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CHANGING MODES

New Knowledge Production and Its Implications for Higher Education in South Africa

edited by

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Chapter Five

COMPLEMENTING THE MARKETISATION OF HIGHER EDUCATION: NEW MODES OF KNOWLEDGE PRODUCTION IN COMMUNITY- HIGHER EDUCATION PARTNERSHIPS

George Subotzky

Introduction

The prospect – real or assumed – of emerging new modes of knowledge production has attracted a great deal of recent scholarly attention. Various accounts – notably those of Gibbons *et al.* (1994), Rip (1998, 1999) and Etzkowitz (1998) – of significant shifts in knowledge production over the past two decades or so have generated considerable debate about the nature and implications of these changes for higher education.

In South Africa, as a result of the restructuring of the higher education system, this debate has taken on a particularly strong policy emphasis (Muller, 1995; Cloete *et al.*, 1997; Kraak, 1997; Orr, 1997; Scott, 1997; Mouton, 1998; Ravjee, 1999). Ravjee (1999:18), in providing a review of the literature on the Gibbons thesis and an account of South African responses to it, reminds us that 'while most people would agree that changes in knowledge production are occurring on a global scale', there are several possible interpretations of these changes, of which Gibbons *et al.* provide but one. Gibbons *et al.* (1994) argue that we are currently witnessing the emergence of a new so-called 'Mode 2' pattern of knowledge production. Mode 2 refers to the production and dissemination of knowledge embedded in *application* in the social or market context. This contrasts with the traditional categories of 'basic'

theoretical knowledge production within closed, bounded disciplines and the linear application of this in 'applied' research. Mode 2 knowledge production is discussed more fully below.

However, the Gibbons account has enjoyed special prominence and has been taken up in a relatively uncritical fashion in higher education policy discourse in this country. This has its origin in the coincidence of the publication in 1994 of the Gibbons thesis and the conceptual framing of the work of the National Commission on Higher Education (NCHE). In dealing with the implications of these changes in knowledge production in relation to both the economic *and* social goals of higher education, this paper focuses primarily on the Gibbons account.

More recently, the Gibbons thesis has been approached more critically. Ravjee suggests that responses to Gibbons fall into three broad categories. One set of responses questions the usefulness of the Gibbons thesis in understanding current changes, and posits other explanations (Rip, 1998; Rip & Marais, 1999; Etzkowitz, 1998; see also Rip's contribution to this book). Some critics in this category query whether what Gibbons *et al.* characterise does indeed constitute a paradigmatic shift in knowledge production (Fuller, 1995; Weingart, 1997; Jansen, 1998). While the Mode 1/Mode 2 categorisation provides a useful heuristic device, claims about a major discontinuity are treated sceptically, not least because they underplay the importance of good-quality Mode 1 disciplinary knowledge in underpinning Mode 2 knowledge production (Rip & Marais, 1999; Muller, 1999).

A second set of responses is, according to Ravjee, more cautious in rejecting the Gibbons thesis outright, but seeks more empirical evidence to determine whether such changes are indeed occurring in the ways suggested, especially in the developing country context (Mouton, 1998; Bawa, 1997; Subotzky *et al.*, 1998¹).

¹ A major project has just been operationalised on this subject. This is a collaborative study between the Education Policy Unit at UWC, the Centre for Interdisciplinary Studies at the University of Stellenbosch and the Department of Philosophy of Science and Technology at Twente, involving Dr G. Subotzky, Prof. J. Mouton and Prof. A. Rip as lead researchers respectively. The study focuses on the contribution of higher education to development in South Africa in the context of globalisation. It identifies predominant modes of knowledge production in higher education partnerships, with both industry and communities. This study provides an opportunity to examine empirically the extent to which changes in knowledge production in general, and the Gibbons thesis in particular, are occurring in the South African developing-country context. In the light of insights gained, the study will suggest appropriate forms of research capacity-building which are geared towards changing patterns of

The third set of responses acknowledges that shifts have occurred towards problem-solving, applications-driven knowledge production along the lines suggested by Gibbons *et al.* and regards the challenge that Mode 2 presents to the dominance of current epistemological, organisational and policy practices related to Mode 1 as necessary and healthy. Ravjee (1999) argues that 'embracing different aspects of the notion of Mode 2 knowledge production (and to different degrees), supporters of this view suggest that Mode 2 knowledge production should be encouraged in South Africa'. The main rationale underlying this view, it may be added, is based on the perceived importance of applications-driven science (whether or not this conforms strictly to Gibbons' version of Mode 2) as a more socially *relevant* form of knowledge production. In particular, proponents of this view see Mode 2 as the means by which higher education might contribute more effectively towards reconstruction and development and poverty alleviation in the South African developing-country context (Kraak, 1997; Subotzky, 1998a, 1998b).

It is primarily within the third set of responses that the argument in this paper is placed. The central concern is about how changing patterns of knowledge production can benefit the public good as well as the private interests to which it is currently predominantly oriented. Higher education is increasingly being challenged to be more responsive to societal needs. However, both empirically (within ever strengthening higher education-industry partnerships) and, to a very large extent, theoretically (especially in the account by Gibbons *et al.*), emphasis is overwhelmingly being placed on how higher education contributes to private sector economic development needs in the context of the globalising neo-liberal world order.

This orientation towards the market ethos and private interests characterises the 'entrepreneurialisation' or 'marketisation' of higher education (Slaughter & Leslie, 1997; Tierney, 1997; Dill, 1997) which is marked by intensifying partnerships with high-tech industry, corresponding new organisational forms of knowledge production and an increasingly managerialist mode of institutional governance. This

knowledge production. A pilot capacity-building project will implemented, evaluated and modified where necessary with a view to wider replication. The present paper therefore represents work which is very much in progress.

competitive, market-oriented model, along with the new practices of academic capitalism which underlie it, has become the dominant benchmark of institutional innovation (Clark, 1998). It generates considerable tension with collegial values and democratic institutional governance (Currie & Vidovich, 1998; Polster & Newson, 1998). Despite the growing focus on higher education's civic responsibility and its responsiveness to the public good through community development partnerships, these are far less developed in practice or theorised in the literature. As a result, serving private sector market needs tends to dominate over higher education's concerns with community development, social equity and the public good.

The intention of this paper is to restore this imbalance by focusing on knowledge production in the community partnership model. The main claim is that community partnership programmes are significant in four respects. First, driven by concerns for social equity and community development, this model constitutes a complementary alternative to the seemingly inevitable and ubiquitous drift towards the marketisation of higher education which serves mainly private corporate interests. The paper contends that this model offers an inter-disciplinary organisational and cognitive domain for operationalising the frequently cited but not often implemented higher educational goal of contributing towards the public good through addressing complex social problems.

Second, and of central relevance to this paper, the knowledge produced in the social and community context of application constitutes another form of relevant, socially distributed, problem-solving knowledge production which complements the forms of knowledge production in higher education-industry partnerships that are described by Gibbons and others.

Third, knowledge production in the partnership model provides conducive conditions for the integration and mutual enrichment of experiential learning, socially relevant research and enhanced community development-oriented service. This contrasts directly with the growing fragmentation of teaching and research which is characteristic of most higher education-industry partnerships (Clark, 1997b).

Fourth, in contrast to growing managerialism in the academy, the partnership model provides a more collaborative and participatory decision-making framework, in which the interests and concerns of all participating partners can be mediated.

A few qualifications to the argument must be issued at the outset. As

Ravjee's paper (1999) shows, the Gibbons thesis raises a number of complex and inter-linked questions which have been highlighted in recent critical response. As already indicated, these include: (1) whether Mode 2 knowledge production, in the way characterised by Gibbons, represents a full (or even partial) epistemological paradigm shift; (2) linked to this, whether the relevance claimed by Gibbons for Mode 2 knowledge production in meeting contemporary development needs implies continuity or rupture between disciplinary and trans-disciplinary knowledge production; (3) the implications of this – either way – for teaching, for the curriculum and for quality; (4) the relevance of science and research in relation not only to market-related sector economic development needs, but also to the reconstruction and development of the majority poor; (5) changes in the social organisation of knowledge production; and (6) the policy implications of these various issues for higher education.

Within this range of issues, my principal focus lies on (4) above, namely the *relevance* of changing modes of knowledge production to the public good, and secondarily on (5) and (6), that is the organisational features of new knowledge production which might effectively address community development priorities, and policy implications. It should be borne in mind that I am not concerned here with the epistemological deliberation of whether knowledge production in partnerships conforms strictly to the Gibbons thesis or on its various shortcomings as outlined by Ravjee (1999).

