than guestbooks (although these have an important asynchronous use). They would also need to follow reciprocal principles, where journalists and other program-makers seek to explain and listen to users in order to expand the ABC’s narrative repertoires, and help users to engage each other. Consultative moderation would be critical in such encounters, to acknowledge users as equal participants in knowledge production. Clearly the ABC would not abandon all disciplinary tactics, due to its legal and ethical responsibilities, but it could consider more shared, negotiated responses to unruly behaviour.

Due to the apparent cost of dialogic reciprocity and the possibility of its marginalisation in interactive television, this is an area of urgent research focus. We need to understand the value of reciprocity and dialogic interaction from three perspectives: the organisation, the user (and non-user), and their social interaction. Important questions to be explored include how the organisation values performative users, how users value various forms of interactivity, and how the dialogic interface can be managed to facilitate consultative participation.
This work has described many of the limits to dialogic interaction and so does not wish to equate it with an ideal democratic practice. In the ABC context it is constrained in many ways, not in the least by disciplinary understandings of what constitutes safe and appropriate interaction. Nor will such activity necessarily be an encounter with difference. The ABC’s forum users can avoid what they do not wish to address, ignore posts, log off and walk away from difficult engagements. Yet in the moment of considering performing themselves they are at least thinking about the terms and possibilities of exchange.

Significantly ABC program-makers do not have to take sole responsibility for recognising and interpreting difference, although this project should not be abandoned, but can offer the ABC Online and its databases as spaces for an ongoing exploration of these processes. Where broadcasting promotes cohesion by suppressing difference, there is a potential for ABC Online be cohesive by helping users to perform and unravel the construction and function of difference. The greater ABC system could then, for example, become a site for discussing how cultural assumptions and myths underlie events such as sudden terrorism-framed riots over Muslim identity, the ownership of beaches and the ethics of beach-going. Broadcasting would represent this event. User dialogue would perform, present and, ideally, negotiate the meaning of it, being distinguished from broadcast commentary in the sense Ghassan Hage (2003) makes between “being critical against” and “being critical with”.

A more mediatory, cooperative publishing strategy would give users rights to participate in the shaping and maintenance of the ABC’s interactive spaces and to the reworking of its texts. It would include mutually developed guidelines expressing the conditions of access and connectivity, collaboration and redistribution. In this way the ABC might distinguish its particular “mode of information”, by which Mark Poster (1990:126) refers to the electronic mediation of social relations, from the commercial mode which has a paramount commodity focus on interactive relations. The ABC would be free to conduct commercial interactions with its users, but these should be secondary to the conduct of reciprocal communications and productive relationships with users.

3 The Cronulla riots of 2005 raised enormous debate in Australia about the limits of multiculturalism and the power of the media to exacerbate ethnic antagonisms (see Noble, 2007).
At this point I want to return to the notion of reciprocity and how it might be articulated in terms of the ABC’s governmentality. In light of this study I would argue there are two new objectives for the ABC which could be considered consistent with its existing roles and which would support an extended – perhaps unwieldy – Reithian pledge: “to inform, educate, entertain, connect and involve”.

**Connect and Involve**

ABC executives recognised ABC Online as a new means of unifying the nation, of linking its diverse and dispersed audiences. The Internet provided those ‘return paths’ by which the ABC could assemble both the representation and performance of Australian identity. ABC Online made the organisation’s regional activities in particular more accessible to city dwellers. As such it delivered culture-at-a-distance beyond broadcasting; it became the social and economic glue of a mobile population.

ABC Online operates as a contextual technology – a databody, a network and an archive. It represents, preserves and yet constantly remakes relations between narratives. This is another reason why search and linking tactics should play a central part in the ABCs interactive media plans. They are critical to its relevance on the network and integral to the process of re-territorialising the ABC in the global flows. Through them the ABC is made visible and effective, a participant in community and national development rather than a reporter of it.

Online there is no apparent physical barrier to cooperation between national media in pursuit of international or transnational dialogue. Mark Raboy (2003, 2005) argues for instruments of global media governance that would facilitate debates on issues of transnational importance. This could already be achieved by the collaboration of public service media to create online forums on the prosecution of terrorism, climate change, and human rights. Public media have been avowedly national, but online services are a platform from which their users can search for intercultural solutions to international problems.

