

II

Inquiry...

Nicholas Garnham

Peter Sheehan

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and James Cornford

John Langdale

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Bella Mody

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Charles Lindblom's (1990) book, *Inquiry and Change: The Troubled Attempt to Understand & Shape Society*, provides the key to the theme of this section. Lindblom juxtaposes the ideal and the reality of scientific inquiry and problem-solving, concluding that the process of inquiry, itself, is inevitably impaired. He argues that 'impairments' can be ameliorated to a degree through processes that provide for the contestation of knowledge and its wide circulation. *Networking Knowledge*, the first part of the title of this book, similarly emphasises the importance of the circulation of knowledge through networks of mediating institutions involved in the process of social inquiry. William Melody's commitment to social inquiry invariably means a resistance to the notion of the social scientist as the Platonic 'philosopher-king'. Like Lindblom (1990: 7), he regards problem-solving as 'a broad, diffuse, open-ended, mistake-making social or interactive process, both cognitive and political'. In Lindblom's (1990: 10) analysis, the whole notion of scientific expertise is called into question because, as he argues, 'inquiring citizens and functionaries must choose, with the help of experts willing to probe rather than to hold tightly to conventional scientific inquiry'.

The contributors to this section examine considerations that spring from a commitment to scholarly excellence as defined by universities *and* to social change resulting from improved understanding and action in the world beyond the universities. From different perspectives, they address how it may be feasible to foster institutional arrangements to facilitate high quality research and teaching that is interwoven with the concerns of non-university based actors. Melody (1986b: 3) once argued that 'the purpose of research is to generate information that will increase understanding'. He never treats information as a neutral concept and he is always acutely aware that 'the historic assumption that more information will lead to increased understanding is less and less defensible' (Melody 1986b: 3). In pursuit of the creation and the circulation of new knowledge, Melody champions, not more research output *per se*, but the creation of institutional settings that favour achieving research outputs of the highest quality and with the greatest potential for circulation and appropriation by others.

This, arguably, is what drives Melody's unflagging effort to create institutional arrangements within and outside the university that will provide useful policy research and that will contribute to the training of new cadres of professional researchers (Melody 1985a). In 1976 he took up the Chair of the Communication Department at Simon Fraser University in Canada. As Liora Salter suggests, this interdisciplinary programme generated many contests within the university over the definition of its subject and the standards of excellence. In 1985, in the United Kingdom, Melody designed a new institutional environment for research. This time it was a long-term programme of social science research located within a network of research centres, all operating within university settings. Assessments of the results of this initiative vary. Jean-Claude Burgelman argues that the Programme on Information and Communication Technologies (PICT) in the United Kingdom gave its researchers a lead in European policy research in the field. Nicholas Garnham is sceptical, however. He argues that the force of politically-defined research agendas, and the increasingly pragmatic and 'vocational' remits of universities, are eroding the institutional foundations for critical, public interest policy research. In 1989, Melody forged yet another institutional model for the kind of research he has worked to encourage. In Australia, as Peter Sheehan reports, the Centre for International Research on Communication and Information Technologies (CIRCIT) was located outside the university but with a mission to forge strong academic links. This centre was buffeted by politics and its research output was met with criticism when it directly addressed the concerns of companies and policy makers.

The strengths and pitfalls of various institutional arrangements as sites for critical reflection and learning, and for policy-relevant social science research, are examined from several different perspectives in this section. Melody's position on issues of the structure and conduct of the social sciences, the appropriate standards for determining excellence, and the way to foster research that is both policy-relevant and independent or critical is a complicated one. He wants social science research to be accountable. In the case of the economics discipline, for instance, he said early in his career that,

... if economic theory is to approach that dangerous area where it would be really useful in the formulation of public policy, it must go beyond the task of providing terminology that is supposed to help decision makers select what they think is best from a predetermined number of alternatives. It must provide a basis for the improved assessment of the efficiency of decisions in light of the market reality that develops (Melody 1974: 299-300).

This emphasis on a continuous interaction and interrogation of theory and practice resonates throughout his research and teaching. There could be many explanations for his commitment to a dialectic within the very conduct of social science. The one that we favour is to be found in Melody's exposure to the writings of the Canadian political economist and historian, Harold Adams Innis.