The chapter assumes that shifts in knowledge production have occurred away from traditional disciplinary boundaries, as broadly described by Rip (1998, and in this book) as 'strategic science' and by Gibbons *et al.* (1994) as Mode 2 knowledge production. The main focus is on how new knowledge production in higher education contributes not only towards the private good, but also towards the public good and the development needs of the majority poor, thus fulfilling its broader social purpose and offsetting the negative impact of the marketisation of higher education within the rapidly globalising environment.

In pursuing this line, it is important to stress that the higher education-community partnership model is proposed as a *complementary* alternative, and not simply as a dichotomous ideologically-driven opposition to serving private sector market needs. It is acknowledged that, along with higher education's other functions of teaching (both formative and job-oriented), curiosity-driven research and community

service, meeting the demands of the market is part of its greater responsiveness to societal needs. Indeed, the notions of the 'market' and 'clients' served by higher education must be broadly construed. Addressing public sector community needs constitutes as much of a market for higher education through the provision (and even selling) of knowledge services, as does the meeting of private sector needs. However, a clear distinction lies between serving private sector needs and interests (and the increasingly managerialist practices and competitive climate which accompany this in the new globalising world order) and serving public sector needs and interests through community development (accompanied by participatory governance and research). Having said this, it is clearly not possible to neatly separate the public and private good. Fostering the latter has obvious benefits for the former, and vice-versa.

Furthermore, promoting the community partnership model does not imply crudely championing equity over efficiency. The notions of 'entrepreneurship' and 'entrepreneurialism' should therefore be distinguished. The first refers to efficient and innovative financial management measures such as cost reduction and diversified sources of income including the marketing, where appropriate, of academic services to both private and public clients. This is not necessarily in conflict with social concerns and democratic practices. Indeed, good management and income generation are prerequisites to provide the material means to achieve democratic goals. The second refers to the dominance of private sector market interests, discourse and managerial practices which tend to focus exclusively on high-tech economic development and thereby to marginalise democratic values and practices.

Finally, the notion of marketisation or entrepreneurialisation does not refer to an institutional *type*, but rather to an institutional *function*. Despite the emergence of what has been dubbed the 'entrepreneurial' or 'market' university as the current benchmark of innovative competitive practice, actual institutional functions are, of course, spread across a spectrum of activities ranging from teaching, 'blue-sky' research, community outreach and knowledge production oriented towards social as well as economic development. Both the private market and community-oriented functions of higher education constitute normative goals of relevance as well as actual practices: the former within the dominant competitive globalisation discourse and the latter within the growing concern for civic responsibility within the academy.

This chapter, then, is work in progress which draws from the literature, as well as some pilot interviews conducted in preparation for the larger study mentioned earlier of knowledge production in higher education institutions partnerships in South Africa. Indeed, in addressing the social relevance of science, a key issue is to determine, in Weingart's (1997:592) terms, whether new modes of knowledge production are 'as much notions motivated by ideas of a politically "more correct" science as they are descriptions of [the] actual changes [characterised by Gibbons]'. The case studies in the study provide an ideal opportunity to clarify whether the notion of more relevant knowledge production in South African higher education is merely a normative policy goal or is actually occurring in practice.

In this chapter, I first outline the notion of globalisation and identify some of the tensions underlying it in relation to social equity and basic development priorities. I then trace the emerging marketisation of higher education, briefly characterising the Gibbons thesis and highlighting important aspects for the developing country context. Focusing on the South African case, I go on to discuss how the tensions underlying globalisation are replicated both within macroeconomic policy and emerging higher education policy. Drawing from case studies, I then show that the community partnership model and, as part of this, community service learning, provide a complementary alternative to the marketisation of higher education.

Globalisation and its ideological underpinnings

While in some ways not a new phenomenon, the current process of intensified socio-economic and cultural linkages characterised as globalisation is distinguished in its contemporary form by its scale, scope and complexity.

Globalisation manifests in distinct but related economic, cultural, discursive, symbolic and ideological dimensions. Markers of the process include: the growth in world financial markets (in which the foreign exchange market had by 1992 become 60 times larger than world trade); the dawn of the 'electronic age' and 'information society' and all related information technologies; the downfall of the Soviet Union and the ascendancy of neo-liberal market discourse and practice as a dominant

world socio-economic and cultural paradigm.

Tehrani (in Currie & Subotzky, 1999) succinctly characterises the phenomenon of globalisation, identifying its negative and positive consequences as follows:

Globalisation is a process that has been going on for the past 5000 years, but it has significantly accelerated since the demise of the Soviet Union in 1991. Elements of globalisation include transborder capital, labor, management, news, images, and data flows. The main engines of globalisation are the transnational corporations (TNCs), transnational media organisations (TMCs), intergovernmental organisations (IGOs), non-governmental organisations (NGOs), and alternative government organisations (AGOs). From a humanist perspective, globalisation entails both positive and negative consequences: it is both narrowing and widening the income gaps among and within nations, intensifying and diminishing political domination, and homogenising and pluralising cultural identities.

Considering the impact of globalisation on higher education necessitates identifying the main ideological currents and the growing internal contradictions which underlie it.

Globalisation, in its ideological dimension, can be interpreted as the outcome of doctrines aimed at serving the hegemonic interests of world capitalism (Smyth, 1995; Chomsky, 1997; Kraak, 1997; Orr, 1997). In accordance with neo-liberal prescriptions, structural adjustment programmes are (more or less coercively) encouraged in order to create conditions conducive to unregulated trade, the free flow of capital, speculative short-term investments, the repatriation of profits and unfettered access to new markets. Neo-liberal monetarist doctrines advocate reducing state control of the economy, restraining state spending including welfare, and the pursuit of export-led policies. Deviation from following these injunctions purportedly leads to reduced competitiveness in the global market, to perceived obstacles to foreign investment and to negative sentiment in this regard.

The end of the Cold War was claimed as a distinct ideological victory for the neo-liberal world order. Counter to this, critical concern for the effects of globalisation on equity, social and financial stability and the environment is growing (see Mander & Goldsmith, 1996; Martin &

Schumann, 1997). Critics argue that, in favouring the minority rich in both the north and south, globalisation has widened the wealth gap. Through the integration of consumer markets, the process of globalisation has created new inequalities, subordinated the interests and rights of peripheral consumers and has threatened environmental conditions, especially in developing countries.

The increasing determination of national economic policy by transnational corporations has diminished national sovereignty (Smyth, 1995). Structural adjustment programmes, in creating conditions which maximise TNC profits and short-term investment returns, are in direct tension with policies aimed at the redistribution of wealth and opportunity and at meeting basic domestic needs in developing countries (Chomsky, 1997). TNCs are, by their very nature, autonomous of national and supra-national regulatory bodies and accountable to no one but their own shareholders. The vast global capital flows which characterise current short-term speculative investment trends have severely damaged national short- and long-term interests. The recent turmoil in global financial market, which had such deleterious effects on emerging economies including South Africa, bears testimony to the vulnerability of developing countries to the effects of hostile and manipulative short-term currency speculation.

The notion of the free market itself can be seen as something of a myth (Chomsky, 1997; Marais, 1998). Rapid and prosperous economic development – for example, until recently in the East Asian emerging economies – occurred precisely where the orthodoxy of neo-liberal market principles was subverted, where the state controlled capital flight and assured greater equity, and where some form of protectionism was retained.

Significantly, in response to recent turmoil in world financial markets, mainstream neo-liberal economists (Sachs, 1998; Fischer, 1998) have called for a fundamental review of the global financial system and have proposed some form of regulation of the large capital flows which have been so damaging to emerging economies. Implicit in this call are crucial shifts in attitudes among establishment figures which would have been unthinkable two years ago: that a liberalised and deregulated world economic system does not spell unparalleled global prosperity (Marais, 1998); that this flawed 'free' market mechanism favours the minority rich to the vast detriment of the majority poor; and that growing the global interdependence which is the consequence of globalisation renders

everyone vulnerable to market fluctuations resulting from short-term speculation.

Similarly, the seemingly sacred orthodoxy of World Bank doctrines has been recently critically reviewed from within by its former chief economist, Joseph Stiglitz, who called for an end to the 'misguided' debt relief policies of the IMF and the World Bank. He has argued that 'policies which underlay the Washington Consensus are neither necessary nor sufficient, either for macro-stability or longer term development' (Stiglitz, as quoted in Hanlon, 1998). The goal, he states, is equitable development 'which ensures that all groups in society enjoy the fruits of development, not just the few at the top. And we seek democratic development'. Stiglitz concedes that 'markets are not automatically better' and that 'the dogma of liberalism has become an end in itself and not a means to a better financial system'.