I have indicated that user agencies created some institutional anxiety about maintaining the integrity of ABC webspace. Exemplars’ compulsion to protect it from contamination by minimising reciprocity (eg. limiting links and removing email addresses from posts) was,
during the decade under study, a barrier to increasing textual diversity, information interchange and cultural impact. It is important to recognise that building national connectedness in a networked environment is not merely a structural question of universal access to a service. It is also an ongoing project of developing inclusive communicative techniques: cultivating proximity, responsiveness and shared activity. There is useful research to be done here in investigating how ABC users experience reciprocity online and whether it contributes to a sense of recognition, that critical factor in maintaining social bonds (Lash and Featherstone, 2002: 15).

In an earlier essay (1999) I described an online ABC as a knowledge-broker, a term used by Graham Mercer and Tony Bennett (1995) in their study of Australian libraries. Like libraries, the ABC was historically seen “as strategic in the dissemination and management of knowledge for the purposes of social regulation, moral and ethical improvement and rational recreation” (p. 17). But the tag ‘broker’ is difficult not only because it invites purely economic readings, the buying and selling in a marketplace of ideas. While broking implies mediating the provision of goods and services the ABC has been equally successful in encouraging its users to comment, to discuss, to make and to invent. It also mediates their creativity and sociality.

Where it invites them into dialogue the ABC is performing a new role: involving them in a collective, rather than individual, interpretation of the national. Participation in common activities, alongside reciprocity, is the second pillar of recognition and social integration. Exploring social creativity in a more sustained manner would enhance the ABC’s function as a public organisation that builds coherence from diversity. Yet such practices were not a concern for the previous reviewers of the ABC, Dix and Mansfield. Nor were they touched on in the Telstra-inspired review of the ABC’s online content services. So the scope for public interaction with the public broadcaster has yet to be closely examined or evaluated as a policy development exercise. The ABC is your ABC only to the extent that it serves, rather than engages you.

Real participatory exercises take time and community building. Involving users in action with a common goal is a new exercise in media training and one not always suited to the short term imperatives of much media production. Participatory media may even appear to belong to an
era of old civic culture, which David Marquand (2004) cites as the antithesis of populism. Yet ABC Online can be both populist and quasi-deliberative. Online opinion can counterpoint institutional expertise in a ludic field, as in *Self-Service Science*. The trick to getting people involved in knowledge production, as Dr Karl argues in his forum notes, is not to reveal your authority. Although he subtly directs the flow of exchange on the site through his broadcast show, picking avatars and determining how his site will develop, his site works to foster the imagination and expertise of user/citizens. It values experimentation and play - another fertile site of research for digital PSB scholars interested in escaping the consumption/production binary.

In this thesis the ABC system has evolved successfully despite financial and political constraints because of its exemplars’ abilities to connect and involve users in creating ABC flows and information structures, incorporating their disorganisational influences. In this sense perhaps media organisations, which facilitate translation, trade in ideas and monitor social change, are more transparent than other institutions in their informational transformation.

**The twisting dialectic**

Media is Lash’s ideal-typical industry for the contingent, circulating objects of global capitalism (p. 64). Media and information technologies are central to the maintenance of informational capitalism. Media organisations can be used to reproduce social order but increasingly they are also doing violence to it: circulating the new, the shocking and the unfamiliar, drawing on the disorganisational (fan communities, bloggers, friendship networks) to sustain momentary user interest in their product. New media objects themselves often are disorganisational – unregulated, decentralised, based on the production of experience, on shared values and interests. Old media feed on them to sustain their institutional, regulated flows and, in the case of specific governmental strategies (ad campaigns, public relations), to distinguish and reinforce social norms.

ABC Online is an example of this informational dynamic. As Burns (2003) describes it, ABC Online was an exercise in ‘becoming’ the ABC, a way of radically re-imagining the organisation inspired by a moment of economic, political, technological and social change.
Ian Vaile, former content head of ABC Online, spoke evocatively of this moment as it was happening:

A lot of things have combined to make it a real time of chaos...at that same time that very flux means there are intersections opening up, gaps opening up where there weren’t before, where relationships can be made anew...and that seems to be philosophically something really strong coming out of this unit – that they see this...as a time of opportunity...in which a unit like this, which in a lot of ways acts in a sort of guerilla basis within the organisation, can thrive and get projects up and running. So there’s a real sense of urgency, which I hadn’t quite expected. Sooner or later everything’s going to settle down into a new pattern and Multimedia has to position itself for the next half-decade...So we have a small window where we have to set up strategies to take us into the next century. (Ian Vaile interview, 1997)

In an informational society media institutions are locked into the twisting dialectic which Lash (2002) invokes and then barely explains – a constant play between agency and control, molar and molecular forces, organisation and disorganisation – because they are focussed on exploiting the new. They encourage feedback and participation both as evidence of demand (measurable worth) and to supplement and modify their output. They prioritise the production of new ideas over reproducing old values, privileging experience more than integration. This is the accusation that Michael Tracey and others level at commercial media, but can be equally true for PSB.

