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Challenging Knowledge
The University in the Knowledge Society

Gerard Delanty
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Preface and Acknowledgements

The background to this book lies in three quite separate areas that I have been interested in for some time: the sociology of knowledge, the social theory of modernity and the debate on the idea of the university from the Enlightenment to the global age. It is the aim of the book to bring these quite diverse topics together in order to rethink the question of the identity of the university in the twenty-first century. I have attempted to look at the university as a key institution of modernity and as the site where knowledge, culture and society interconnect. In essence, I see the modern university as a producer and transformer of knowledge as science and knowledge as culture. It cannot be reduced to either science or culture for it is an institution that mediates, or interconnects, several discourses in society, in particular the encounter between knowledge as academic discourse and culturally articulated cognitive structures. Such a cautiously ‘universalistic’ view of the university suggests that its key role is linked to reflexive communication and citizenship. In particular, such a role will today entail the articulation of technological and cultural citizenship. In this way I have attempted to show that the identity of the university is determined neither by technocratic/managerial strategies nor by purely academic pursuits: in the ‘knowledge society’ knowledge cannot be reduced to its ‘uses’ or to itself because it is embedded in the deeper cognitive complexes of society, in conceptual structures and in the epistemic structures of power and interests. Rather than being a passive actor, drawn helplessly into the market, it can have a transformative role. Thus rather than speak of the demise of the university as a result of the postmodern scenarios of the fragmentation of knowledge, the retreat of the state and the embracing of market values, this sociologically constructivist approach facilitates a new identity for the university based on its ability to expand reflexively the discursive capacity of society and by doing so to enhance citizenship in the knowledge society.

This book is a development of my contribution to a debate in a special issue of Social Epistemology (vol. 12, 1998) on the university as a site of knowledge production. The theory of modernity underlying it draws from
my Social Theory in a Changing World (published by Polity Press, 1999) and
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fect their views.

Gerard Delanty,
May 2000
Introduction: Challenging Knowledge

The history of western social and political systems of thought can be said to be the expression of a deeply rooted conflict between two kinds of knowledge: knowledge as science and knowledge as culture. The origins of this go back to the classical Greek opposition of logos and doxa, knowledge versus opinion, a conflict which also established the superiority of knowledge over democracy. As is well known, Plato rejected the world of ordinary knowledge as illusion and democracy as the expression of political degeneration, and not without reason, for when Athens became a self-governing democracy one of its first acts was to sentence Socrates, the paragon of knowledge, to death by drinking poison. It would appear that knowledge and democracy are incompatible and that nothing can bridge the worlds of the cave and the academy.

Moving from Plato’s Academy to Immanuel Kant’s plea to the Prussian king to have a university founded on the principles of reason, we find a second instance of the precarious relation between knowledge and democracy (Kant, 1979). In what was to be one the most influential visions of the modern university, Kant gave expression to patrician republicanism which confined democracy to academic discourse. In distinguishing between public and private reason, with the former pertaining to academic discourse and the latter being outside argumentation, Kant excluded from the university anything that might be disruptive of the smooth functioning of society. Public reason, institutionalized in the university, was thus de-politicized. The subject of my book is precisely this question of the relationship of knowledge and the culture of democracy with respect to the university. Is a democracy of knowledge possible? Of what would it consist and what kind of university would it call into being?

The current situation of the university reflects the contemporary condition of knowledge. The most striking aspect of this is the penetration of communication into the heart of the epistemic structure of society precisely at a time when this is also happening to democracy, for both knowledge and democracy are being transformed by communication. In the past, in
the age of modernity, from the Enlightenment to the postwar period, the institution of knowledge existed in a space outside the flow of communication. This place has been occupied mostly by the university. Knowledge has been seen as a site, a place, that can be occupied by something called a university. In this conception, knowledge was located in the university, not in society, which like the polis for Plato, enjoyed the epistemic status of the cave. Communicative forms of action found little resonance in the university, confined as they were to the prepolitical private domain or the public realm from which the university excluded itself. Though universities were always important sites of intellectual resistance to power, the institution was primarily designed to serve the national state with technically useful knowledge and the preservation and reproduction of national cultural traditions. As the protector of the cognitive structure of the modern national state, the university represented an epistemic paradigm in knowledge whose chief characteristic was its autonomy. Underlying this was a model of consensus about the social and political order. In the broader historical context, dissent in society has only rarely penetrated into the university, exceptions being in the foundation of the University of Berlin, the foundation of University College London and University College Dublin in the nineteenth century and which inspired some of the most important debates on the ‘idea of the university’. The university formed a pact with the state: in return for autonomy it would furnish the state with its cognitive requirements. The great social movements of modernity – the workers’ movement, the anti-slavery movement, colonial liberation – had little to do with the ivory tower of the academy and its posture of splendid isolation.