Innis (1951: 190) suggested that:

... mechanization has emphasized complexity and confusion; it has been responsible for monopolies in the field of knowledge; and it becomes extremely important to any civilization if it is not to succumb to the influence of this monopoly of knowledge to make some critical survey and report. The conditions of freedom of thought are in danger of being destroyed by science, technology and the mechanization of knowledge

He argued that the application of technologies for communication and the circulation of information influence the types of knowledge that are disseminated. Within the university, he saw the great danger that the institutional boundaries of disciplines, 'reinforced by the mechanization of knowledge' would conspire to weaken the university's capacity to encourage '... the release of mental energy'. There would be an 'overwhelming tendency ... to build up and accept dogma...' (Innis 1951: 209-10). For Melody, the unchallenged acceptance of dogma is simply not to be countenanced; it is antithetical to the whole agenda of social problem-solving. Melody has retained a commitment to the university as a place that still may provide spaces for the conduct of critical inquiry. But this commitment jostles with his equally strong commitment to 'research in the wild' (Callon 2002 forthcoming), that is, outside the academic world.

Gibbons et al. (1994) and Nowotny et al. (2001) draw attention to the shifting balance between Mode 1 knowledge production (the traditional conception of the scientific enterprise conducted within the university); and Mode 2 knowledge production (the production of knowledge in the context of its application). They argue that knowledge production and learning are social processes. These work best when they involve the close interaction of multiple stakeholders. Universities must find ways of adapting to a shift in the sites of socially relevant knowledge production. This viewpoint is contested by those who admit to the social character of research, but who are committed to pursuing self-determination and the institutions of open science (David, Foray and Steinmueller 1999).

The discussion about how best to organise, fund and evaluate social science research rages on (see Etzkowitz and Leydesdorff 1997; Geuna 1999). Melody persists in the task of experimenting with new institutional formations, more effective ways of networking knowledge, and innovative ways of combining insights from across the disciplines of the social sciences (and often the physical sciences and engineering). He sees it as his responsibility to encourage researchers to become deeply involved with the stakeholders in their research through networks that span the world. He experiments with the application of the new means of communication and information exchange using the Internet and the Web, but he examines the opportunities and dangers of their space and time-binding limitations in true Innisian style.

Nicholas Garnham argues that it is quixotic to regard universities as places (or even electronic virtual spaces) where disinterested public interest research is conducted. For him, Melody's ambitions for the conduct of independent research (at least in the United Kingdom) are an unattainable holy grail in the modern university setting. He suggests that the linkages between public funding and politically-defined research agendas are so binding that they stifle critical research, especially in the field of information and communication policy. Garnham also takes seriously the pressures on the academic labourer that stem from the application of the new technologies. Their implementation, he argues, comes at a cost; a cost that threatens to stamp out the critical perspectives that are essential for social problem-solving. The bias of new media technologies like the Web serves to lock the universities' faculty and students into a supporting chorus for the momentum of the information society, whatever its consequences might be. Melody would most likely admit to these dangers. He would no doubt then set off on another venture to gain the commitment of research funders to his conception of independent research.

Like Garnham, *Peter Sheehan* contrasts the ideal and the reality of the modern university. His contribution contains echoes of Innis' concerns about tendencies toward the monopolisation of knowledge that take hold wherever institutions gain the power to possess and control knowledge. He acknowledges the pressures towards the corporatisation of knowledge and the coincident reduction in funding for independent long-term research. In this case, Melody's initiative to establish a greenfield research institution in Australia was met with jealousy and rigidity within the universities. Those in government and the private sector distanced themselves from the consequences of the social scientists' critiques of their policies and actions. The former were threatened because they believed their funding base would be eroded. The latter were unable to countenance the political or economic implications of what Melody insisted was independent research.

The role of the latest information and communication technologies in support of the global circulation of knowledge via the virtual university is taken up by *John Goddard* and *James Cornford*. They dismiss the rhetoric about the benefits of virtuality and look instead to the experience of the take-up of the new technologies by universities. Like Garnham, they find evidence of unexpected costs and of the need for attention to the coordination of initiatives that set out to create universities 'without walls'. The unbundling of the traditional pedagogic role of the university appears to turn these institutions into intermediaries on a global stage. But Goddard's (1994) and his colleague's commitment to understanding the relationships between space, place and technological change, means that they seek empirical evidence of the consequences of these initiatives. The evidence shows that universities remain rooted in their locations and that, in contrast to the ideal of an elite institution that disseminates knowledge, they are poorly organised to plot a course for change. The tension between pedagogical ideals and interactions of researchers with those in their communities, is one, they argue, that can be worked through. However, success requires strategic action to encourage local experimentation within universities and improved linkages with industrial and social agencies. In line with Melody's ambition of networking knowledge, Goddard and Cornford call for a re-institutionalisation of universities in a way that is sensitive to social and economic transformation and its consequences.

