INTRODUCTION: NEW ZEALAND, NEO-LIBERALISM AND THE KNOWLEDGE ECONOMY

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It is now fashionable to claim that economic progress depends upon knowledge and the utilisation of knowledge -- the so-called "knowledge economy". Yet economic progress and expansion has always depended on new ideas and innovation. Indeed, it was Francis Bacon who first suggested "knowledge is power". What has changed, perhaps, is that knowledge is now recognised as being at least as important as capital (physical and financial) and natural resources as a source of economic growth. In short, knowledge is now regarded as a national economic asset and the basis of national competitive advantage.

The officially received view on the knowledge economy -- the view that emanates from the quasi-world policy institutions like the World Bank and OECD -- tends to emphasise two long term trends that support the shift to a global knowledge economy. Globalization, as "world economic integration", indicates that economic activity can be undertaken without being constrained by international borders. Developments in communications technologies have resulted in the falling cost and rising efficiency in the transmission, retrieval and analysis of information. On this basis knowledge in the global economy is used as both an input and an output.

It is claimed that knowledge use and, in particular the ability to innovate has become a national determinant of wealth and the basis of comparative advantage. On this view knowledge is the fundamental means to improving the efficiency of production and distribution processes, improving the quality and quantity of products, and increasing the choice of products and services for consumers and producers. National policies for encouraging knowledge generation, knowledge acquisition, knowledge diffusion, and the exploitation of knowledge have become the most pressing priorities in the science, research and education policy regimes. The emphasis accordingly has focussed upon the twin strategies of developing the appropriate knowledge infrastructures, including reform of knowledge institutions, together with a strong focus on so-called "human resources" or "human capital" that is, people who know how to learn and who continue learning by upgrading existing skills and acquiring new skills. The knowledge economy is seen to demand skills that are broad and highly transferable such as problem solving and the ability to learn. Knowledge workers are now encouraged to continuously upgrade and broaden their skills, through formal education as well as through learning in the workplace and in less formal surroundings. Firms are encouraged to turn themselves into "learning organisations" which can harness the synergies of human capital in the form of teams, and to avail themselves of the new techniques of knowledge management. As part of this they are now being offered incentives to develop research into such areas of their businesses.

In order to pursue these twin strategies governments are informed that they must be prepared to build the knowledge infrastructure by investing heavily in transportation, education and telecommunications infrastructure. More and more the principles of

rational science planning demand investments in national research facilities and in the higher education sector, alongside broad policies to encourage private investment in human capital development such as education, training and apprenticeship.

These ideas have a home in a set of discourses that began to emerge after World War II, when planners looked to modernization policies both in advanced liberal societies and in Third World countries. Then, and until recently, it was assumed that there was only one path to development – which based upon the history of the industrial West. This Western model of development imposed a set of conditions on satellites and on Third World countries that attempted to replicate historical stages that closely approximated an assumed Western developmental history. The Western development model only recently gave way under the experience of the newly industrializing countries and the experience of the so-called Asian "tiger" economies to the understanding that there might be other possible paths to development and that culture plays a very large role in development.

At a more technical level, one could argue that the discourses out of which the knowledge economy has grown have three separate strands. The discipline of economics accounts for two strands: the economics of information (IE), on the one hand, and the economics of knowledge and education, on the other. Each of the two strands can be subdivided further. As Richard Mattessich writes:

> The two pioneers of IE are Jacob Marschak (e.g., 1954, 1964, 1974; also his work co-authored with Miyasawa, 1968; and, with Radner, 1972), who made decisive contributions to what he called the "economics of information," and George Stigler (1961, 1962), who received the 1982 Nobel Memorial Prize for his seminal work in the "economic theory of information" (together with his theory of public regulation). Another pioneer, Fritz Machlup (e.g., 1962, 1980, 1982, 1984), laid the groundwork and elaborated on what has become the "economics of the production and distribution of knowledge" ... (Mattessich, 1993: XX).

Mattessich explains that in contrast to information economics, much of which is analytical and highly mathematical, the economics of knowledge and education is predominantly empirical and often descriptive. It tends to explore the economic aspects of the production and distribution of knowledge rather than dealing "merely" with information.

