Can the arts and humanities survive the knowledge economy: A beginner's guide to the issues


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Elizabeth Bullen, Jane Kenway, & Simon Robb

CAN THE ARTS AND HUMANITIES SURVIVE THE KNOWLEDGE ECONOMY? A BEGINNER’S GUIDE TO THE ISSUES

We have begun this book with a provocation—a textual irritant designed to problematize the notion of the knowledge economy. Offered as the only viable and virtuous path to disciplinary and university survival, and also to nation building, economic growth, and technological adaptation, knowledge economy policies have taken on characteristics common to all metanarratives—they offer salvation to those who will follow and damnation to those who do not, will not, or cannot. The knowledge economy metanarrative, couched in the hyper-rational language of international governmental bodies and national governments, is powerful and oppressive. Our provocation satirizes this narrative. Its purpose is to take the edge off its power, to make it seem ridiculous by hyper-extending the logic latent within it. We seek to disturb its inexorable rationality, to help to create some space within this narrative for another way of working with notions of “knowledge” and “economy.” Our hope is to lift a little of the burden placed on those disciplines that, beneath the weight of current polices, have begun to see themselves as the knowledge economy damned.

The knowledge economy has created a crisis of legitimacy for higher education and research in the arts and humanities. Under conditions of an in-
Increasingly competitive global market economy, developed nations and international policy organizations have developed knowledge economy policies that have become a lever of change in higher education teaching and research. These policies (see, for example, OECD, 1996) identify the rise of knowledge-intensive productivity, the globalization of economic activity, and the networked character of economies and cultures as key features of the global knowledge economy (for commentary, see Marginson, 2002; Castells, 2000). Policy responses to this environment, influenced by the same New Growth theories (Cortright, 2001) embraced by the Bush administration in the United States, typically orientate higher education to an innovation system or process that positions knowledge as the key factor of economic growth.

Despite gestures to the arts and humanities such as the United Kingdom's creative industries push and its establishment of an Arts and Humanities Research Board in 1998, the general trend in higher education is towards privileging those knowledge disciplines most amenable to commercialization. Hence, the focus has been on science and technology research and collaboration between universities and industry—see, for example, the European Commission's Sixth Framework (2002) and the Commonwealth of Australia's Backing Australia's Ability (2001) as well as the various U.K. White Papers (Department of Trade and Industry, 1998, 2000, 2001). One consequence of this trend has been a consistent tension in policy discourse which makes claims about the value of the arts and humanities, but resiles from the apparent incompatibility of these disciplines with the commercial and entrepreneurial orientation of the innovation system (see, for example, World Bank, 2002).

The purpose of this book is to investigate and speculate on some of the ways in which arts and humanities higher education and research can respond in this global policy environment. How the tensions are played out at the level of international and national higher education policy, within university arts and humanities departments, and within the process of writing itself, are the subjects of this book. Its aim is to provide a critical engagement with the key issues as well as conceptual and other resources to assist those in the arts and humanities to think about future directions these disciplines might take. It offers the perspectives of arts and humanities scholars from a range of disciplinary backgrounds including French, philosophy, literary studies, and architecture; the traditional disciplines (history), the new humanities (cultural studies), the creative arts (visual arts) and the creative industries (media studies). The contributors to this volume represent a range of stances toward the key question of whether the arts and humanities should adopt, adapt, or resist knowledge economy policy imperatives. To answer this question, they employ a variety of approaches and strategies, including theory (subcultural theory,
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poetics, ethics), theorists (Deleuze, Guattari, Derrida, Hunter, Agamben), and modes of inquiry (policy analysis, case study, history, comparative analysis, philosophical meditation, satire).

The subject of this chapter is the knowledge economy itself, and its aim is to map the evolution of the policy terrain which the arts and humanities must now negotiate. It offers an overview of how and why the knowledge economy policies are reshaping knowledge production in the higher education and research environment and some of the implications for the arts and humanities.

A Short History of the Knowledge Economy

The notion of the knowledge economy made a decisive entry into policy discourses when the Organization for Economic Cooperation and Development (OECD) published *The Knowledge-Based Economy* (1996). This report outlines trends and implications for employment and government; the role of the science system; and indicators of the knowledge-based economy. It defines knowledge-based economies as “economies which are directly based on the production, distribution and use of knowledge and information” (OECD, 1996, p. 7). In this document, the knowledge-based economy functions as the overarching term that encompasses variant and related notions of the information society, network society, and learning economy. These concepts are generally oriented toward and facilitated by information and communications technology in the global economy. However, these terms are also frequently confused with the knowledge economy and each other (Peters, 2001). Indeed, the very existence of the phenomena this family of terms purportedly represents is contested (May, 2002; Webster, 1995).