For PSB to now bring something different to the act of translation it must be concerned with providing a permanent articulation between organisation and disorganisation that is not exploitative, not just concerned with feedback or even participation but with dialogue, mediation and deliberation. This is where television, so far, has failed. Television can represent the universal and the particular. It makes us aware of and feel empathy for the other, but it does not engage us immediately in talking out the disjunctures between us and them. It is the norm of a fragmented and de-territorialised society. Even when it suggests commonality through national spectacle it cannot, being time bound, effectively express the multitude of affective experiences of that shared moment.
Using dialogic mechanisms the ABC can better mediate between its audiences in their search for meaning and respond to their critical attentions. It can also store, index and open its flows to change and dispute. Such things have happened online at the ABC, although not in a consistent or planned sense. But they lack both critical appraisal and what governmentality scholar Nikolas Rose (1999) would call an ‘intelligibility’ – that is a language for articulating their performance in terms of public service media. I have begun to provide those ingredients here, but they need broader investigation and discussion.

This could be achieved in three moves. First the ABC might more thoroughly document its interactive media education strategy and its innovation activities, together with any modifying or multiplier effects (where user knowledge for example, leads to shifts in organisational structure of procedures). This cyclic reporting is common in business and education sectors and would help to explore the extent to which the ABC does support learning communities or systemic innovation.

Such information should contribute to a long overdue review of the ABC’s role. The first section of this thesis indicates that while ABC Online was critical to the ABC’s informational adaptation, the corporation’s legislative framework does not clearly legitimate the provision of an online service. The ensuing half of this work suggests a review of this position is now necessary, signalled by any shifts to ABC’s governmental function during the period under study.

It is a decade since Mansfield, during which the globe’s communicative practices and flows have been thoroughly altered. Since 2002 there has been sustained international focus on the role of public access online services, particularly in Britain following the Graf review of BBC Online. Burns (2003) argued a review of the ABC was warranted in Australia, but unlikely given the Howard government’s earlier investigation into the commercial use of online services and its antipathy towards the ABC. Under the Coalition the fear of exposing the Charter to unhelpful or reductive revision left ABC Online in ongoing limbo, an uncelebrated part of the ABC’s digital media output. Yet with a new Labor government in office, whose focus is improving Australia’s educational standards, both funding and service priorities may be considered differently.
Finally any shift in the ABC’s role would need to be expressed through changes to the ABC Act and the Charter (Appendix 1). The Charter is used internally and externally as a reference point for the activities that are legitimately public service (Burns, 2003). Contentious terms like innovation can, in instances like the Mansfield review, be considered illegitimate because they bring the ABC into conflict with the commercial sector. Innovation will always be a problem where it is a case of ‘us and them’, rather than ‘we’ who are doing it. And it is the collective ‘we’ of public service media, rather than the individual you, which should be foregrounded in any discussion about the future role of the ABC.

Our ABC

If Australians are interested in keeping the ABC as a technology of government they must debate publicly how it can best serve their information needs. I have suggested it has two primary integrative roles, contextual and mediatory.

In terms of access to networked information, the ABC has no control over the state’s development of national infrastructure or equitable pricing policies. It can, however, provide publicly accessible information in forms that allow it to be annotated and redistributed extending the translation capacity of broadcasting. Models for content sharing could encourage media play and creativity, if not always innovation. Maintaining information context will also become increasingly important as history, in tides of data, accretes on servers around the globe. There may be millions of individual sites which offer expressive freedom, and many search and aggregation tools, but few institutions like the ABC which have the potential to create, assess, discuss, record, archive and facilitate the retrieval of information in ways which give it historical and cultural meaning.