It is important to note that these global developments do not manifest uniformly in different contexts and that, consequently, they are mediated by local and national conditions (Wolpe, 1995). Similarly, Henry *et al.* (1997:68) argue that 'there is no essential determinacy to the ways in which globalisation processes work, since for various globalisation pressures there are also sites of resistance and counter movements'. Following this, in considering complementary alternatives to globalisation, we must seek not only to identify commonalities across national boundaries, but also ways in which particular local contexts and strategic south-south alliances between them might provide the opportunity to critically engage with the forces of globalisation and, through the identification of its internal contradictions, resist and mediate its negative impacts.

The marketisation of higher education

Within these global trends, universities are functioning increasingly as 'entrepreneurial' or 'market' institutions (Dill, 1997; Orr, 1997; Slaughter & Leslie, 1997; Tierney, 1997; Clark, 1998). The marketisation of higher education is characterised by closer partnerships with outside 'clients' and other knowledge producers, by a greater onus on faculty to access external sources of funding and by a managerialist ethos in institutional governance, leadership and planning. Against the

backdrop of globalising markets and discourse, institutions are operating increasingly as market-like organisations engaging in 'academic capitalism' (Slaughter & Leslie, 1997). Institutions are strategically positioning themselves to flourish in the increasingly competitive environment and constrained fiscal conditions created by new state policies regulating higher education. To this end, they are exploring new entrepreneurial activities and implementing internal organisational and managerial arrangements to support this. Universities are appointing 'knowledge workers' or 'entrepreneurial scientists'. These developments are being widely interpreted as a new normative yardstick of institutional innovation (Clark 1997a, 1998; Gibbons, 1998).

Market pressures are also shifting epistemological boundaries and other academic practices, and are altering the nature of academic work (Currie & Newson, 1998). Under these prevailing market conditions, knowledge is being reconceptualised so as to value entrepreneurial research, especially that on the leading edge of science and technology and innovation, more highly than non-marketable knowledge (Slaughter & Leslie, 1997). Conventional norms of academic freedom, critical reflection, peer-review evaluation, rewards and curiosity-driven research are therefore in tension with income-generating market-like activities. Merit, and hence rewards, are increasingly being interpreted in terms of entrepreneurial activities. Recent research suggests that as a result of managerialism, academics feel excluded from decision-making and perceive that the academic function of the university has been subordinated to managerial imperatives (Currie & Vidovich, 1998). The devolution of budget responsibility to operating unit level is threatening the concept of the university as a community in which individuals are primarily oriented towards the greater good of the organisation (Currie & Vidovich, 1998). Undergraduate education in public USA research universities has declined as a result of the reduction of block grants, which are being expended more in market-oriented activities. Consequently, teaching and research are increasingly detached (Clark, 1997b).

The impact of globalisation on higher education is thus characterised by three levels of marketisation: (a) epistemological and organisational changes towards applications-driven forms of knowledge production and dissemination; (b) through this, the serving of societal needs, with the dominant emphasis on meeting the interests and needs of the private sector market; and (c) changes in institutional management style towards

managerialism and market-like income generation.

As the first set of changes relates to the shift towards what Gibbons *et al.* have described as Mode 2 knowledge production through (mainly business-university) research partnerships, I now turn to look at the Gibbons thesis in more detail and to track some implications of this for higher education, particularly in the developing country context. This provides a useful point of departure for the purposes of this paper in identifying the alternative to the entrepreneurialisation of the university. As the Gibbons thesis is widely known, I focus only on those elements which are relevant to my main claim, that knowledge production in community partnership schemes constitutes (potentially at least) applications-driven, socially-relevant research which complements private sector market-oriented knowledge production. In so doing, three problematic aspects of the Gibbons thesis are identified: fuzziness about the continuity between Mode 1 and Mode 2 knowledge; the ongoing emphasis on high-tech economic (and hence private sector market) forms of Mode 2 knowledge production, despite addressing developing country contexts; the absence of a political and power discourse in characterising Mode 2 knowledge production.

The Gibbons thesis: new forms of knowledge production and its impact on higher education

Gibbons *et al.* (1994) argue that we are witnessing a fundamental shift from what they term 'Mode 1' to 'Mode 2' forms of knowledge production. In his most recent exposition and elaboration of this thesis, Gibbons (1998) identifies the relevance of higher education in the 21st century in terms of the imperative to adapt and respond organisationally to these new modes of knowledge production.

Gibbons defines the contemporary relevance of higher education explicitly in terms of these changes in knowledge production. He argues that universities are currently largely organised in accordance with the structures of disciplinary science, referred to as Mode 1. Gibbons characterises the emerging new mode of knowledge production as Mode 2, that is, knowledge which is produced in the context of application (Gibbons *et al.*, 1994; Gibbons, 1998). The main attributes of Mode 2 knowledge production are its trans-disciplinarity, its heterogeneity and

organisational diversity, the heightened social accountability and reflexivity which accompanies it, and new forms of quality control which emanate from it.

Gibbons argues that during the past two decades, a 'new economically-oriented paradigm of the function of higher education in society has gradually emerged' (Gibbons, 1998:1). The high-minded Humboldtian pursuit of knowledge for its own sake has been supplanted by the view that universities 'are meant to serve society, primarily by supporting the economy and promoting the quality of life of its citizens' (Gibbons, 1998:1). In this perspective, the critical function of universities has been replaced by a more pragmatic role of providing qualified personpower and the production of *relevant* knowledge.

The organisational development of the modern university arose from the process of disciplinary specialisation and sub-specialisation of knowledge. Increasingly, as a result of Mode 2 knowledge production, faculties and departments have become organisational and administrative units rather than intellectual categories. The conduct of research in the context of application as well as its distributed nature means that contemporary science cannot remain within the confines of university departments or academic centres. This is prompting the emergence of a host of new institutional arrangements, linking government, industry, universities and private consultancy groups in different ways. The real academic unit has become the programme, research unit or – in its more mobile and quintessentially Mode 2 form – the rapidly assembled and transient research team.

Significantly for my purposes, Gibbons highlights the importance of partnerships, interaction and collaboration in knowledge production. Given the nature of Mode 2 knowledge production, universities which 'intend to practice research at the forefront of many areas are going to have to organise themselves ... to become more open, porous institutions, more aggressive in seeking partnerships and alliances, than they are currently' (Gibbons, 1998:10). The best universities are those which display – as part of their core values and missions – adaptive responses, partnerships, interaction with other knowledge producers, and lifelong learning. They will have to adjust from being adept *producers* of (mainly disciplinary) knowledge to being creative *reconfigurers* of knowledge in solving increasingly complex problems. The new 'dynamics of relevance' for higher education and its contemporary cognitive landscape are being moulded by two processes. These are the massification of higher

education and the impact of globalisation and international competitiveness.

Gibbons drives home the point that universities are 'now only one knowledge producing agency amongst many in an economic order where knowledge and skill are the principal commodities being traded' (Gibbons, 1998:30). In order to remain relevant, they will have to adapt themselves to play a collaborative role within a larger, more complex environment. The massification of higher education and the diffusion of research-trained graduates have increased the number of potential research sites outside the academy. Coupled with the growing needs of the knowledge society, this leads to the core of Gibbons' thesis that 'the parallel expansion in the numbers of potential knowledge producers on the supply side and the expansion of the requirement of specialist knowledge on the demand side are creating the conditions for the emergence of a new mode of knowledge production' (Gibbons, 1998:33).

In this context, universities are likely to incorporate within their stated missions the commitment to relevant knowledge production and will increasingly reflect this in their organisational structure and resource allocations. It is my central contention that, to fulfil the responsibility with which Gibbons (and, as we shall see, South Africa's recently formulated higher education policy goals) charges higher education – namely, that it must serve society through fostering economic development *and* promoting the quality of life of all its citizens – this commitment to *relevant* knowledge production can and should be directed, not only towards collaborative partnerships with business in the interests of mainly private sector economic development, but also towards partnerships aimed at community development.