One of the reasons for this confusion—and contestation—is that the idea of what we here call the knowledge economy emerged much earlier than the 1990s. As we show elsewhere (Kenway, Bullen, & Robb, in progress), the genealogy we will sketch in this chapter begins in the late 1950s and, depending on disciplinary and conceptual perspectives and emphases, has seen a range terms used to describe this evolving phenomenon. Beniger (1986, pp. 4–5) lists some 75 terms coined to describe contemporary socioeconomic and technology-driven change between 1950 and 1984 alone.

The seeds of the idea of a knowledge society/economy were sown by Professor of Management Peter Drucker (1959) who coined the terms “knowledge worker,” “knowledge work,” and “knowledge industries.” It was around this time that white-collar workers first outnumbered blue-collar workers in the U.S. workforce (Naisbitt, 1984). Later Machlup (1962) calculated that 29
per cent of the U.S. gross national product (GNP) derived from knowledge industries: education; research and development (R&D); communications media; information machines (i.e. computers); and information services including finance, insurance, and real estate. Drucker (1969) is credited with introducing the concepts of the knowledge economy and knowledge society.

However, others argue that the notion of the knowledge economy had its roots elsewhere in the literature of postindustrialism (see also Masuda, 1980; Touraine, 1974), in particular the version theorized by sociologist Daniel Bell (1976). Bell anticipated a number of the key features of the knowledge economy including the centrality of the computer and ICTs, the construction of knowledge as a commodity, and the replacement of labor and capital with information and knowledge. He uses the terms “knowledge society” (1976) and “information society” (1976, 1979), but rejects both in favor of “postindustrial society.” Later he was to relent on this, conceding that a new social framework based on information technology and telecommunications “may be decisive for the way economic and social exchanges are conducted, the way knowledge is created and retrieved, and the character of work and occupations in which men [sic] are engaged” (Bell, 1979, p. 533).

Indeed, driven by the advances in and diffusion of information and communication technologies (ICTs), the so-called information revolution saw “knowledge” displaced by “information” as the source of economic growth (Porat, 1977). The currency of the information society and information economy during the 1970s and 1980s may have been assisted by hype surrounding technological change and the rapid spread of information networks. Certainly, information technologies were privileged over other forms of technology as a factor of economic growth. Information, unlike knowledge, can be encoded and distributed via ICTs, and it is therefore more easily quantified, even if the quantification of information remains contentious (Roszak, 1986; Webster 1995). By the end of the 1970s, a number of national governments including Japan (Ministry of International Trade and Industry, 1969), France (Nora & Minc, 1978), and Canada (Valaskakis, 1979) had developed explicit information society policies.

Yet, as Morris-Suzuki (1988, p. 8) points out, “the term ‘information society’ is one which is more often used than defined.” Although its “comfortable elasticity of definition” does not mean that “the concept is a vacuous one” (Morris-Suzuki, 1988, p. 8), it is perhaps this lack of precision that saw the emergence of competing terms in the 1990s. Theories of the learning society and learning economy appeared in the early 1990s and, as indicated above, “knowledge economy” and “knowledge society” re-appeared in the mid-1990s. Their use has been equally imprecise, although it is arguable that each represents an inflection of a fundamental idea. This is evident in, for example,
the way in which "knowledge society" is defined in policies (when it is defined at all). Knowledge society is evidently a broader and more inclusive concept than knowledge economy. However, while it may encompass the social distribution of knowledge and is frequently used in policy in regard to employment and education, the basic definition of the knowledge society in policy documents remains remarkably similar to those of the knowledge economy (see, for example, European Commission, 2003, p. 2).

One reason for this slippage—and our preference for the term knowledge economy—is that, although the conceptual tributaries to the knowledge economy debates are many and growing (management, sociology, policy studies, futurology, politics, education, cultural studies—and in this volume, the arts and humanities), it is economics that has been the most influential in policy conceptualizations. It is notable that sociological explorations, with their more comprehensive analyses of the social benefits and risks of politico-economic change, are rarely referred to in policies.