The other major strand, which stands, in part, as critique of the economic strand, is sociological and focuses upon the sociology of knowledge and education, two fields that have provided grand theories concerning the place of knowledge and education in the modern world. Nico Stehr, for instance, traces the concept of the "knowledge society" to Robert E Lane's (1966) "knowledgeable society", Peter Drucker's (1969) *The Age of Discontinuity* and Daniel Bell's (1973) *Post-Industrial Society*. He chooses to label the now emerging form of society as a knowledge society because "the constitutive mechanism or the identity of modern society is increasingly driven by 'knowledge'" (Stehr, 1994: 6) and he maintains that "'knowledge' ... challenges as well as transforms property and labor as the constitutive mechanisms of society" (ibid. 7).

But changing conceptions of knowledge have also challenged traditional liberal education and its educational institutions and practices. As Lyotard (1984) notes knowledge has been transformed. It is useful knowledge, that is knowledge which can be utilised, sold and further transformed to be sold on again that underlies the knowledge economy, and not the pure and rarified knowledge of Plato or Kantian thought. Furthermore these new accounts of knowledge have undermined the traditional meta-narratives that have legitimated education. Ideals such as an educated and elite leadership (Plato) or of the educated person (R. S. Peters) have fallen by the wayside in the combined march of both efficiency and useful knowledge or as Lytotard coins it *performativity*.

In *Knowledge Societies*, Nico Stehr (1994) writes:

> There should be a new agenda for social science today because the age of labor and property is at an end. Nonetheless, modern society is still widely conceived in terms of property and labor. Labor and property have an extended and close association in social, political and economic theory and reality. In practice, individuals are forced to define their identities on the basis of their relation to these factors. However, as labor and property (capital) gradually gave way to a new constitutive factor, namely knowledge, older struggles and contests, centered for instance on the ownership of the means of production, also make room for rising sentiments of disaffection with beliefs and values once associated with labor and property and ultimately result in very different moral, political and economic debates and conflicts (p. iix).

Stehr claims that "Knowledge actually undermines order. Power is not always enhanced by knowledge. On the contrary, power is often rendered obsolete by knowledge. Knowledge may empower the powerless by upsetting the existing balances of power" (Stehr, 1994: ix).

But this is to appeal to traditional liberal accounts of the relationships between power and knowledge. There are (at least) two accounts in traditional liberal theory which Stehr has invoked in this quotation. First there is the view that knowledge overcomes existing power relationships to establish new relationships of power: second there is the view that power determines what knowledge is, or what knowledge is important. In both cases power and knowledge are separate and dissociated and brought together in a contingent relationship at best. But these are traditional views of the nature of knowledge and whilst Stehr is attempting to capture a new relationship between power and knowledge -- because knowledge has changed -- he remains mired in the older traditional conceptions of knowledge and power.

In bringing power and knowledge together in his concept of "power/knowledge" the French philosopher historian Michel Foucault provides a way forward which provides a better understanding of both power and knowledge if we are to understand the knowledge society. Foucault argued (1980, et passim) that power and knowledge are not identical but that they are closely intertwined so that wherever there is knowledge there is also power and vice versa. For him power is not owned, is not necessarily repressive (it can have pleasure as it effect), is not top down and exists at the micro level, *nominalistically*, in what we would normally call an exercise of power. Power *produces* truth as an effect: "...we are forced to produce the truth of power that

society demands, of which it has need in order to function… we must produce truth as we must produce wealth" (Foucault, 1977: 93). But these true discourses, which are the effects of power, in turn produce power as their effects so that "…we are destined to a certain mode of living or dying, as a function of the true discourses…" (ibid.).

It is the "true" discourses surrounding and penetrating the knowledge society that will produce through their power effects the useful knowledge that is demanded by power. Thus power is deeply imbricated in these new discourse of performativity and the knowledge society. The understanding afforded by Foucault's account unmasks the underlying power of such discourse whereas in the traditional concepts of "power" and knowledge (where they are conceived as different, separate and distinct) power is masked or occluded. Also occluded is the effect of such power upon our notions of the self (see Marshall, this volume).