There are alternatives to this proposal. The state could fund commercial media to undertake this project, as has been the case in Britain. Yet in an environment where several of Australia’s media already have international commercial affiliations it is questionable whether that strategy would unequivocally lead to outcomes of national benefit. Equally it would require a considerable investment from those organisations (and the state) to develop the mechanisms of accountability and relationships of trust already developed around the ABC. In Britain, where the BBC’s competitive strengths have led to concerns about its new media
involvement and where a licence fee supports diverse public service media initiatives, there have been proposals for a separate public service publisher, which would focus on developing innovative content and interfaces for new digital media platforms (Docherty, 2004; Mason, 2005). In the Australian context, this proposal may risk fragmenting already limited funds available to the SBS and ABC and weakening their existing contribution to a national innovation system.

At the same time one of the most significant challenges ahead for the ABC is securing adequate funding to maintain and develop online and other new interactive content. As an experimental endeavour, its interactive multimedia programme has often been dependent on alliances with commercial bodies and project-related government grants (the ongoing science innovation and national interest funds). This reliance has the capacity both to threaten the corporation’s independent stance and in the long term to unreflectively direct policy-making and innovation strategies. It also guarantees silences around the rationality of the day. And if the ABC is to move away from cultural nationalism and towards a service industry or innovation systems justification for funding interactive services this further needs debate. Is, for example, specialist state funding for arts publication still necessary and if so, why?4

Similarly while iTV and broadband remain attractive technological investments because they can deliver more feature-rich digital television, the ABC also needs to retain an investment in the technocultural practices which best meet its governmental objectives. This is not to say the ABC should abandon iTV, but merely that it not consider digital or even IPTV television as a more complete communications response or a greater priority than web publishing unless those systems can incorporate the connective and participatory features of the Internet.

This thesis argues that a review of the ABC’s digital media activities is critical to establishing the case for any continued development of online services and their funding vis a vis other forms of interactive multimedia or broadcast production. The ABC, if it is to function effectively as a technology of government, must respond to social change and particularly to changes in use of communications technologies. Yet it cannot do so effectively where successful shifts in its core focus are not reflected clearly in its policy remit.

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4 In December 2003 ABC Online ceased developing its Arts gateway The Space (Jacka, 2004) and fully automated content supply to the site. It now acts as an aggregator of arts information and has no dialogic features.
The organisation has been discursively prodded and legislated into enacting the political rationale of the moment. It can articulate its activities in terms of enterprise goals, choice, and personalisation but should liberal individualism be its new telos, post-integration? Or is there another set of questions that needs to be asked about the role of a public service media organisation in a nation torn by rifts over race and identity, security and terror. Are there other frames for talking about that nation that have yet to be explored in representative forums such as broadcasting?

In *Powers of Freedom*, Rose asks what a genealogy of freedom might achieve:

It would ask if there were ways in which we could become experts of ourselves without requiring submission to an image produced by entrepreneurs or a truth produced by authorities. It would ask if there were ways of practising freedom that did not fix us through a hermeneutics of identity, did not entail the forlorn attempt to consume our way out of our dissatisfactions, but were open, inventive and questioning. It would ask if there were ways of organizing our concern for others that did not seek to set them free – relations of obligation, of commitment, perhaps evoking an older sense of care. It would help us to calculate the costs of being what we have become; hence it might allow us to invent ways of becoming other than what we are. (Rose, 1999: 97)

It is these questions that public service media might usefully consider in an information society. Should a multimedia ABC leave you to determine your ethical path from an assortment of ideas, attitudes and identities? Or could it challenge us to perform and present ourselves, to enter dialogue with those we cannot recognise, to apply our expertise to deliberation, collaboration and innovation? Could it assist us in building our own rules for governing, ones that acknowledge inter-communal rather than tribal or communitarian associations? Could the ABC be more playful and less closed? Might it then be our ABC?
Appendix I – ABC Charter

The functions which Parliament has given to the ABC are set out in the Charter of the Corporation (s. 6(1) and (2) of the Australian Broadcasting Corporation Act 1983).

6 (1) The functions of the Corporation are:

   a. to provide within Australia innovative and comprehensive broadcasting services of a high standard as part of the Australian broadcasting system consisting of national, commercial and community sectors and, without limiting the generality of the foregoing, to provide:
      i. broadcasting programs that contribute to a sense of national identity and inform and entertain, and reflect the cultural diversity of, the Australian community; and
      ii. broadcasting programs of an educational nature;

   b. to transmit to countries outside Australia broadcasting programs of news, current affairs, entertainment and cultural enrichment that will:
      i. encourage awareness of Australia and an international understanding of Australian attitudes on world affairs; and
      ii. enable Australian citizens living or travelling outside Australia to obtain information about Australian affairs and Australian attitudes on world affairs; and

   c. to encourage and promote the musical, dramatic and other performing arts in Australia.