Still, while the knowledge economy is related to the information society, it is not simply the information society under a different brand. It reappears in policy discourses as part of an evolving conceptual trajectory. Knowledge is a far broader concept than information, which ultimately comes down to data. Likewise, technology in the knowledge economy includes, but goes well beyond, information technologies. Indeed, it is not a particular technology per se that drives the economy, although some neo-Schumpeterian economists link dominant technologies with economic cycles (Perez, 1983, 1985) and elsewhere we have examined the influence of this techno-economic paradigm (Bullen, Robb, & Kenway, 2004; Robb & Bullen, this volume). According to New Growth (Romer, 1986) and other influential endogenous growth theories (Howitt, 2000), economic growth is driven by technological progress or innovation that involves the inputs of existing knowledge and human capital to make new and improved knowledge products. Technological change is oriented to market imperatives and is equated with knowledge generated through applied or commercial research (OECD, 1996). Indeed, it is "the context of application" that "describes the total environment in which scientific problems arise, methodologies are developed, outcomes are disseminated and uses are defined" (Nowotny, Scott, & Gibbons, forthcoming).

Endogenous growth theory differs from classical economic theory, which acknowledges the importance of knowledge to economic growth but regards knowledge as exogenous—that is external to—the economic process or growth model (Solow, 1970). In endogenous models of macro-economic growth, the knowledge is endogenous, that is, internal, to the model, and grows as a result of maximizing the behavior of knowledge workers and knowledge resources.
It is this that puts higher education and research at the center of economic policies and that makes investment in human capital via education and training and funding of research and development so important to economic growth. It is this that helps us better understand the significance of policy intervention in higher education and research, and funding incentives for the development of, for example:

- research “clusters” and “centers of excellence” to assist with the generation of new knowledge and critical mass;
- transdisciplinary and transnational networks to assist with access to the best knowledge;
- collaborative relationships with firms to help spread risk and resources and to assist with the commercialization of research; and
- a new generation of researchers adept in the so-called “enabling” sciences (mathematics, physics, and chemistry) which will service the biotechnology, nanotechnology, information technology, and as yet unimagined industries.

All of these measures are designed to maximize knowledge production and thus economic growth.

The effect of this on the research environment has been profound, not least in regard to knowledge production itself. The concepts of Mode 1 and Mode 2 knowledge production theorized by Gibbons, Limoges, Nowotny, Schwartzman, Scott, and Trow (1994) provide one account of this change (see also Jeffcutt; Redshaw, this volume). In *The New Production of Knowledge: The Dynamics of Science and Research in Contemporary Societies*, the authors distinguish between the cognitive and social practices of Mode 1 (or traditional, specialized academic) knowledge which is exogenous, and Mode 2 (or socially distributed) knowledge which is endogenous to the innovation process. Elsewhere, Gibbons (1994, online) summarizes further differences between the two:

> in Mode 1 problems are set and solved in a context governed by the, largely academic, interests of a specific community. By contrast, Mode 2 knowledge is carried out in a context of application. Mode 1 is disciplinary while Mode 2 is transdisciplinary. Mode 1 is characterized by homogeneity, Mode 2 by heterogeneity. Organizationally, Mode 1 is hierarchical and tends to preserve its form, while Mode 2 is heterarchical and transient. Each employs a different type of quality control. In comparison with Mode 1, Mode 2 is more socially accountable and reflexive. It includes a wider, more temporary and heterogeneous set of practitioners, collaborating on a problem defined in a specific and localized context.

The shift to issue-based, collaborative, and transdisciplinary research with
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commercial applications may have initially represented an adaptation or accommodation to the evolving knowledge economy—in particular, the massification of higher education and competition for resources in the post-welfare state (see Macintyre, this volume). However, taken up by policy makers (for example, Kemp, 1999; OECD, 1996), the notion of Mode 2 knowledge production has become increasingly prescriptive, even if this is currently a matter of favor (funding) rather than penalty.