This mode of knowledge was challenged in the late 1960s, and in many countries there was considerable reform in the university by the mid-1970s. But these reforms had little impact on the actual production of knowledge and many merely concerned the institutional organization of the university, with demands for student representation and the democratization of an ancient institution. Although the university became for the first time in its history an important site for the radicalization of democratic citizenship, disciplinary-based knowledge continued more-or-less unscathed in what was still an industrial society. What is occurring today in our postindustrial society is a crisis not only in the structure of authority and in the cognitive structures of society as was the case a few decades ago but in the very constitution of knowledge as a result of the extension of democracy into knowledge itself. While in the early 1970s the university did embrace the democratic ethos of citizenship in its strong advocacy for civic, political and social rights in movements ranging from the civil rights movement to democratic socialism and feminism, these concerns were relatively extra-epistemic in that they were not directly connected with the production of knowledge itself but with radical democracy and such cognitive ideas as justice, happiness, equality, emancipation. Despite widespread cultural critique, the mode of knowledge was not itself transformed by democracy.
It is a feature of democracy that it is anarchic: it is a space that is inhabited by no one social actor (Lefort, 1986: 279). In the western liberal democracies this pure kind of democracy has been modified by the rule of law, and in the field of knowledge this legal form of democracy, along with democracy's other sides – pluralization, or the representation of interests, and citizenship, or public participation – are limited since knowledge is an open structure and when social forces enter into it the result very often has been ideology. Yet, something like a democracy of knowledge rooted in citizenship can be possible. What makes this prospect more likely today is that the challenge does not just emanate from democratic forces in civil society, as was the case in 1968, but stems to a large degree from changes within the structure of knowledge and its relation to cultural production. Indeed, I would suggest that the intrusion of civil society into the university may even be less revolutionary. The current situation, in my estimation, is a good deal more interesting in that there is far greater questioning of knowledge going on, not only in the academy though, but in society more broadly, and this is leading to a different kind of cognitive structure and to a different and more reflexive role for knowledge. Examples of questions that cut across the epistemic/cognitive, or knowledge/culture, divide are those pertaining to biotechnology, bioethics, nature, ecology and sustainability, the growth of populations, information technology and multiculturalism. In other words, some of the fundamental cultural questions today relate directly to knowledge. My contention in this book is that if the university does respond to the changing nature of knowledge production and of shifts in cognitive structures, it will have to address the challenge of technological and cultural citizenship, which can be seen as the basis of a new cognitive structure.

According to Gibbons et al. (1984) a new model of knowledge, called Mode 2, is replacing the Mode 1 of organized modernity. It is characterized by the proliferation of many knowledge producers working in the context of application, which is mostly problem specific. In this situation the university is no longer the primary site of knowledge production, having been challenged by a range of new knowledge producers. Disciplinary boundaries are becoming blurred as multidisciplinarity becomes the norm, and as the new phenomenon of ‘postdisciplinarity’ takes over (Turner, 1999). What this amounts to is not quite clear. For some it could mean the end of knowledge, or at least of a particular conception of knowledge as self-legislating or legitimated by reference to meta-narratives, as Lyotard argued (Lyotard, 1984). It is clear that there has been widespread de-legitimation of the university in what is also the last great crisis of modernity itself. This crisis is particularly manifest in the battle over knowledge. Just as the beginning of the twentieth century witnessed the end of the nineteenth-century mode of knowledge and dominant cultural model, so too, today, we are witnessing the end of the mode of knowledge that emerged along with organized modernity and its cultural model and institutional framework. Specialization within disciplinary and national boundaries has ceased to be
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the exclusive kind of knowledge that is being produced today and the university is no longer the privileged site of knowledge. Battles over knowledge in the context of the identity of the university, which first erupted in 1968, have today taken a more radical form and have penetrated into the cultural model of society. With the dissolution of the old socialist movement and the coming of new politics, the university has become a major site of battles of cultural identity, confrontations which have had major repercussions for the very meaning of a discipline-based knowledge as well as a historically formed canon (Bloom, 1987). In these debates the postmodernist attitude to identity – the rejection of a stable concept of the self in favour of multiplicity and heterogeneity – has penetrated into the cognitive structure itself, making dissensus rather than consensus the order of the day.