Gibbons highlights the tension between the tradition of university-based research (and we may add, research oriented to community development) and the threatening encroachment of industry and the mentality and values of profit-making (Gibbons, 1998:13). The process of contributing specialist knowledge as part of the innovation chain draws universities deeply into the competitive arena. With the intensification of international competition, Gibbons argues that 'the extraction of economic benefit from university research ... is now a matter of concern' (Gibbons, 1998:30). This transformation is far-reaching because it draws the universities 'into the heart of the commercial process'.

argues, is that they are locked into a disciplinary-based mode of knowledge production, they are capital dependent, and oriented towards problems which are relatively context free (Gibbons, 1998:53). Nonetheless, he refers to several examples of models from developing countries, arguing that these are evident in many different areas of research. These examples share similarities with the cases of community development partnerships which are discussed below. The key issue is that 'these initial experiments are forerunners of future models, and that many more of them will be needed to cope with the complexity of local environments and the needs of local communities' (Gibbons, 1998:54). The initial findings of my research concur with this. As we shall see, this is evidenced in the growing number of applications-driven community-oriented programmes in South Africa's historically black universities and increasingly in historically white universities as well. Many community service programmes – especially at previously conservative and racially divided Afrikaans institutions which are strategically positioning themselves within the new increasingly accountable and competitive higher education planning and policy framework – signal a growing emphasis on orienting teaching and research towards meeting locally-contextualised problems. These were initially the preserve of historically black universities which, like the historically black universities and colleges in the USA, tended to express a closer historical commitment to uplifting disadvantaged communities.

Gibbons argues that the challenge and great opportunity for universities of the developing world is to

... use their Mode 1 resources to extend their capabilities by means of programmes of collaboration in which the sharing of resources is central. This effort at extension will draw these universities into the distributed knowledge production system, focus their attention on the needs of their communities, direct their efforts to the understanding of local and national complex systems, and, in the end, create a new culture of teaching and research – with *relevance* built in! If science will not help to solve the problems that the developing countries face, then maybe research should be given a chance (Gibbons, 1998:55, emphasis added).

It is for these reasons that South African analysts recognised the potential of a Mode 2 orientation to improve the effectiveness of programmes

directed towards national development goals (Kraak & Watters, 1995; Kraak, 1997; Subotzky, 1998a, 1998b). However, as I have argued elsewhere (Subotzky, 1997), the ability of historically disadvantaged institutions in South Africa to meet these demands implies a fundamental improvement in institutional teaching and research quality, capacity and infrastructure.

Despite these indications, Gibbons' account remains confusingly ambiguous about the relation between Mode 1 and Mode 2. In certain formulations, as in the first quotation above, he contends clearly that Mode 2 does not supplant Mode 1, but rather co-exists with it. However, the general drift of his argument assumes the increasing future dominance of Mode 2, which – in the absence of any sustained qualifications to this – suggests that Mode 2 will eventually supplant Mode 1 because the latter is not developmentally relevant. Gibbons thus assumes a 'replacement' rather than a more sensible 'adjunct' theory (Muller, 1999). According to Muller, this approach is problematic as it downplays the complexity of the relationship between disciplinary and applications-driven knowledge both in the acquisition of knowledge and in problem-solving. For Muller, Mode 1 provides the necessary disciplinary substructure upon which quality inter- and trans-disciplinary knowledge acquisition and production can occur. Consequently, in Muller's view, the optimism attached by Gibbons to the problem-solving curriculum and related outcomes-based core competencies in meeting developing country needs is unwarranted and even potentially damaging if detached from the required sound Mode 1 foundation.

In the light of these concerns, the key challenge for the developing country university is how to build simultaneously the required strengths in both Mode 1 disciplinary knowledge and Mode 2 type interdisciplinary core skills in order to serve the needs of developing societies. Addressing this issue in relation to both the curriculum and knowledge production requirements is, in turn, premised on a nuanced understanding of precisely what *mix* of specific disciplinary knowledge and generic problem-solving skills is required in the context of application of graduates and researchers in developing countries. The emphasis on *mix* is important to avoid a crude polarisation. Likewise, acknowledging the necessity of good quality Mode 1 does not imply supporting the detached ivory tower pursuit of knowledge for its own sake. Relevance is an important consideration. The unavoidable point is, however, that the value of problem-oriented curricula in terms of its 'built-in relevance' can

only be realised if (reasonable) quality is assured.

By his own admission, the Mode 1/Mode 2 distinction is regarded by Gibbons as a heuristic device to spur debate on the changing nature of knowledge production. Despite this, Gibbons' account does not satisfactorily highlight the need for both relevance and quality.

Despite highlighting the possible contribution of higher education institutions in developing countries to community development and the public good through Mode 2 knowledge production, the Gibbons thesis as a whole remains largely focused on serving economic, and hence private sector market needs, rather than basic social needs (see also Neave, 1997). Clearly, Gibbons almost exclusively interprets the meeting of societal needs and enhancing the quality of life in terms of the contribution of higher education to economic development. However, he does claim that Mode 2 knowledge production generates broader benefits beyond the economic. Although he exemplifies Mode 2 only in relation to knowledge production, it has 'co-evolutionary effects in other areas, for example in economics, the prevailing division of labour, and the local sense of community' (Gibbons, 1998:34). Nonetheless, in explaining the growing social accountability and reflexivity of higher education, Gibbons rather optimistically overstates the case. He argues that, 'contrary to what one might expect, working in the context of application increases the sensitivity of scientists and technologists to the broader implications of what they are doing' (Gibbons, 1998:9). This is because 'the issues which forward the development of Mode 2 research cannot be specified in scientific and technical terms alone'. The implementation of solutions are 'bound to touch the values and preferences of different individuals and groups which have been traditionally seen as located outside of the scientific and technological system' and who now 'become active agents in the definition and solution of problems as well as in the evaluation of performance'. Likewise, Gibbons argues that new forms of quality control of Mode 2 research extend beyond the closed confines of conventional peer review and incorporate a more diverse range of intellectual, social, political and economic interests.

It may be true that trans-disciplinary teams which include social scientists and other stakeholders may have these consequences. However, this remains a process highly contingent on the power relations implicit in the process. In contending that 'social accountability permeates the whole knowledge production process' (Gibbons, 1998:9), Gibbons ignores the considerable control which corporate interests bring to bear on the

agenda, shape and findings of research and on the composition of the teams. Indeed, conspicuously omitted from his overall analysis, dominated as it is by the techno-economic terrain, are the political dynamics of research (Kraak, 1997). Likewise, as Muller (1995:10) reflects, 'What this burgeoning of technology-carried knowledge work will do for communities, solidarity and citizenship is not yet clear. There is much talk of "virtual community". But real local communities don't go away: they just become less tied into the knowledge and power networks.'

By contrast, I argue below that genuine community partnerships, where the participants' interests are recognised and validated, provide a much more viable model for the social accountability of research.

The purpose of this rather extended exposition of the Gibbons' thesis was to provide a backdrop against which the nature and significance of community partnership programmes and community service learning can be sketched. In subsequent sections of the chapter, I trace the ways in which these programmes parallel features of Mode 2 knowledge production and then argue that these constitute important models for the development of complementary alternatives to the prevailing emphasis on serving societal needs exclusively through globally-oriented economic development.

First, however, in the next section I consider the South African case: its political economy, the tensions inherent in this, and how this is replicated in its higher education policy. This is explored as a backdrop to examining the policy import of the community-higher education partnership model in the South African context.

The political economy of South Africa

Given its particularly politicised history, South Africa represents a vivid and interesting case of the challenge faced by all countries, to respond to global pressures and simultaneously to achieve a more equitable distribution of wealth and opportunity. It thus provides an interesting comparative case in which to observe these political economic tensions as a backdrop to understanding their impact on higher education policy.

South Africa has just completed the first six years of its post-apartheid history. Since the 1990 unbanning of political opponents to apartheid and the release of Mandela and others, and the first democratic

election in 1994, a progressive new constitution and public policy framework has emerged to redress the ravaging inequalities of apartheid. Simultaneously, South Africa has gradually reinserted itself into the international context, grappling with the challenges of positioning itself competitively as an emerging economy in the rapidly changing global scenario.

As a result of its deeply divided social order, South Africa comprises a dual but interdependent social order, shaped by apartheid and largely determined along racial lines. This dual social structure consists of a relatively advanced, globally interconnected political economy dominated by the mainly white rich minority, and a relatively underdeveloped socioeconomic stratum comprising the mainly black poor majority. The former has depended on the latter in many critical ways for its existence and reproduction (Wolpe, 1995). Characteristic of this dual society is the extreme disparity in advantage, power and privilege between the rich minority and the poor majority.

The tension in South Africa's macro-economic policy manifest in its two-fold development imperative – namely of simultaneously achieving global competitiveness and of addressing the basic needs of its impoverished majority through the redistribution of wealth and opportunity – emanates directly from its stark dual social structure. The broader tensions underlying globalisation are replicated vividly in South Africa's emerging macro-economic policy and, as we shall see shortly, in its higher education policy goals.