Nowotny, Scott, and Gibbons (forthcoming) acknowledge the way in which their thesis has been exploited, oversimplified, and opportunistically manipulated by academics and policy makers alike. Their original 1994 thesis is much broader than the focus on Mode 2 knowledge production would imply. Reflecting on the five contexts in which Mode 2 knowledge developed, Nowotny et al. (forthcoming) describe the role of the humanities in knowledge production. They say the humanities are

the most engaged of all disciplines, not simply because they flow through the culture industry (for example, through novels or popular history) but because they comfortably and inevitably embody notions of reflexivity which the natural, and even the social, sciences distrust normatively and methodologically.

The authors now argue that it is necessary to think beyond the context of "application" as the total environment of knowledge production, which they say actually reinforces hierarchical, linear, and positivist approaches. They suggest that what is needed is a capacity "to reach beyond the knowable context of application to the unknowable context of implication" (Nowotny et al., forthcoming). This involves reflexivity and reflexivity is an expertise that the humanities are well placed to provide (see also Bullen, Robb, & Kenway, 2004).

Unfortunately, in the clamor to become competitive knowledge economies, too many advanced economies are continuing to prioritize applied research and entrepreneurial activities, with clear and often short-term commercial pay-offs; to dictate research priorities (Cunningham; Macintyre, this volume); to privilege corporate values over academic values in decision making (Anyanwu, this volume); and to evaluate research performance in ways that create particular problems—and opportunities—for the arts and humanities.

Adopt, Adapt, Resist?

The knowledge economy and associated policies place new pressures on the arts and humanities and raise questions about their role. The techno-economic
orientation of policy impacts on what research is supported or promoted, and traditional arts and humanities faculties fare poorly under this new rubric. Current knowledge economy policies intensify the already pervasive view of a dichotomy between learning for its own sake and learning that is instrumental (see Robb & Bullen, this volume). Despite the commercial success of the creative industries and the British initiatives indicated above (Jeffcutt, this volume), many policies fail to pay much more than lip service to the social, cultural, intellectual, and, indeed, economic role of the humanities (Cunningham, this volume). The viability of research in the humanities is further compromised by the economic rationalization to which many disciplines are increasingly subject.

It is our view that the fundamental value of higher education teaching and research in the arts and humanities is not in question. The benefits of such scholarship (Bigelow, 1998, p. 37) include:

- the vital role it plays in intellectual freedom;
- the indispensable service it provides through critical analysis;
- the provision of a sense of place in history and the world;
- its function as a key player in public culture;
- the preservation and transmission of traditions from one generation to the next;
- the questioning and maintenance of ethical values; and
- thinking constructively about what the future may hold.

However, as we have argued elsewhere (Bullen, Robb, & Kenway, 2004), these qualities are also largely intangible, certainly not technology-driven, and problematic in terms of producing measurable economic outcomes. Linked to national benefit, they may indeed contribute to informed policy making, social cohesion, and provide employer-friendly skills such as those identified by the Royal Society of Arts as “communicating effectively, teamwork, negotiation, co-operation” (Bayliss, 1999, p. 15). These are skills that have been identified in a range of policies (see for example CERI, 2001) as the generic skills of the knowledge worker, but they are difficult to measure quantitatively. Ironically, they are probably easier to quantify than the other competencies and values that arts and humanities scholarship impart.

Faculties of the arts and humanities feel increasingly compelled to justify their existence within the techno-economic understandings of the knowledge economy via the rhetoric of technologization and commercialization, innovation, and collaboration. Foregrounding the imperative to commercialize, Gillies (2001, p. 42) iterates some of the particular difficulties commercialization poses for the humanities and social sciences in terms of researcher autonomy
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and research for the public good, but concludes that these disciplines "risk deeper penury and even depiction as the Luddites of the twenty-first century, unless they can embrace the commercializing spirit." This view captures the deep ambivalence many feel in the current environment, but it is also a view that is ultimately reductive and insufficiently reflexive. To paraphrase Nowotny et al. (forthcoming), it fails to do what they suggest the humanities are best placed to do, and that is to address "the unknowable context of implication," in this case, the implication of our own responses to the current crisis (see also Loo, this volume).

Our ability to critically interrogate our own position—and the challenge to the legitimacy of the arts and humanities in the knowledge economy policy environment—is too often limited by binary thinking: public versus market interests, science versus humanities, tradition versus innovation, vocational versus liberal education, basic versus applied research, aesthetic versus cognitive. At the same time, the exigencies of academic life are such that too many in the arts and humanities are only able to experience the impact of knowledge economy policies at a system level, with little opportunity to reflect upon the broader contexts and implications of this global phenomenon. Among those who do, there is little consensus as to whether to adapt, adopt, or resist the new policy imperatives.