This all means that the notion that the university as based on a founding cognitive ‘idea’ – as in the famous works of Newman (1996) or Jaspers (1960) – is no longer tenable: there are many ideas of the university since there are many cognitive structures in contemporary society. With the loss of a self-legitimating idea, or a foundational cognitive model, and the emergence of a multiple order of cognitive models, the question of identity arises. The current situation, then, is one of crisis for the university, as is witnessed in the expanding debate on the identity of university in the past few years (Barnett, 1994; Berube and Nelson, 1995; Scott, 1995; Sommer, 1995; Readings, 1996; Rothblatt, 1997a; Bowen and Shapiro, 1998; Delanty, 1998a,b). Having rationalized knowledge, the university would be in danger of rationalizing itself out of existence were it not for the fact that one dimension to this rationalization of knowledge is the increase in reflexivity.

In this reflexive turn in knowledge production, the university has become a focus of cultural reinterpretation about the meaning of knowledge and modernity. The loss of certainty that began with the crisis of nineteenth-century culture has now penetrated into the heart of science with epistemological uncertainty in science being reflected in the crisis of the identity of the university and in the management of risk.

The main changes in the mode of knowledge are the following. First, the historical pact between the state and knowledge that was formed in the late seventeenth century is slowly beginning to unravel. Although still the primary financier of knowledge, the state is no longer the sole guardian of knowledge production. It is true that the state is increasing its subsidization of knowledge, but knowledge is also being produced by other sources. Processes of globalization are also affecting the confinement of knowledge production to the nation state (Scott, 1998b). Of all social resources, it is knowledge, because of its depersonalized and universalistic nature, that lends itself most easily to globalization. Second, contemporary society is coming to depend more and more on knowledge, in economic production, political regulation and in everyday life. This warrants the claim that we are living in a knowledge society as the latest phase of the postindustrial/information society (Stehr, 1994; Castells, 1996; Böhme, 1997). The third change in the mode of knowledge is that as a result of mass education,
social protest and the new social movements, and the rise of new kinds of
information technologies, knowledge is more spread through society than
ever before; it is no longer confined to elites but is more publicly available.
Thus lay knowledge can no longer be separated from professional know-
ledge (Wallerstein et al., 1996). This insight is the basis of the reflexive
thesis, namely that in late modernity, knowledge is increasingly about the
application of knowledge to itself rather than to an object. Fourth, and
lastly, the relative democratization of knowledge has been accompanied by
the growing contestability of knowledge claims. As more and more actors
are being drawn into the field of knowledge production, the self-legitima-
tion of the older knowledge elites becomes less certain. In the context of
the risk society, the culture of expertise enters into crisis, with the wide-
spread loss of scientific legitimacy and growing public calls for the account-
ability of science and technology (Beck, 1992).

My thesis, then, is that the current situation amounts to a major epistemic/
cognitive shift. Changes in the mode of knowledge are related to a trans-
formation in cultural models and underlying these changes are more far-
reaching changes in the institutional framework of society. The current
situation is one that requires the articulation of technological and cultural
forms of citizenship to complement the older civic, political and social
rights of citizenship. This thesis is not quite the same as Castells’ argument
concerning the information age or other accounts of the knowledge society
(Stehr, 1994), for these ultimately tend towards a technological determin-
ism. Knowledge is more than information for it has a far broader range of
applicability than information, which is instrumental knowledge: it is related
to the cognitive structure of society. This, too, is one of the major limits of
the theory of the new production of knowledge, a thesis which reduces
knowledge to the application of information (Gibbons et al., 1984). I do
not see knowledge only as a matter of expertise. By knowledge I mean the
capacity of a society for learning, a cognitive capacity that is related to the
production of cultural models and institutional innovation. In the con-
temporary context, the penetration of knowledge into all spheres of life
is clearly one of the major characteristics of the age. We are living in a
knowledge society in the sense that social actors have ever greater capacities
Professional knowledge and lay knowledge are less separate than they used
to be. The idea of the knowledge society refers also to something more
basic: the opening up of new cognitive fields which have a reflexive relation
to knowledge.