John Langdale is pessimistic about the present capacity of social scientists to generate useful insights into the ways that advanced information and communication technologies are implicated in the economy and in society. Writing from a vantage point of close involvement with changes in the telecom industry as operators have sought to adjust to global competition and to incursions into their domestic markets, Langdale is disappointed by social scientists' contributions to the analysis of the causes and consequences of these changes. He suggests that if the results of some social science research had been networked more effectively within policy and corporate communities, the failure of the telecom operators' mega-carrier strategies and of efforts to capitalise on the earlier dot.com boom would have been less damaging for investors. Langdale calls for more funding and interdisciplinary work as the antidote to the limited ability of researchers to adequately forecast developments in the telecom arena.

The structural features of institutional settings in which social science research is conducted are central to improvements in the contributions of researchers to understanding the implications of the new technologies. In *Jean-Claude Burgelman's* contribution, pessimism is tempered with optimism insofar as he

argues that the technology push agenda for the information society is gradually giving way to an agenda that sees interactions between social and technical processes of innovation as central. Yet, he asks, where are the social scientists who are ready to participate in the process of social problem-solving? Burgelman's (2000) own commitment to networking knowledge is evident in his work on issues of access to, and exclusion from, the information society. He argues that research networks in the social sciences need to be scaled up with commensurate funding so that social scientists can learn how to engage with technical and non-technical issues. Melody's work takes the past and the present as a prelude to the future. He does not favour forecasting as an exercise in 'crystal ball gazing'. Like Innis (1951: 61) who argued that 'knowledge of the past may be neglected to the point that it ceases to serve the present and the future', Melody is always exploring the relationships between older and newer technologies and forms of social organisation. Burgelman argues that social scientists can contribute to technological forecasting if the techniques are used to evaluate counterfactual developments, based on careful analyses of history.

Bella Mody has long been an advocate of the potential benefits of information and communication technologies for development (Mody and Dahlman 1992). Mody points out that the study of communication has provided little insight into how the privately supported media industries might be complemented by initiatives that use the new technologies for the empowerment of people. She argues that far too much emphasis is being given to 'ICT for growth' strategies rather than to 'ICT for distributional equity' strategies. Mody challenges us to examine the way structures of power in the pre-digital age are being replicated in the digital age. She suggests as well that critical communication researchers are disadvantaged in the poorest regions of the developing world by their limited resources to develop teaching materials that distinguish their position in the global economy from that of the wealthier countries.

Liora Salter develops a detailed analysis of what interdisciplinarity means for researchers within universities. She shows that, not only must they rise to the challenge of forging alliances with those outside the academy, but they must fight for recognition within the university. In theory, interdisciplinary research and teaching are meant to produce venturesome advocates of the generation of new knowledge. In practice, the monopolists of knowledge (and funding) within universities raise institutional barriers to change at any sign that their comforts might be disturbed. Salter emphasises that challenging institutional inertia entails more than the penetration of new intellectual spaces. It means careful mapping of the intellectual territory and its boundaries and clear thinking about where core

contributions can be made. In the case of Simon Fraser University's Communication Department, this was at the boundary between changing communication processes and technology and policy. Salter argues that it is not simply the scope or the complexity of the subject matter of communication that the university found unsettling. It was Melody's advocacy of a critical approach – part philosophy and part ideology – that worried the establishment of the university. Melody advocated a link between the natural and technical sciences and the social sciences and humanities because he recognised that this coupling could offer a foundation for challenging orthodoxy inside and outside the university.

Innis argued that different media for the circulation of knowledge imply biases in the organisation of space and time with very real consequences. He argued that the introduction of any new medium would be influential (not determining) in setting the conditions for the monopolisation or the de-monopolisation of knowledge (Innis 1950). Networking knowledge clearly requires the latter. The social scientist's challenge is to analyse the specific conjunctures of institutional organisation, technology and knowledge with a view to revealing the biases so that they might be altered. Lindblom, similarly, was committed to the idea that knowledge must be contested.