The purpose of this book is to represent some of these various and often conflicting stances and to explore ways in which the arts and humanities might practically and innovatively reconstruct themselves under knowledge economy policies. It seeks to do this in a number of ways.

First, it seeks to locate the challenges facing the arts and humanities in the context of the global policy environment, international trends in higher education and research, and at a national and system level. Kenway, Bullen, & Robb situate the development of knowledge economy policies within the broader context of globalization. They focus on the increasingly influential role of supranational organizations such as the OECD, World Bank, and UNESCO in higher education and research policy. Cunningham examines the way in which standard innovation and research and development agendas are evolving internationally, and the problems with them. Taking the example of the creative industries, he makes the case for including the humanities and creative arts in these agendas. Macintyre, meanwhile, explores the impact of knowledge economy policies in the context of the history of higher education teaching and research in the humanities in Australia to provide a case study and a context for an analysis of their impact in other countries.

Second, this book seeks to explore ways in which the policy debate might be challenged or critically reinterpreted from a theoretical perspective and through aesthetic means. Given that debates about the role and value of the arts and humanities are largely circumscribed by policy contexts, it is perhaps
not surprising that the theoretical, critical, and aesthetic resources of arts and humanities are rarely utilized in their defense. However, in tailoring arguments to the policy context, there is a risk of forfeiting some of the intellectual rigor that is needed to think about the issues as scholars. Those in the arts and humanities must draw on these resources if they are to be able to think critically and decisively about whether and how to adopt, adapt, and resist the knowledge economy. Hainge argues that philosophy itself can be affirmed not merely as a discipline but a basic, inherent principle of the university. Drawing on Derrida's notion of forgiveness, Hainge argues that the very conditions of possibility for philosophy, within a techno-economic paradigm, would today seem to depend on its ability to navigate between two poles, one abstract and seemingly universal, the other pragmatic and situated. Further, drawing on Deleuze's work on immanence, Hainge argues that the mode of pragmatic governance of any system is inherent and immanent to it and that to impose an external, knowledge economy governance will simply result in the production of intellectual "waste" and "noise." In his chapter, Loo presents a philosophical inquiry into the ethico-aesthetic "obligation" of the arts and humanities to accommodate technological and economic imperatives. With reference to Deleuze, Guattari, and Agamben, and taking the work of Dutch architect Koolhaas, he argues that it is possible for the arts and humanities to do their ethical and aesthetic work within a techno-economic paradigm. Walker's chapter is an example of this idea. It enacts research as writing, performing an encounter with the difficult textual surface that the arts and humanities run into. In so doing it considers the art of Patricia Piccinini, who works on/with the space between aesthetics and science. Walker's chapter is both a type of writing as research and a discussion of an aesthetic practice that produces a surface on which we can trace the contours of the ethical and epistemological concerns opening out in the knowledge economy.

Third, this book investigates ways in which the arts and humanities can constructively adapt without compromise to knowledge economy imperatives. Anyanwu explores the benefits of transdisciplinary knowledge production. He takes the example of an interdisciplinary research group to argue that the humanities need not be the handmaid of science and technology, and the example of a media studies program to show that, rather than threatening the future of disciplinary knowledge, collaboration with industry partners in education can help achieve the critical mass to preserve it. Likewise, it is Redshaw's case that collaboration with industry should not be understood only in terms of commercialization. She suggests that, in terms of knowledge production, collaboration has the potential to contribute more to the public good than liberal education and uses a successful research project on the cultures of driving to make her case.
Fourth, this book seeks to show how a theoretical critique that problematizes key knowledge economy concepts can be combined with an innovative community engagement and socially produced knowledge. To counter the reductive nature of the knowledge economy, Potter draws on Deleuze and Guattari to propose a "knowledge ecology" and brings this to bear on the work of artist and spatial historian Paul Carter. Luckman challenges the conceptualization of innovation with reference to youth subcultural theory.

Finally, and crucially, this book makes the case that successful positioning of the arts and humanities within the knowledge economy is a task of the research endeavor itself. Concentrating on the creative industries, Jeffcutt explores the problems and opportunities created within the complex field concerned with creativity in knowledge economies and focuses on the dynamics of connectivity.

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