In view of the previous analysis, what can we say about the identity of the
university today? The postmodern interpretation (Lyotard, 1984; Crook et al.,
1992; Readings, 1996) would claim that the university has reached its end
and with the closure of modernity has collapsed into a bureaucratic enter-
prise bereft of moral purpose. Its founding cognitive ideas – the universality
of knowledge, the quest for truth, the unity of culture – are becoming
irrelevant and the social and economic reality has instrumentalized the
university to a point that has made its autonomy neither possible nor desirable. The question we now have to ask is what does the future hold? In my view, Readings offers a starting point: the model of the university that prevailed in liberal modernity and which partly sustained the mass university of organized modernity is in decline today, for its presuppositions have been undermined by social change. The disciplinary structure of knowledge and the nation state no longer totally define the cognitive field of knowledge. Consensus on what constitutes knowledge has been replaced by dissensus, and culture, once preserved and reproduced in the university, is more contested than ever before. If the university is not to degenerate into technocratic consumerism by which students become mere consumers of knowledge and the university a transnational bureaucratic corporation legitimating itself by the technocratic discourse of ‘excellence’, it will have to discover another role. However, it is clear that the postmodern position has little to offer in terms of an alternative scenario.

The argument in this book is the following. A new role and identity for the university is emerging around the democratization of knowledge. By democratization I mean the participation of more and more actors in the social construction of reality. Given that the university is no longer the crucial institution in society for the reproduction of instrumental/technical knowledge and is also no longer the codifier of a now fragmented national culture, it can ally itself to civil society. No longer the privileged site of particular kinds of knowledge, it can become a key institution in a society that is coming to depend more and more on knowledge. In liberal modernity, knowledge served the state, providing it with a national culture and professional elites; in organized modernity knowledge serviced the occupational order of mass society while enhancing the power and prestige of the state. Today knowledge has become more important and at the same time no longer emanates from any one particular source. This restructuring in the mode of knowledge implies not the end of the university but its reconstitution. The great significance of the institution of the university today is that it can be the most important site of interconnectivity in what is now a knowledge society. There is a proliferation of so many different kinds of knowledge that no particular one can unify all the others. The university cannot re-establish the broken unity of knowledge but it can open up avenues of communication between these different kinds of knowledge, in particular between knowledge as science and knowledge as culture. Of what would a communicative concept of the university consist?

The university must give expression to the new social bond that is emerging in postmodern society, that is communication. Contemporary society is integrated not by national culture, nor is it integrated by the functional prerequisites of the occupational system, be they those of money or power; it is integrated by communication. Under the conditions of societal complexity, neither values nor roles can integrate society, as Luhmann has argued, for complex societies are instead based on differentiated systems of communication. Historically, the site of societal communication has been
the public sphere, as described by Habermas in his seminal book (Habermas, 1989). As has been well established in the huge reception of that work, the public sphere has been considerably 'refeudalized' or colonized by the media of money and power and all that remains is the 'phantom public sphere' (Robbins, 1993a). While most critics have rejected Habermas's early call for a return to the Enlightenment model of the public sphere, Habermas himself has more recently advocated a critical concept of the public sphere as lying in the oppositional currents in contemporary society (Habermas, 1996). Taking up this development, my argument is that the real challenge of the university is to occupy the space of the public sphere, a position which Habermas himself put forward in debates on university reform in Germany (Habermas, 1969, 1971a,b, 1992; see also Chapter 4). Even though knowledge is more available than ever before in society and also more central to the working of society, it is also more diffuse. The all-powerful mass media tends to trivialize debate and contribute to the weakening of the cognitive capacities of society. The new mode of knowledge production has not led to the articulation of new cultural models capable of exploiting the democratic potential of the transformation in knowledge. Perhaps this is the mission of the university. The university must recover the public space of discourse that has been lost in the decline of the public sphere. In Habermas's epistemological terms, it must relink knowledge and human interests (Habermas, [1968] 1978). But this will involve an extension of the scientific communication community to include lay knowledge as well as rethinking the relationship between the sciences in the light of the end of positivism (Delanty, 1997). In this respect the university is a key institution for the formation of cultural and technological citizenship.