6 (2) In the provision by the Corporation of its broadcasting services within Australia:

   a. the Corporation shall take account of:
      i. the broadcasting services provided by the commercial and community sectors of the Australian broadcasting system;
      ii. the standards from time to time determined by the Australian Broadcasting Authority in respect of broadcasting services;
      iii. the responsibility of the Corporation as the provider of an independent national broadcasting service to provide a balance between broadcasting programs of wide appeal and specialised broadcasting programs; iv. the multicultural character of the Australian community; and
      v. in connection with the provision of broadcasting programs of an educational nature – the responsibilities of the States in relation to education; and

   b. the Corporation shall take all such measures, being measures consistent with the obligations of the Corporation under paragraph (a), as, in the opinion of the Board, will be conducive to the full development by the Corporation of suitable broadcasting programs.

6 (3) The functions of the Corporation under sub-section (1) and the duties imposed on the Corporation under sub-section(2) constitute the Charter of the Corporation.

6 (4) Nothing in this section shall be taken to impose on the Corporation a duty that is enforceable by proceedings in a court.
Appendix 2 – List of Interviews


Prof. Mark Armstrong, former ABC Board chairman – preliminary interview 10th October 1999

Thomas Ashelford, formerly of ABC Multimedia – interviewed 9th July 1997

Kevin Balkan, ABC IT – interviewed 6th June 1998

John Bartholomaeus, ABC Program Resources and Information – interviewed 6th February 1998

Clare Byrnes, ABC Science Online – interviewed 11th July 1997

Suzanne Campbell, ABC Multimedia – interviewed November 2001

Ian Carroll, Executive Producer ABC TV, seconded to ABC Interactive – interviewed September 1999

Margaret Cassidy, Executive Producer of The Backyard March – November 2000 – interviewed 12th July 2000

Andre Colbert, ABC Multimedia – interviewed 11th July 1997

Mark Corcoran, ABC TV Foreign Correspondent – interviewed 28th June 1999


Stan Correy, ABC Radio National – preliminary interview 19th July 1999

Marghanita da Cruz, formerly with MIS and Technical Resources & Development – interviewed 24th June 1999 and subsequently by email

Gary Dowling, formerly with MIS – interviewed by email September 1999

Kirsten Garrett, ABC Radio National – interviewed 3rd April 2000

Rob Garnsey, ABC IT/ABC Multimedia – interviewed 10th July 1997


Geoff Heriot, ABC Corporate, head of planning and governance – interviewed 12th January 2006

Peter Hiscock, Foreign Correspondent ABC TV – interviewed 17th May 2002

Helen Hughes, former Deputy Head of Local and Regional Services – interviewed 8th November 2000

Bob Johnston, ABC News Online – interviewed 15th July 1999
Brian Johns, former ABC managing director – interviewed 14th February 2000
Dave Lane, ABC Multimedia, Australians Online producer, interviewed by email 7th December 2005.
Tim Lester, ABC Washington Correspondent – interviewed 25th April 2002
Spencer Lieng, ABC TR&D – interviewed 6th June 1999
Dennis List, formerly research manager ABC Audience Research – interviewed June 1998
John Millard, former producer *Bush Telegraph* site, 12th October 2000
Ian Peter, founder of Pegasus Networks Communications – interviewed March 30th 1998
Brian Ridgway, formerly technical producer *Behind the News* ABC TV – interviewed July 10th 1998
Gabrielle Shaw, research manager, ABC Audience Research – interviewed 5th February 2004
Tony Silva, ABC IT – interviewed April 17th 1998
Ingrid Spielman, web producer ABC Interactive – interviewed 14th February 2000
Mary-Jane Stannus, ABC Content Services – interviewed 23rd August 2005
Julie Steiner, formerly of ABC Enterprises – interviewed June 11th 1999
David Swan, manager ABC Network Services – interviewed 17th April 1998 and 21st November 2000
John Thomas, manager Dataworks, interviewed 6th May 1999
Rob Wellington, principal Tantamount Productions, interviewed 5th February 2007
Jan Zwar, former New Media product development manager – interviewed 12th May 1999

Thanks also to Nonee Walsh, Chris Winter, Guy Tranter, Vanessa Toholka, Rae Allen, Terese Abbey, Peter Jackson, Frank Gapinski and Sharon Davis for their informal comments and queries.
Appendix 3 – Chronology

1992 New Broadcasting Services Act signals the ABC’s entry into less regulated media environment.

ABC Science units establish the corporation’s first internet connections via Pegasus, followed by the Technical Research and Development division.