Given the socialist leaning of the ruling African National Congress during the years of its anti-apartheid resistance, the unanticipated moderateness of its current macro-economic policy may appear somewhat anomalous. This bears testimony to the persuasive power of the neo-liberal global consensus. Following the reforms of the apartheid regime during the late 1980s, the new government has initiated a voluntary structural adjustment programme designed to create a conducive climate for foreign investment, to win World Bank and IMF favour and to assuage the concerns of local business. It has therefore positioned itself squarely within the prevailing neo-liberal paradigm of unfettered capital flows and monetarist fiscal restraint, while retaining a broad moral and political commitment to reconstructive development and to the redistribution of wealth and opportunity.

This duality manifests in two strongly contested and contradictory policies. The first is the *redistributive development path* embodied in the

government's 1994 Reconstruction and Development Programme (RDP) – an integrated programme aimed simultaneously at meeting the basic needs of the people, thereby kick-starting growth through redistribution, and sustaining this growth through an export-led high-tech competitive engagement in the global arena. The second path prioritises *globally oriented development*, and is premised on structural adjustments and redistribution through growth. It is linked to the government's 1996 Growth, Employment and Redistribution (GEAR) strategy which aims at job creation through a projected growth rate based on increasing foreign investment. It is consistent with World Bank macro-economic principles of budget deficit reduction and restricted social spending. To date, GEAR targets have not been reached, apart from reduction of the budget deficit.

While there has been constant rhetorical commitment to the RDP goals of meeting basic needs, not only have there been severe delivery problems and organisational haphazardness in grounding the RDP, but deep contradictions have also emerged in the formulation and implementation of macro-economic and fiscal policy measures. For example, while offering relief to the low income groups, the proportional tax burden has increasingly shifted from companies to individuals in order to create conducive conditions for investment and growth.

These developments represent significant ideological shifts in government policy from its previously more unconditional commitments to the redistribution of wealth and have severely strained its alliance with trade unions and the South African Communist Party. In particular, recent sustained opposition by its partners to the GEAR strategy has been premised on the argument that it fundamentally favours the global development path at the expense of RDP concerns and the interests of the poor. Even the Church has opposed GEAR on the grounds that it does little to assist the poor. The ANC has subsequently agreed to modify GEAR targets, but remains committed to its framework.

Clearly, South Africa must follow a 'Third Way' complementary development path which accommodates global and redistributive concerns. Achieving this implies demonstrating considerable political will in critically challenging the neo-liberal orthodoxy, in identifying its internal contradictions in solidarity with other southern developing countries, and in justifying a strong role for the state in regulating transnational capital flows and in fulfilling its redistributive agenda. The state must actively drive basic development, to complement the private sector's role in driving growth.

Higher education policy in South Africa

These wider tensions and challenges are embedded in emerging higher education policy in South Africa as the system has undergone fundamental restructuring. The 1996 report of the National Commission on Higher Education (NCHE) provided the framework for the reconstruction of the higher education system and laid the foundation for the government White Paper on higher education (DoE, 1997) and the subsequent *Higher Education Act* (1997). This framework borrows heavily from international models of financing, quality assurance and national qualifications, mainly from the UK, Australia and New Zealand. The new policy framework establishes the foundation for a unified, equitable, well-planned, programme-based system. It aims to overcome the prevailing mismatch between higher education output and the demands of economic and social development, to ensure quality, to reduce wasteful duplication through planning, and to redress the severe race, gender, geographic and institutional inequalities which are the legacy of apartheid.

Tensions among higher education stakeholders were high during the formulation of the NCHE report and the subsequent Green, Draft and Final White Papers on higher education transformation (Subotzky, 1998a). Mirroring the broader macro-economic tensions outlined above, the main contestations were around the emphasis on the role of higher education in contributing towards global competitiveness as opposed to serving the basic needs of the poor majority. Significantly, the final White Paper makes numerous and balanced references to both global and redistributive development priorities. According to the White Paper (DoE, 1997:7), higher education in the context of contemporary South Africa must 'contribute to and support the process of societal transformation outlined by the RDP, with its compelling vision of people-driven development leading to the building of a better quality of life for all'. It must also 'provide the labour market, in a knowledge-driven and knowledge-dependent society, with the ever-changing high-level competencies and expertise necessary for the growth and prosperity of a modern economy' (DoE, 1997:7).

However, without exploring the basis upon which reconstructive community-oriented development can be programmatically and institutionally operationalised, these goals remain unresolved,

contradictory challenges. While numerous accounts in the literature characterise the new organisational and epistemological features of the 'market' university, policy debates are relatively silent on the corresponding features of the reconstructive development function of higher education. A recent review of trends in the literature on *Higher Education and the Public Good* (ERIC, 1996:1) suggests that 'economic development is most represented in the literature, with political and social development significantly less discussed'. New ways, it is suggested, 'for higher education to support these goals regionally or locally – for example, through service learning or action research – should be studied'. Other areas of research which should receive focus include the impact of higher education on specific communities, the role of higher education in developing citizenship and working for global good in an increasingly challenging social context, and collaboration, which 'is seen as important in strengthening the role of higher education in society and higher education's meeting needs more closely' (ERIC, 1996:3). The model of community partnerships, discussed below, focuses directly on these concerns.

New concerns about the contribution of higher education to the public good

Renewed interest in the contribution of higher education to the public good and community development is part of a growing world-wide concern for enhancing the civic responsibility and broader social purpose of higher education in the light of globalisation practices. In response to evidence of the widening disparity between conventional academic practices and societal needs, the role of universities in fostering the public good has come under rigorous scrutiny (see for example Fairweather, 1996, and Tierney, 1997). This concern has been accompanied by a new emphasis on the policy dimension of research, on establishing collaborative linkages with government and the private sector, and on the reappraisal of the service and outreach function of higher education (Terenzi, 1996; Keller, 1998).

In similar vein, Braskamp and Wergin (1997:62) argue that, given the degree of social fragmentation in the environment, 'higher education today has an opportunity unique in its history to contribute to our

society'. Despite the numerous roles which higher education has played in the life and progress of society, the university campus is, in Boyer's words, increasingly 'viewed as a place where students get credentialled and faculty get tenured, while the overall work of the academy does not seem particularly relevant to the nation's most pressing civic, social, economic and moral problems' (Boyer, 1996, as quoted in Braskamp & Wergin, 1997:62-64). There is increasing pressure in the USA to bridge the gap between higher education and society, and 'to become active partners in addressing and solving our social ills and be more competitive internationally'. Higher education institutions now need to 'reorient themselves as active partners with parents, teachers, principals, community advocates, business leaders, community agencies, and general citizenry' (Braskamp & Wergin, 1997:64). Higher education, in view of these authors, will enhance its usefulness to society by 'becoming a forum for critical community dialogues, by advancing practice-based knowledge and policies as well as upholding the creation of theory-based knowledge, and by utilising faculty expertise in new ways - in short, by forming new social relationships' (Braskamp & Wergin, 1997:64).

Community service partnerships and community service learning

As part of these contemporary concerns, the community service partnership model - and within this, community service learning - has emerged as an important means by which higher education institutions can directly serve social development. The brief characterisation which follows corroborates the main claims of this paper. These are (a) that, in fostering community development and social equity, this model constitutes a complementary alternative to the entrepreneurialisation of higher education; (b) that the model (potentially at least) integrates and mutual enriches experiential learning, socially relevant research and community service; (c) the knowledge thus produced in the social and community context of its application closely resembles the socially distributed, applications-driven, Mode 2 knowledge production described by Gibbons; and (d) that, in contrast to growing managerialism, participatory knowledge production in the partnership model involves more collaborative forms of decision-making.

The idea of service in higher education is not new, but is receiving much more intense focus currently as a policy option. Most institutions' mission statements identify community service as part of the universally-recognised tripartite function of the modern university, namely, teaching, research and outreach. Nonetheless, only recently has the community service learning and partnership model provided a systematic operational basis for pursuing this goal as an institution-wide initiative which combines community development and academic benefits.

Community service learning (CSL) has grown rapid recently, especially in the USA (Bringle & Hatcher, 1996; Ward & Wolf-Wendel, 1997). CSL is defined as 'a form of experiential learning in which students engage in activities that address human and community needs together with structured opportunities intentionally designed to promote student learning and development' (Jacoby, in Ward & Wolf-Wendel, 1997:1). Its distinguishing feature is the systematic integration of community service into the formal curriculum. CSL is closely associated with problem-based learning, especially in the Health Sciences.