I am not suggesting that the university can provide spiritual, cultural or political leadership for society, for that is not the role of the university. It is the task of the university to open up sites of communication in society rather than, as it is currently in danger of doing, becoming a self-referential bureaucratic organization. Readings formulated this quite clearly in his advocacy of the university as a community of dissensus. Following Lyotard, he argued for the recognition of a distinction between the political horizon of consensus that aims at a self-legitimating, autonomous society and the heteronomous horizon of dissensus. The community of dissensus does not seek an idea of identity, a consensus on the nature of knowledge, or a meta-narrative of unity. ‘the University will have to become one place, among others, where the attempt is made to think the social bond without recourse to a unifying idea, whether culture or the state’ (Readings, 1996: 191). Thus rather than seeking the unity of culture, a consensus-based community of communication, the point is to institutionalize dissensus and to make the university a site of public debate, thus reversing the decline of the public sphere. I agree that the university is only one institution in society having a diminished importance with respect to culture, state and economy, but one whose significance may increase as a result of the diffusion of knowledge within society. Viewing the university as a site of
interconnectivity, communication becomes more central to it. The university cannot enlighten society as the older model of the university dictated. What is needed is a more communicative concept of the university.

Three kinds of communicative interconnecting can be specified: (1) new links between the university and society; (2) new links between the sciences, and (3) changing relations between the university and the state. With regard to the first, the role of the university will change accordingly as more communication occurs between expert systems and public discourse. In this context the university is an important site of public debate between expert and lay cultures. Demands for accountability are growing and the nascent ‘audit culture’ has already made its impact on the university, in particular in the UK (Power, 1997). If the university is to adapt to social change it will have to evolve ways of responding to this and the more general delegitimation of science.

Second, cross-disciplinary communication between disciplines and the sciences as a whole will become more important and will change the internal structure of universities. The principal carriers of the university's socio-critical function, which in recent years in the Anglo-Saxon world have shifted from sociology and politics to literature and history, must be spread out into other disciplines across the sciences (Bender and Schorske, 1997). One of the unexplored tasks of the university is to be a site of interconnectivity between the diverse forms of knowledge that are now being produced. If multidisciplinarity is not to degenerate into an empty and instrumentalized ‘postdisciplinarity’ determined by bureaucratic and financial goals it will have to find new ways of coping with the dissolution of the disciplinary structure of departments. At the moment the solution is purely managerial (Turner, 1999) or entrepreneurial (Slaughter and Leslie, 1997) exercises in ‘academic capitalism’.

Third, with the state becoming increasingly a regulatory agency and less exclusively a provider state, the university will be forced to negotiate with non-state actors. This is one of the most difficult challenges facing the university and is beyond the scope of this book. It will suffice to mention here that one avenue that remains to be explored is the creation of a diversity of universities, designed to fulfill different functions. The solution may be in more and smaller universities rather than in economies of scale. With the retreat of the state from taking responsibility for society, the university can take on a greater role in the articulation of the values of technological and cultural citizenship. Given that this new culture of citizenship must be transnational, the university as a cosmopolitan communication community is ideal for this task.

Finally, I would like to clarify the question of what kind of knowledge is produced by the postmodern university in the age of technological and cultural citizenship. There are four kinds of knowledge, to which correspond four knowledge producers. The university fosters the following kinds of knowledge: (1) research, (2) education, (3) professional training, and (4) intellectual inquiry and critique. The first pertains to basic research and
the accumulation of information. The second relates to human experience and the formation of personality (once known as Bildung). The third concerns the practical task of vocational training and accreditation for professional life, while the fourth deals with the wider public issues of society (Ausbildung) and relates to the intellectualization of society. Corresponding to each of these are the roles of the expert, the teacher, the professional trainer and the intellectual. With respect to citizenship, the domains of education and intellectual inquiry and critique relate to cultural citizenship, and the domains of research and professional training relate to technological citizenship. The fulfilment of these two kinds of citizenship is the social responsibility of the university. To find ways of linking these roles and cognitive frameworks into a communicative understanding of the university seems to be what the university needs to achieve today if it is to be able to take on the task of becoming one of the key institutions in the public sphere and in which citizenship is brought forward on to new levels. Although it may be losing its traditional monopoly on knowledge, the fact is that the university is still the only institution in society where these functions can be found together. It is only in this limited sense that we can speak of the ‘universalism’ of the university.