Nevertheless Stehr provides the following standard and useful sociological analysis of the "knowledge society". The advance of science into the life-world and economic production may be described in various terms, as:

- the penetration of most spheres of social action, including production, by scientific knowledge ("scientization");
- the displacement, although by no means the elimination, of other forms of knowledge by scientific knowledge, mediated by the growing stratum of and dependence on experts, advisers and counselors, and the corresponding institutions based on the deployment of specialized knowledge;
- the emergence of science as an immediately productive force;
- the differentiation of new forms of political action (e.g., science and education policy);
- the development of a new sector of production (the production of knowledge);
- the change of power structures (technocracy debate);
- the emergence of knowledge as the basis for social inequality and social solidarity;
- the trend to base authority on expertise;
- the shift in the nature of societal conflict from struggles about the allocation of income and divisions in property relations to claims and conflicts about generalized human needs (Stehr, 1994: 10-11)

Max Weber was among the first sociologists to understand modernity in terms of the centuries old process by which science, art and morality gradually established themselves as separate value spheres that operated according to their own inner logics. He also drew attention through the metaphor of the "iron cage" of an instrumental rationality that had come to dominate the West. Both his account and that offered by the philosopher Martin Heidegger, who focussed on the meaning of Being in relation to the question concerning technology, provided important sources of inspiration for critical accounts of science and technology developed by the Frankfurt Institute theorists Max Horkheimer and Theodor Adorno, who focused particularly on the notion of instrumental reason. Jürgen Habermas has followed their lead, and in a very different though related way, so has Michel Foucault, especially with his talk of "technologies of self".

It is timely to remind ourselves of these accounts when we come to contemplate neo-liberalism as a *new metanarrative of development* based on the notion of the knowledge economy. As we have demonstrated briefly above, this paradigm of world development is based upon developments in the economics of information, knowledge and education, much of which flowed directly out of the so-called "Chicago school". This narrow instrumental version that we can call American neo-liberalism is supported by a theory of "free trade", by a notion of unlimited growth with few ecological restraints, and by a notion of globalisation as world economic integration that flies in the face global realities and first world responsibilities. Clearly, globalisation is used as a synonym for world economic integration we must remind ourselves that the use of the concept does not take sufficient cognizance of developing worlds. The first world of the G7 and favoured others, including nations belonging to groups such as the OECD, comprise the world of world economic integration. This is the "world" within which cross-border alliances, mergers, and takeovers occur – the home "world" of multinational capital. By comparison, the second world of the breakaway ex-communist satellites and Russia on the whole are struggling against a range of related problems, including: inflation, currency crisis, huge balance of payments problems, the black economy, the dominance of economic mafia and so on. The third world can no longer be homogenised in the way development economics previously portrayed it; it consists of "newly industrialised countries" (including the rapidly developing nations of China and India which are gearing up for C & IT), the Asian "tiger" economies, the smaller dependent countries and island states. Often world economic integration has meant simply the re-articulation of heavy polluting and consumer first world industries to Third World countries to take advantages of environmental deregulation or cheap labour rates. Africa, the forgotten continent -- with a few exceptions -- constitutes a fourth world, riven with on-going civil and tribal wars (fuelled by the first world arms industry), a recent series of natural climactic disasters, deteriorating national infrastructures, a massive AIDS epidemic and the persistence of many other preventable diseases. Even this simplistic division does not do justice to the complexity of worlds that belie "world economic integration". It does not take account of the Middle East or of Islamicisation or the consortia of the oil-producing countries. Only a very detailed analysis of world trading patterns, including the political stakes involved in regional trade and investment agreement, might yield a clearer picture, but it does emphasise the hollowness of a model of the global knowledge economy that assumes a kind of economic and political one-dimensional uniformity.

Our argument is that there are more benign versions of the "knowledge economy". We shall briefly indicate here what we mean by "benign".

First, we mean a version more guarded concerning neoliberal fabrications of globalisation with clearer analyses of the consequences of the free flow of capital and its effect on small countries like New Zealand. A more "responsible" version might emphasise here the need for greater national monitoring and regulation of world capital flows.