The practice originated within mainstream USA academia during the 1970s, focusing initially on outreach projects. During the late 1980s, a second phase attempted to incorporate community priorities more coherently and systematically into the curriculum. This was especially so in those applied, professional and vocational fields with intrinsic service and practicum components, such as in health, law and education. The 1990s trend has been towards an *institutional* orientation towards CSL, so that the benefits of enhanced learning, outreach and the fostering of civic awareness can be achieved across the board as an institution-wide initiative. The CSL 'movement' is now rapidly expanding. The USA National Society for Experiential Education has a long-standing commitment to CSL. The literature on CSL is growing, with several dedicated journals now in existence. Centres for CSL and institutional offices for community development are being established on many campuses. There is growing government, organisational and institutional support for the principles of CSL. The incorporation of service learning as a mandatory component of undergraduate programmes is currently being considered in the California public higher education system, as a result of the Governor's initiative.

Claimed positive outcomes for students include: more effective learning, especially with regard to lifelong learning; the linking of theory and practice; enhancing career goals; improvement in measures of civic

responsibility, changed perspectives of social issues and appreciation of others' cultural and socio-economic situations and personal efficacy; exposure to other cultures and race groups; critical reflection of own attitudes (Ward & Wolf-Wendel, 1997; Perold, 1998).

While these benefits are intrinsically valuable, they should ideally be integrated into a social change and partnership model in order to contribute also towards basic community development and to integrate research activities. Recently, therefore, greater emphasis has been placed on the community partnership model, of which CSL comprises a key component. This model involves a three-way partnership between academic institution, community structures, and service providers (public, private, NGOs and CGOs). Ideally, the concern is not only with the effectiveness of student learning and research opportunities (and hence curriculum development), but also for community development through enhanced service. The model therefore provides an ideal opportunity to pursue the elusive optimal mix between Mode 1 disciplinary knowledge and core, outcomes based problem-solving competencies – a crucial issue in the current South African context.

Clearly, the notion of *partnership* is central to achieving these goals. As in all social relations, partnerships are vulnerable to unequal power relations. Within these 'politics of partnerships', the interests of one partner (especially the academy) easily dominates. The ideal is to recognise and mediate the partners' differences in identities, roles, capacities and interests through relations of mutuality and reciprocity. This implies building capacity towards the joint ownership, design, control and evaluation of community service programmes so that the interests and needs of all three collaborating partners are addressed.

Where successful, a partnership grounded on mutual relations provides reciprocal benefits. Integrated service, learning and research activities occur at an academic/service site located in the community. Context-rich opportunities are provided at these sites for experiential learning and applications-driven research (for students and staff alike, the latter both in disciplinary fields and in experiential learning), for curriculum development, and for community development. Service is enhanced and enriched by cutting-edge research findings.

This is of import for the central concern of this paper: within the partnership model, the beneficiaries of knowledge production are threefold. The ultimate political and social aim is equity and community development. As a means to this goal, learning, research and institutional

development are also achieved.

In practice, however, mutuality in partnerships is a highly elusive ideal. A recent discourse analysis of the current literature on CSL indicates an alarming preoccupation with student outcomes and institutional interests at the expense of symmetry, reciprocity and mutuality in partnerships (Ward & Wolf-Wendel, 1997). The value of CSL appears to be perceived predominantly as a vehicle for achieving academic aims and bolstering the interests and power base of the academy rather than for fulfilling the goal of contributing towards social change.

Implications for higher education institutions

To achieve the partnership ideal, therefore, a fundamental shift is necessary for academics, from seeing the role of the university as producing basic knowledge and providing applied knowledge to help in the solution of problems, to one in which the university is *jointly responsible* for social change in partnership with relevant bodies in the community. Under this new social contract the institution becomes an advocate for social justice (Braskamp & Wergin, 1997).

Based on experience in education outreach projects at the University of Illinois at Chicago (UIC), these authors highlight lessons for higher education institutions in engaging in collaborative work within community partnerships as follows:

Collaborative work often creates a conflict of institutional cultures; that political and community groups want to use the prestige of the university to enhance their agenda; that faculty members often have less *experiential* knowledge of the problem context than do teachers and reformers but compensate by using their theoretical perspectives; that failed experiments outside the academy are more visible than a failed experiment in a laboratory; that compromise is essential; that new forms of communication are needed to reach different audiences; that partnerships can be intellectually exciting and challenging; that faculty scholarship is enhanced; and that continuous support is needed for long-term impact (Braskamp and Wergin, 1997:77-78).

Braskamp and Wergin argue that the success of such ventures depends on substantial reorientation of the mission and focus of higher education, particularly at research universities.

These changes must begin, they contend, with a new social contract between higher education and the greater community, of which there is already growing evidence. Renegotiating the social contract implies dispelling the public perception that academic freedom is a smokescreen for furthering the private benefit of individual and institutional academic interests. The authors argue that the role of the modern university is to become more responsive to *social* (and not only market-related) problems and to function as a forum for the expression and negotiation of social discourse. Both of these functions have clear implications for the nature of faculty work and the focus of academic leadership.

While there are greater demands to address social ills, the academy remains on the one hand increasingly preoccupied with the market ethos, and on the other largely inwardly turned towards maximising and rewarding quantifiable publications output which is the currency of conventional academic practice. This separation of the academy from society 'has been conscious, deliberate, and defining' (Braskamp & Wergin, 1997:80). Without including communities in defining research goals and agendas, higher education institutions 'will become victimised by their own myopia' (Braskamp & Wergin, 1997:80) or, we may add, narrowly market-oriented.

Encouragingly, against the tendency towards the increasing commercialisation and privatisation of faculty work, the authors identify the emergence of 'public intellectuals' who want to influence public policy. They wish to publish widely in non-academic publications and the mass media, expressing their ideas in non-academic language. Present throughout the USA and often black and female academics, they are typically shaped by 1960s activism or are young faculty members who wish to integrate societal concerns into their personal and professional lives and to establish the social utility of research. They are informed by new particularist epistemologies by which truth should not be separated from personal experience. Thus, 'to the extent that the emerging perspectives of scholarship are both more political and more relevant, they parallel, without necessarily paying homage to, social forces pushing for change' (Braskamp & Wergin, 1997:83).

In the authors' view, a key insight is that 'through partnerships, the research and instructional agenda can be intricately connected to the

communities outside the academy' (Braskamp & Wergin, 1997:87). This provides the principal means of linking academic freedom with social accountability and responsibility, of escaping the insular sanctuary of the academy and of addressing the clamouring demands made on it by its social partners. In this way, the function of the modern university will be met: to be a 'very active partner in shaping its social relationship with society, being responsive while retaining its core purposes and standards' (1997:89). Braskamp and Wergin's account thus corroborates the partnership model as an alternative to the marketisation of higher education and resonates with Gibbons' notion of the relevance of Mode 2 knowledge production.

Implications for knowledge production, learning and scholarship

Part of the shift entailed by engaging in community partnerships is a fresh view of the relationship between theory and practice. Academic purists who define legitimate knowledge as theoretical in nature and the academic as the sole repository of this, must recognise and be informed by other valid forms of experiential, indigenous, tacit and pre-theoretical knowledge that are endemic to the non-academic and community context and that are therefore beyond the reach of theoretical academic research.³ Without romanticising the higher rationality of lay knowledge, which Weingart (1997:611) cautions against, the ideal approach would for these seemingly incommensurate knowledge forms to enrich each other in a complementary way. This is especially so in the developing world context, where the particularities of people's experience and the tacit knowledge which they have of their own contexts are vital for sustainable development (Parker, 1998).

Collaborative partnerships do not therefore imply abandoning basic research or compromising rigour. On the contrary, faculty involved in

³ This attitude is caricatured in the apocryphal story about the university physics professor who was called to a farm to examine a perpetual motion machine developed by an uneducated farmer, which pumped water uphill endlessly without external energy sources. On witnessing the machine's successful operation, the professor was at first clearly taken aback, but quickly dismissed it by saying, 'Ah well, it's all very well that it works in practice, but it will never work in theory!'

partnerships realise that 'their own claims on the truth [are] rather fragile and incomplete' (Braskamp & Wergin, 1997:80). Faculty have to learn to bridge the gap between the meaning of research findings and the meaning constructed by those affected by the results, and between academic and political truth.

The gap between 'needy' communities and 'knowing' campuses must therefore be dissolved and the charitable model must be supplanted by an assets-based social change model, which recognises and incorporates informal and indigenous knowledge production and capacities in communities. This involves the sensitive process of building mutually trusting relationships between academics and stakeholder groups in order to identify and collaboratively address complex problems (Ward & Wolf-Wendel, 1997).