My overall conclusion is that the central task of the university in the twenty-first century is to become a key actor in the public sphere and thereby enhance the democratization of knowledge. The university is the key institution in society that is capable of mediating between the mode of knowledge, the articulation of cultural models and institutional innovation. The epistemic/cognitive shift that we are witnessing today is one of linking communication in culture, and more generally in society, to the production, organization and diffusion of knowledge. There are many examples of how this is occurring in the world today. In China, for instance, the university was an important site in democratization (Calhoun, 1994) and in the Islamic world the ‘Islamization of science’, which has been produced by Islamic intellectuals in western universities, has been as much a challenge to western values as to Islamic values. This leads Bryan Turner to the conclusion that the university is caught in a contradiction between national culture and cosmopolitanism, for it is still in essence a national institution but it is the nature of knowledge that it cannot be controlled by national boundaries (Turner, 1998). In Mexico in 1999 one of the longest strikes in the history of the university took place and was the site of a major conflict between civil society and the state. In Serbia in 2000 the universities were important sites of resistance to the state. In the twentieth century the university has been an important space in civil society where democratic values and citizenship were preserved in the face of what was often cultural and political totalitarianism. The university in the age of mass education has been a major site for the articulation of democratic and progressive values, for instance of racial equality, human rights, feminism and social democracy. The task of the university today is to continue this tradition into the age of technological and cultural citizenship. In organized modernity the university
was important in shaping social citizenship; today it has the additional task of cultivating technological and cultural forms of citizenship.

Chapter 1 offers a theoretical foundation for some of the arguments that are developed in the course of the book. In it I attempt to locate my approach within the sociology of knowledge and the social theory of modernity. The main thesis advanced here concerns the distinction between knowledge as science and knowledge as culture. My argument is that the university is an institution of both knowledge and cultural reproduction.

Chapter 2 provides an overview of the university in the context of the rise and transformation of modernity. The main legacy is the Enlightenment's reshaping of the classical European idea of the university around a new understanding of knowledge and its role in defining the national state. In this chapter the modern discourse of the 'idea' of the university from Kant and Humboldt to Newman and Jaspers is discussed with respect to some of the main cognitive shifts in the idea of the university.

Chapter 3 deals with the emergence of the mass university in organized modernity, which is the model that has prevailed for much of the twentieth century. In this chapter I look at the university as an institution that exists between the state and capitalism. As an institution of social citizenship, the university is more than a provider of instrumental knowledge. These arguments are put forward through a reading of some of the classic conceptions of the university in the mid-twentieth century, such as the theories of the university of Parsons and Riesman.

Chapter 4 looks at what I call the transformative project, that is the transformation of the cultural project of modernity. My theme is the collapse of the older cultural cognitive models and the creation of new ones as a result of democratization. I argue that with the rise of an adversary culture in the 1960s the university ceased to be merely a transmitter of a received cultural tradition but a transformer. This is discussed with respect to the interpretations of the university of Touraine, Gadamer, Marcuse and Habermas.

Chapter 5 continues the theme of the university as the institutionalization of critique with an analysis of the role of intellectuals. I argue that universities do not simply reproduce social and cultural values but also problematize the cultural models of society. It is in this that the role of intellectuals can be discussed. Intellectuals are not just reproducers but also transformers of society's cognitive structures. The chapter offers a wide-ranging interpretation of the work of Gramsci, Mannheim, Benda, Bloom, Jacoby, Foucault, Said and Gouldner on intellectuals.

Chapter 6 concerns the work of Pierre Bourdieu on education and the university. By means of a reading of his work the aim of this chapter is to draw attention to the university as a set of social practices which serve as a medium of cultural classification. I argue that what is important in his work with respect to the university is his concern with the cognitive structure that lies behind the production of knowledge.

Chapter 7 examines the ways in which the university is moving from dependence on the state towards an embracing of the market. The main
theme is that there is a new mode of knowledge production emerging in
which the user is becoming more important than the producer in deter-
mining the nature of knowledge. The chapter offers an appraisal of the
impact of this allegedly Mode 2 kind of knowledge and discusses the pos-
sibility that it might open the way to a technological citizenship.