Second, we mean a version that makes the important distinction between "knowledge economy" and "knowledge society", thus emphasising social and cultural conditions of the knowledge economy and the new citizenship rights associated with information, knowledge and education. The new citizenship rights certainly include:

"freedom of information", a right that is significantly curtailed under the clause of commercial sensitivity, but also, "freedom of knowledge" and "freedom to education"– rights now often jeopardized by a commodification of knowledge and education that lead to the institutionising of intellectual property rights.

Third, an emphasis on indigenous cultures and the often deleterious effects of globalisation upon indigenous cultures and economies. The Labour-led coalition has made much of respecting minority groups and cultures and closing the gaps between pakeha and Maori. They made appointments to Cabinet which were designed to show their commitment to effecting policies that would "close the gaps". However, a year into their administration and after a series of political scandals directed at leading Maori politicians there is no sign of the promised results of these policies. Nor is it clear that their social planning is more respectful of local cultural knowledge. Pita Sharples, the distinguished Maori educator, in commenting recently on National Radio to a question on closing the gap said somewhat wryly that Maori were to undergo yet another form of colonization. This time from the bureaucrats in Wellington! Nor have they or their predecessors come to terms with indigenous people over the vexed notions of technology (see Marshall, 2000).

Fourth, we mean a version that emphasises the crucial role that the non-sciences and "soft sciences" can play in relation to the knowledge economy. The present notion seems to accept without question that the government emphasis should be on "science" and "engineering" – a purely instrumental version that does not recognise that many of the new developments supporting the knowledge economy are significantly *language-based*: developments in telematics, informatics, new computer languages and algorithms, and so on. In other words, there is an insufficient understanding of the way in which knowledge becomes part of knowledge systems and how, in turn, knowledge systems become operationalised. Developments in the humanities, social sciences, and creative arts ("soft technologies") are an essential part of the knowledge economy -- a fact that instrumentalist, "scientistic" versions ignore.

Fifth, the present notion of the "knowledge economy", first promulgated under the previous National-led government seems to be accepted by the present Labour-led government. There has been no real attempt to "indigenised" this concept or to mark it as a Labour conception – one that, for instance, focuses clearly upon "knowledge workers" not purely as human capital but as members of "knowledge institutions", that can operate differently from traditional "bureaucratic" models. There has been no attempt by Labour to distinguish the notion of the knowledge economy as their own or to suggest how the concept looks different from the perspective of a small, dependent, still largely primary-based, economy.

The Labour-led coalition which gained control of the Treasury Benches in November 1999 has yet to provide a view that distinguishes their view of governance from the previous National administration. Indeed it can be fairly said that it was the 4th Labour Government of 1984-90 that instituted the general neo-liberal framework and, indeed instituted some of the changes, demanded by neo-liberal voices in Treasury and State Services Commission and endorsed by many Labour politicians, including Prime Minister Lange. Also they have yet to provide a concept of the knowledge economy that distinguishes the concept from neo-liberal versions (and the concept of

the knowledge society). In particular and with a rhetoric of promising to close the gaps for the indigenous people they have done little to indigenise the concepts of the knowledge economy and the knowledge society.

This edition comprises three sections written by Mark Olssen, Michael Peters and Jim Marshall, and is presented in that order. Each, over the last decade or so, has written extensively and critically on the post 1998/9 reforms in the New Zealand education system, on such topics as neo-liberalism and its effects on New Zealand education, and on the thrust of successive governments towards the knowledge economy and society. Here they have to taken the opportunity to present their more recent views on these topics, though they build upon their earlier works and sometimes utilise them.

In Section 1 Olssen, in a wide and encompassing paper entitled 'The Neo-liberal Appropriation of Tertiary Education Policy', first distinguishes modern neo-liberalism from classical liberalism, before introducing a Foucauldean approach to problematising neo-liberalism in terms of Foucault's later writings on *governmentality* and *power* effects. This provides an introduction to the next section on 20th. Century Neo-liberalism. There Olssen tracks modern neo-liberalism from the writings of Hayek and the Chicago "school" identifying their differences from classical economic theorists. He argues that these new economic or monetarist policies were introduced into government policies in the 1960s and 1970s. This is followed by lucid discussions of Human Capital Theory, Public Choice Theory, Agency Theory, and Transaction Cost Economics, before he turns to the impact of these theories into government's economic policies upon education in general -- its MacDonaldisation -- and its impact on tertiary education.