Addressing the complex social problems embedded in community development partnerships involves a new mode of social application-driven trans-disciplinary knowledge production. Where this does occur, it appears to be similar to the Mode 2 type knowledge production which has emerged in higher education-industry partnerships. Community-partnership knowledge production not only involves the generation and application of research findings and available knowledge by the academy in community development programmes, but, importantly, also involves participation by community members in the research process, in setting research agenda based on needs analyses and in controlling and evaluating programme outcomes.

The combination of formal and informal knowledge production implies an expanded sense of scholarship which includes and rewards not only conventional discipline-based inquiry, but also, as Boyer (1990) argues, the scholarship of integration, outreach engagement and teaching, and, as Walshock (1996) suggests, the notion of integrated teachers, scholars, professional service providers and researchers. Park (1996) provides a convincing argument for the expansion of the notion of scholarship along similar lines in order to accommodate and reward the unrecognised teaching, research, outreach and integrative work of women. In the South African context, this would apply equally to marginalised (black and other) academics in community-oriented programmes in the historically disadvantaged institutions.

This points clearly to the value of linking teaching, research and community service. The importance and effectiveness of inquiry-based learning is emphasised by Clark (1997a), who suggests that the 21st

century workforce will demand complex problem-solving skills amidst growing fluidity and uncertainty. The best pedagogical preparation for this is 'discovery-based learning experiences' and being educated in a 'discovery-rich environment' (Clark, 1996:294). For these reasons, learning-by-discovery, and teaching and learning by means of research processes should become the norm. While the close link between postgraduate studies and research offer particularly rich opportunities in this regard, inquiry-based learning should not remain the preserve of the postgraduate level and should increasingly underpin undergraduate studies as well. This is so in respect of the effectiveness of a research-based pedagogy as a learning tool and as a preparation for applying the acquired competencies in the world of work in addressing complex social problems.

Research-based learning is effective learning, then, in producing the core competencies and skills necessary for the complexities and indeterminacy of the millennium. By extension, to the extent that programmes should increasingly be oriented towards social problem-solving and community development in order to realise the social purpose of higher education, the logic and policy value of embedding learning and curriculum development within community service partnership programmes is persuasive. This mirrors Gibbons' (1998) assertion of the importance of a trans-disciplinary, problem-oriented curriculum as the most effective way of creating the required skills and capacity to mount Mode 2 research. However, as indicated, the solid foundation of quality Mode 1 disciplinary knowledge and skills is a prerequisite.

Taylor (in Perold, 1998) arrives at similar conclusions, providing a useful conceptual framework for CSL. Community service learning includes academic study, community service and structured reflection to integrate the study and service components. Three community service goals can be identified: promoting active democratic citizenship and communitarianism; utilising intellectual and other resources of higher education institutions to improve the lives of underprivileged communities through the provision of practical services; and infusing the curriculum with greater relevance through a focus on current social, economic, political and environmental problems.

These three aims embody three essential components: the academic, the practical and the civic. Where these three intersect, the community service ideal is achieved – theoretical knowledge and practical skills are integrated; community development is undertaken; curriculum

development and research are linked and shaped by problems embedded in the community. Though many programmes aspire towards this ideal, few achieve it and remain oriented to two of the three goals.

In analysing the interface between the academic, social and practical elements of higher education, Taylor raises important concerns about where it is epistemologically and operationally appropriate to incorporate practical service elements into academic study. He questions whether activities situated in the intersection of academic and civic concerns, such as political philosophy, ethics or jurisprudence, should necessarily incorporate a practical service component. Underlying the 'strong' view of experiential learning – increasingly evident in the debate on community service in higher education in South Africa – is the expectation that all concepts should be grounded in practical experience. Taylor argues that this is unworkable and might degenerate into crudities which reduce the new challenges facing higher education into simplistic forms of curriculum and pedagogy. He concludes that the successful integration of practical service activities with the academic analysis of citizenship issues depends on whether the practical element is really appropriate to the topic under study, on suitably available service sites and on efforts by faculty to link academic theory and practical manifestations.

The link between the academy and service activities is less problematically encapsulated in professional training, which assumes a close interactive link between academic and practical knowledge and experience, between the conventional disciplines and problem-based practice. Internship, fieldwork and practical placements are intrinsic to professional training in higher education. However, the question here remains: to what extent should academic work in other fields contain a practical component and to what extent should professional training contain a civic component?

In conclusion, adopting the partnership model has clear implications and benefits for higher education. Its success depends on substantial shifts not only at the mission level, but also in terms of epistemological attitudes and academic practices, particularly at research universities. These changes entail a new social contract between higher education and the greater community, based on the conduct of applications-driven research which is integrated into teaching and outreach activities. It thus constitutes a complementary alternative to private, market-related entrepreneurialism.

Case studies and developments in community partnerships and CSL in South Africa

Given its political history, a strong community service ethos emerged in South Africa during the 1980s, as activist faculty attempted to link their academic pursuits to the anti-apartheid struggle and to make their expertise accessible to civil society (Cooper, 1992). Given this activist tradition, the current challenge is to ensure that academic knowledge and its local and indigenous counterparts are produced and disseminated as part of service activities so that practice can be improved (Kraak & Watters, 1995). In this way, rigour and relevance can be linked. These, as Cooper (1992) argues, are not necessarily contradictory, as is often claimed by disciplinary purists.

Community service is currently receiving close attention in South Africa, partly in response to the government's recent decision to implement community service for medical, pharmaceutical and legal graduates, and partly as the consequence of the argument that 'community service in higher education has the potential to contribute to the reconstruction and development goals of the new government' (Perold, 1998:2).

A review of the literature as well as recent case studies (Perold & Omar, 1997; Subotzky, 1998a, 1998b) reveals an interesting array of community service programmes and community service learning opportunities. These clearly are contributing towards social upliftment in diverse ways and, central to our argument throughout, constitute complementary alternatives to the marketisation of higher education. Predictably, the most developed of these programmes are in the health and other professional fields, but many also involve inter- and trans-disciplinary elements.

The Afrikaans Pretoria University, for example, in 1993 established a semi-rural satellite campus about 50 km north of Pretoria. Here the university applies community service learning to provide a comprehensive teaching approach in which theory and practical experience are merged. The aim is to produce graduates better equipped to meet labour market demands. By integrating training with research and community service, the intention is to contribute towards the aims of the RDP. The campus is situated in a diverse environment comprising squatter settlements, industries and a rural area and lies adjacent to a

hospital, a school for the deaf, a police training college and an industrial area. Courses are presented in medicine, education, agriculture, arts, architecture, building science and sport. The programme aims to contribute significantly to creating job opportunities in the communities and to provide basic services such as health care, teacher training, legal aid, housing, communication, social work, town and regional planning, landscape architecture and veterinary science.

Another well-developed partnership programme is the Mangaung-University of the Free State Community Partnership Programme. This combines primary health services, community service learning opportunities in the training of health professionals, and community development. Established in 1991, the project provides an impressive evolving model of an intersectoral, trans-disciplinary partnership between the community, academic institutions and provincial authorities, and extensive experience of overcoming the many pitfalls in establishing this. In serving the development needs of the population of about 300 000 in the impoverished Mangaung community and surrounding informal settlements, the programme involves 200 students and lecturers from the Medical School and the departments of Nutrition, Psychology, Physiotherapy, Agriculture, Small Business Development and Education. This is one of seven national community partnership programmes funded by the Kellogg Foundation.

Similarly, the University of the Western Cape's Faculty of Dentistry Oral Health Centre was established in 1992 as a response to the oral health service needs of some 2.5 million people in the disadvantaged community in the greater Cape Town area. The Centre is a World Health Organization collaborating site for the training of diploma, undergraduate and postgraduate Dental/Oral Health students and oral hygienists. Community-based dental education is provided by 115 full-time and part-time staff at the Centre and at other sites in the greater Cape Peninsula as part of Faculty outreach programmes. Educational opportunities are provided to disadvantaged students from all regions of South Africa through the university's alternative admissions policy. Joint funds provided by the university and the regional government are used for training students and treating some 80 000 patients annually. Staff have also contributed towards local and national policy and planning of dental services. Likewise, University of the Western Cape's Public Health Programme and its Western Cape Community Partnership Programme run a variety of health personnel training courses, including postgraduate

courses, within service learning contexts.