Chapter 8 continues the theme of the previous chapter by focusing on
the question of globalization and the restructuring of universities by aca-
demic capitalism. I argue that globalization is bringing about far-reaching
change but this is not to be understood as the collapse of all aspects of
national culture and the university is still largely a national institution. The
persistence of national foundations for knowledge does not hinder the
remarkable growth of global collaboration but makes it possible. Although
the university is in danger of becoming dominated by global corporate
capitalism, it is still an important site of democratization, citizenship and
the cultivation of cosmopolitan virtues.

In Chapter 9 I critically examine some influential theories of the post-
modern university: Lyotard, Bauman, Derrida and Readings. My aim is
to assess the extent to which the thesis of the postmodern university and
the paradigm of deconstructionism offers an alternative model to current
developments encroaching the end of knowledge. Against deconstructionist
approaches, I offer the argument that the university is less ‘in ruins’, to use
Readings’s metaphor, than a site of conflicts and is an essentially open
institution.

Taking up the conclusion of the previous chapter, Chapter 10 explores
some examples of the university as a new cultural battlefield. I argue that
the new production of knowledge is not only a matter of market values, the
arrival of a new technocorporate culture of managerialism and academic
capitalism; it is also about conflicts over identity. The university was the
space for the articulation of new kinds of cultural and political identity
from the 1980s onwards. The older cultural models of society began to
collapse and in the resulting fragmentation of meaning, social groups
began to experiment with new models. I examine some of these, such as
the culture wars around the curriculum, affirmative action and political
correctness, the rise of cultural studies as a new discipline.

Finally, by way of conclusion, I offer an alternative scenario of the role of
the university. I see this to be in essence a communicative role and one
defined largely by reference to the growing salience of cultural and techno-
logical citizenship. The university is founded on the reflexive relationship
of these wider cognitive structures to knowledge.
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The university as a site of knowledge production has always been a central institution in society and mirrors some of the great transformations of modernity in so far as these relate to knowledge, its production, organization, function and status in society. In a sense, the university is a micro-cosm of the broader society. It is reducible neither to power – the state, classes, technology, capitalism – nor to culture, be it that of the Christian religions, bourgeois culture, popular or elite culture; nor is it reducible to science and the academic cultures of knowledge. Rather, the university is an open space in which power, knowledge and culture collide. As a site of knowledge production, the university has been the point of conflict between power and culture. Knowledge is irreducible to either science, power or culture but has an ‘imaginary’ impulse beyond its concrete manifestations in social, epistemic and cultural structures. It is for this reason that the university as a site of knowledge production can be seen as an ‘imaginary institution of society’, to use the phrase of Cornelius Castoriadis (Castoriadis, 1987). As I argue in later chapters, this was not always the case, but to an extent the university since the 1970s has been one of the main locations in society where the ‘radical imagination’ has flourished. Indeed, this was the view of Alfred North Whitehead who, in an essay on universities and their functions, argued: ‘The justification for a university is that it preserves the connection between knowledge and the zest of life, by uniting the young and the old in the imaginative consideration of learning. The university imparts information, but it imparts it imaginatively’ (Whitehead, 1929: 139). The task of the university, Whitehead argued, was to enable people to construct an intellectual vision of a new world and weld together information and experience. It may be suggested, then, that an adequate view of the university must see it as being linked not only to the production of knowledge but also to the deeper level of experience. In this sense the university is a zone of
mediation between knowledge as science (or academic knowledge) and cultural cognition.

In this chapter I am principally concerned with the question of knowledge as a social and cultural category and want to relate changes in knowledge to major social transformations in modernity. Taking this broader view of knowledge as embedded in, but at the same time transformative of, social and cultural structures, I shall attempt to outline a theory of cognitive shifts. In this view, a cognitive shift occurs when a change in knowledge production leads to changes in cultural and social structures: changes in the mode of knowledge bring about the articulation of new cultural models leading to institutional innovation. My aim is to demonstrate that in these shifts the function of the university changes, and that in the present period there is a cognitive shift occurring which is leading to the formation of a university based on what I call social interconnectivity.

I begin by placing these arguments and those which will be developed in subsequent chapters in the context of theoretical developments in epistemology and, more specifically, in the sociology of knowledge. In a second step I outline the idea of cognitive shifts in the context of a middle-range theory of modernity. In a third step I apply these ideas to the university in modernity. This approach is intended to provide a framework for the remainder of the book.