After tracking through the earlier reports he turns to the Green Paper (1997) and the White Paper (1998) on reframing tertiary education. He covers such issues as increased centralised control, research, quality assurance, monitoring and accountability and university governance. But in the section, Reorganising the Spaces of Liberalism, he discusses how new forms of neoliberal power systematically reconstruct the "spaces" which were sacrosanct to an older view of a liberal society. This takes us back into classical liberalism and to such thinkers as Mill and de Tocqueville so that he can argue that this new power has compromised the *autonomy* of the universities, eroded academic freedom and de-professionalised university academics.

However, Olssen sees neo-liberalism as a positive, and not merely a destructive form of power. It has been able to reconstruct the state, universities and academics, through a number of technologies and techniques of power, "constituting a new strategy for the nation building project…in a frenzy of competition in the context of the new global order".

In Section 2, and in the first of two papers, Michael Peters looks at the Foresight Project and the Tertiary White Paper. First, he provides an historical account of the development of contemporary science policy and the major shifts that have occurred since the early 1990s. Second, he concentrates, in particular, on the shift to the "knowledge society" with the Ministry of Research, Science and Technology's Foresight Project based upon a version of scenario planning. Third, he examines universities in relation to the knowledge economy, charting the shifts in the

production and legitimation of knowledge. Fourth, he provides an analysis of New Zealand's Tertiary Review with special reference to the reform of the university research function. Finally, he discusses in a concluding note, then, new policy articulations under Max Bradford, as Ministry of Tertiary Education, in the previous national-led coalition.

In the second paper, first, he sketches the importance of three discourses leading to the notion of the knowledge economy and outlines the received economic view of the knowledge economy in terms of a series of characteristics. Second, he discusses two recent national policy constructions of the knowledge economy -- New Zealand and the United Kingdom -- commenting at the same time on implications for education policy. Third, he mentions some criticisms of these constructions and introduces Joseph Stiglitz's notion of knowledge as a global public good. Finally, he lays out some of the tasks of educational policy research in its contribution to the debate.

Jim Marshall looks at the Bright New Futures Policy offered by the National Government in 1999 and implicitly endorsed by the new Labour led coalition. However he draws upon earlier published ideas and a long critique of curriculum matters, including the role of technology in the curriculum, to show how the groundwork has been laid over the years for the frantic rush into the bright new future that is offered in the discourses on the knowledge economy and the "new" knowledge society. In section I, drawing heavily upon the work of the German philosopher, Martin Heidegger, he critiques the notion of "neutral" technology in the curriculum, the effects upon the self of conceiving technology in this manner, and looks at the impact upon Maori of western technology. Section II looks at the introduction of technology as both a subject and as an aid to learning and teaching in the New Zealand curriculum. The argument is that whereas the curriculum makes a place for social and environmental considerations it still conceives technology as neutral. In the long term this will involve changes to the notion of the self for both pakeha and Maori. In Section III he turns explicitly to the Bright Futures Policy of the New Zealand Government (1999), arguing that the "rush" to the knowledge economy and the knowledge society is not a new start at all. This is because there has been a well laid path towards the advent of the knowledge economy going back to at least the 1988/9 Education Acts and the subsequent "reforms" in education.

REFERENCES:

FOUCAULT, Michel (1977) "Two Lectures", reprinted in Colin Gordon (1980) (ed.), *Power?Knowledge: selected interviews and other writings 1972-197.*, New York: Pantheon

LYOTARD, Jean-François (1984) *The Postmodern condition: a report on knowledge.* Manchester: Manchester University Press.

MARSHALL, James D. (2000) "Technology and Indigenous People: the case of Maori". *Educational Philosophy and Theory,* 31(1), 119-131.

MATTESSICH, Richard (1993) "On the nature of information and knowledge and the interpretation in the economic sciences", *Library Trends*, Spring 1993 v41 n4 p567(27)

STEHR, Nico (1994) *Knowledge Societies*, London: Sage Publications.