A noteworthy agricultural initiative is the University of Natal's School for Rural Community Development which provides certificate, diploma and degree programmes in Rural Resource Management (Luckett & Luckett, 1997). This is linked to a Farmers' Support Group. Rural development practitioners are trained within a formal outcomes-based academic programme, developed in collaboration with the University of West Sydney, an agricultural college which has instituted radical reforms in curriculum and assessment. The focus is on the development of core competencies such as systems thinking, participatory inquiry methodologies, project initiation and development, oral and written communication skills and 'learning to learn'. These capabilities are developed through experiential learning in which placements in rural communities form an integral part. Open access and mobility is ensured by enabling multiple entry/exit points within the certificate, diploma and degree programmes. While the emphasis is on skills and outcomes, a research component is incorporated through problem-based community work, which is mentored by staff. Links have been established with regional councils and the Department of Land Affairs to develop long-term sustainable rural development.

Within these projects, there is evidence that the complexity of community development is being approached through the inter- and trans-disciplinary approach mentioned by Gibbons. They clearly also provide opportunities for the integration of teaching and research within the community service setting. While there is some evidence in these cases of community service initiatives feeding back into curriculum development (Luckett & Luckett, 1997; Perold, 1998; Henning, 1998), formal knowledge production remains the weakest link, especially in departments which have heavy service and outreach loads, such as Physiotherapy and Occupational Therapy. In the South African context, most of these departments are admirably orienting towards community development, primary health care and service learning. However, research tends to be restricted to postgraduate (and to some extent undergraduate) project work, with staff research underdeveloped, especially where there are heavy service, supervision, administration and programme co-ordination loads. In some cases, time does not appear to be the only obstacle. The case studies suggest that skills and confidence, as well as appropriate knowledge and methods to turn reflective practice into formal research output, are lacking. In addition, there is little evaluation of community

benefits, the methodology of which is challenging and problematic (Magzoub & Schmidt, 1996). Other problems relate to the duration of service placements, the quality and quantity of supervision, and the lack of adequate resources and planning.

In many instances, the potential for formal research output is latent. Indeed, the development of appropriate research capacity-building models to remedy this and the fostering of a research culture under these conditions constitutes the focus of the planned major study mentioned earlier in this chapter.

Interviews with a university-based teacher in-service programme focusing on whole-school development indicated that there were eminent formal research possibilities embedded in the reflective activities conducted by practitioners in their quest for greater effectiveness. There is a valid research dimension to their practice which involves critical theorising about a number of key issues, such as the nature of organisational change, the power relations involved in programmes of this sort and so on. On the basis of clearer theoretical insights generalised from practice, further more effective change and school improvement interventions can be implemented and tested through evaluation. This clearly articulates the close relationship between theory and practice in this process. This kind of action research is related to Mode 2 knowledge production in that it is clearly generated in the context of application and is oriented to practice-based problem-solving. It includes researchers and change agents other than the formal researchers – namely the school teachers and managers involved – who contribute towards the research and change process. In addition to the informal knowledge production which is disseminated through the action research process in reflectively improving practice, in some cases teachers have collaborated with the university-based practitioners to produce formal research outputs in the form of joint papers. Through peer-reviewed and popular journals, these contribute towards improving school practice more widely.

The pattern of informal knowledge production in action research described above corroborates Gibbons' view that knowledge production in the prototypical Mode 2 organisation is unpredictable. Creative teams identify and solve problems, which, because they cannot often be defined in advance, are not revealed in formal meetings and agendas. They emerge instead, Gibbons (1998:27-8) suggests, 'out of frequent and informal communications among team members'. In this way, 'mutual learning occurs within the team, as insights, experiences, puzzles and

solutions are shared'.

The community partnership model parallels this directly. This captures Gibbons' assertion that 'the sharp distinctions between academic and lay players in knowledge production have weakened because the latter play a key role as brokers (or even creators) of science' (Gibbons, 1998:20). This results from the fact that 'old demarcations are breaking down between traditional universities and other higher education institutions because both are embraced within the extended university', which – it may be added – also involves ongoing community/government partnerships. Linked to this, observes Gibbons, is the questioning of other traditional demarcations: those between theory and practice, science and technology and knowledge and culture.

A recent case study among various non-health academic departments in higher education institutions in the Western Cape (Kraak & Watters, 1995⁴), revealed clear examples of Mode 2 practices in all four disciplines investigated: Engineering, Physics, Business Management and Anthropology. Of the cases cited as indicative of Mode 2, many failed to capture *all* of the defining Mode 2 criteria as specified by Gibbons *et al.* No clear conceptual boundary between applied, contractual, and multi-disciplinary research and Mode 2 research could be drawn. Likewise, significantly for my purposes, it was difficult to distinguish between action research methods implicit in outreach and socially distributed Mode 2 trans-disciplinary knowledge.

The authors conclude that a 'partial diffusion' of Mode 2 research practices was observable. A number of constraints contribute to this piecemeal growth, although there are also factors which are likely to facilitate and encourage Mode 2 research in the future. It is clear that some programmes investigated display some of the characteristics of new knowledge production, though they still form a minority of research undertaken and are embryonic and restricted in a number of ways. Given the various political and academic constraints and resistance towards new knowledge production, 'it is unlikely that Mode 2 research will flourish unless policy parameters are defined to encourage and facilitate it' (Kraak & Watters, 1995:10). The implications are that 'the higher education policy framework must seek to deepen these early beginnings,

⁴ A revised version of the cited paper appears as a chapter in this book: *Investigating New Knowledge Production: A South African Higher Education Survey* – Ed.

for ... Mode 2 is critical both to the success of the RDP but also to the rejuvenation of our national economy as a globally competitive and knowledge-intensive resource' (Kraak & Watters, 1995:17).

It is noteworthy that, while South Africa's historically black universities are generally very poorly disposed towards functioning as entrepreneurial institutions as a direct consequence of the multiple effects of apartheid, excellent community-oriented programmes do exist which serve as models for community development partnerships (Subotzky, 1997, 1998a). The missions of historically disadvantaged institutions have always been closer to community concerns and they have had close links to the communities they serve. Academics in these institutions can potentially combine their tacit and explicit knowledge of these contexts and thus turn disadvantage into comparative advantage (Kraak, 1997; Subotzky, 1997). This is evident in an interviewee's comment in a major recent study of historically black universities (EPU, 1997:429):

We try to use our disadvantages and change them into advantages ... especially if you look at our institution in the context of the new dispensation, the RDP and so on. I think we have an ideal opportunity to use our rural environment to do relevant research. Obviously we cannot compete with [the historically white research universities of] Wits or Cape Town in nuclear physics, and I don't think we should.

However, all institutions are strategically positioning themselves within the new and increasingly competitive higher education policy and planning context. As the case studies indicate, historically white universities, and especially the Afrikaans-speaking ones (who were historically more supportive of apartheid and whose future in the new South Africa is now threatened), are developing innovative community-oriented initiatives (Subotzky, 1998b).

In South Africa currently, a major project (the Community-Higher Education-Service Partnerships initiative) is underway to establish pilot partnership projects at eight institutions. The ultimate aim is to replicate the model more widely, so that institutions can fulfil the White Paper's policy goal of contributing towards community development. A noteworthy aspect of this project is that it is accompanied by a leadership capacity-building programme at the master's level, in which three participating partners from each sector are enrolled. The modules of the

programme and the assignments within them are designed not only to build the necessary capacity in the three participating organisations, but also to form part of an integrated and systematic planning framework for implementation of the pilot projects. One module involved comparative cross-international research in the form of site visits to USA universities where community partnerships have been well established as institution-wide initiatives. The research and evaluation component (in which the Education Policy Unit at UWC is centrally involved), which will draw from these modules, should reveal insights about the obstacles and best practices involved in building capacity and in planning and implementing the partnership model.

Concluding comments

Clearly, the pressures and challenges of globalisation and their impact on higher education are here to stay. However, their effect is neither uniform nor inevitable and – where conducive political, economic, cultural and institutional conditions prevail, they can be critically challenged and mediated. To do this successfully, alternatives to the increasing currency of globalisation practices must be identified and strengthened.

I have argued that amidst the strong trend towards the marketisation of higher education which is the direct outcome of these globalisation practices, the community partnership model is an exemplar of a viable complementary alternative. The case studies show that developments in the community partnership model in South Africa and elsewhere corroborate my contention that this model represents a significant counter-trend to the marketisation of higher education. The innovations identified in the case studies are directed towards the solution of complex social development problems and clearly constitute forms of applications-driven, trans-disciplinary knowledge production, which closely resemble Gibbons' Mode 2, but which differ crucially in that they integrate and mutually enhance teaching, research and outreach. In this way, the community partnership model serves as an important site for actualising the social purpose of higher education and of countering the negative impact of globalisation on higher education.