1993 Rosemary Sinclair briefs senior executives on multimedia strategic directions.

1994 Broadcast News Australia (BNA) launched.

ABC New Media formed as a CD-ROM production unit under ABC Enterprises.

ILANET email trial run.

Microsoft network trial relationship proposed.

David Hill resigns.

1995 Brian Johns appointed.

Behind the News and Hot Chips program-makers launch the ABC’s first independent websites.

April: MSN/ Radio National publishing deal outlined, with August launch date.

July: ABC Multimedia Unit established to co-ordinate online activity and CD-ROM production.

August: ABC Online goes live at <http://www.abc.net.au>. The first wave sites include Hot Chips, Quantum, Behind the News, Radio National, Triple J, and Radio Australia.

December: The ‘second wave’ website launch includes metropolitan radio stations 3LO and 2BL, Four Corners, Classic FM, 24 Hours magazine, TV program highlights and ABC Shops.

1996 March: ABC Online covers its first election, with interactive electorate maps and live results. The server collapses under the pressure.

http (ABCTV) and Click On! (ABC Radio National) launched.

Newslink text news service launched.

December: One ABC policy released and Multimedia unit established as a part of ABC National networks division.
1997
May: *Frontier Online* features the ABC’s first online forum where viewers discuss the TV series.

June: first trial of audio streaming.

July: launch of *The Lab*, ABC Online’s first gateway, later judged one of *Australian Personal Computer*’s top 40 global sites.

August: ABC News Online trials its web service.

December: Mansfield Inquiry report released.

1998
June: launch of *The Playground*, the ABC’s content gateway for children 2-8yrs.

November: launch of the *Space*, the arts & culture gateway.
Federal Parliament presented as a live audio stream via NewsRadio online.

RA Online presents news services in Khmer, Vietnamese, Indonesian and Tok Pisin.
Audio streaming of Indonesian programs begins.

*ABC News Online* launches, claiming to be the first Australian website to combine international, national, state and regional news.

*Message Stick*, the ABC’s Indigenous gateway launches.

1999
April: the *Rural Online* gateway formally launched, developed from Rural Radio’s *Bush Telegraph* site.

June: the *Australians Online* community publishing initiative started.


Cinemedia Multimedia Production Accord launched to fund and develop multimedia productions from the Victorian independent screen sector.

September: the regional gateway *The Backyard* is launched, creating an online community for ABC Local Radio sites.

*News Online* introduces video streaming.

2000
ABC Multimedia renamed ABC New Media, becoming an output division of the ABC alongside ABC TV and Radio.

New Media involved in the early development of the ABC’s digital television services.

February: Brian Johns leaves.
The Broadcasting Services Amendment (Digital Television and Datacasting Act 2000) allows multichannelling and datacasting for the ABC with some restrictions on the type of content.

Coast FM starts streaming live audio.

News Online establishes cross-platform delivery of election news and results via wireless and Internet.

2001

ABC Online launches a stripped down version of its interface to cope with increased traffic following the post-September 11 attack in the US.

Digital TV channels ABC Kids and the youth channel Fly launched.

March: the ABC Broadband News service begins followed by the launch of other broadband channels including Rage, Kids and youth channel Fly.

May: ABC New Media becomes involved in an interactive TV trial with Optus, and a commercial trial commences December 2001.

October: Jonathon Shier resigns.

2002

ABC Kids launches the Rollercoaster gateway for 8-14 year-olds.

Radio National offers all of its available programming as audio-on-demand.

June: the Australian Film Commission (AFC) and ABC New Media announce details of their joint Broadband Production Initiative with an emphasis on high-end, high-technology content that uses interactive applications.

July 1st: ABC turns 70 and screens the BBC’s iTV series Walking with Beasts on the Austar digital satellite platform and Optus’s cable service.

Australia’s first interactive television documentary Long Way To The Top is broadcast on the Austar Digital Satellite service, following the success of the ABC TV series and its accompanying website.

November 28th John Howard opens the revamped Ultimo centre, which will be home to TV, Radio and New Media.

Adapted from ABC Online 10th anniversary history (ABC, 2005).


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To provide the plain text representation of the given document, I would type out the bibliographic entries in a list format, adhering to the citation style used (APA, MLA, etc.). Here is a representation of the content in plain text format:


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