Rethinking the sociology of knowledge

The sociology of knowledge has its roots in classical French sociology, and has even deeper roots in late Enlightenment thinking. In the Enlightenment spirit of Condorcet and later of Saint-Simon, Auguste Comte conceived of the entire evolution of society in terms of the development of forms of knowledge of which the final stage would be the positivistic stage, by which he meant the coming of a society founded on knowledge. Inspired by Hegel, he developed a sociology that saw societies undergoing change accordingly as their systems of knowledge developed. His law of the ‘three stages’ describes the process by which societies progressed from the theological stage or traditional stage (when magical or pre-reflective kinds of knowledge were dominant) to the metaphysical or modern stage (characterized by rational and abstract knowledge such as conceptions of sovereignty and law) and finally to the positive or ‘postmodern’ stage (when modern experimental science becomes the dominant form of knowledge).

Another origin of the sociology of knowledge can be traced to the work of Emile Durkheim who saw knowledge as a social construction and related to the cultural system of meaning. Unlike Comte, Durkheim was more concerned with the cultural significance of knowledge as a cognitive structure and he did not see knowledge as the primary feature of modernity. He did not intend this to mean a complete identity between knowledge and society to the point that all knowledge claims are relativistic (Schmaus,
Social knowledge for Durkheim was based on the observation of universal structures which could be uncovered by scientific knowledge. This peculiarly French positivistic tradition, which assumed the separation of science and culture, was taken up by his successor at the Sorbonne, Georges Gurvitch, who in a famous work first published in 1960, The Social Framework of Knowledge (Gurvitch, 1971), established the foundations of a systematic sociology of cognitive systems dealing with such forms of knowledge as knowledge of the external world, knowledge of the Other, political knowledge, technical knowledge and common-sense knowledge. While some of these early developments were greatly influenced by anthropology, with the work of Lucien Levy-Bruhl being of particular importance, the modern sociology of knowledge received a major impetus from Karl Mannheim who concerned himself with the social process of ideology and the limits and possibility of sociological analysis (Dant, 1991). Although Durkheim's work did suggest a broader concept of knowledge, such as the Comtean one, the sociology of knowledge in fact developed under Mannheim's influence and tended to reduce knowledge to the world of ideas, in particular ideologies associated with particular groups in society.

Before commenting further on Mannheim's influence I wish to allude to another, and older, classical tradition dealing with the confluence of epistemology and knowledge, namely the tradition begun by Hegel and taken up by Marx. The phenomenological constitution of knowledge was Hegel's central philosophical concept. In the Hegelian tradition, knowledge did not take the objective cognitive form it did in the French tradition from Comte to Durkheim. Rather than see knowledge as fixed systems of thought or as cultural models attached to social structures, Hegel saw knowledge as part of the self-constitution of society and the progressive forms it took were forms of self-consciousness. Knowledge and self-reflection were mutually entwined. This conception of knowledge was obscured in Marx's critique of Hegel and the consequent reduction of knowledge to ideology. Yet, it has remained an influential part of western Marxism and of critical theory and their notions of knowledge as consciousness-raising. The mainstream sociology of knowledge has tended to be regarded by Marxists as politically conservative, as is best represented in Adorno's critique of Mannheim or in Lukacs's revision of Marxism in the 1920s (Adorno, 1983). In one of the later expressions of western Marxism, Herbert Marcuse characterized all forms of knowledge as ideological (Marcuse, 1964). The possibility for a more nuanced understanding of knowledge was thus blocked in the Marxist tradition. Yet, the Marxist approach, with its Hegelian roots, contained the basic ideas for a constructivist sociology of knowledge. In this regard, of importance is the debate on theory and practice, which roughly corresponds to knowledge and action (Habermas, 1972).

Of these four classical conceptions - Comte, Hegelian-Marxism, Durkheim and Mannheim - there is no doubt that the latter was the most influential in shaping the dominant tradition in the sociology of knowledge. Mannheim established the foundations of a more rigorous sociology of knowledge as
an analysis of how social groups construct systems of knowledge (Mannheim, 1936, 1952; Wolff, 1993; see also Chapter 5). Mannheim’s approach was very influential in Europe, though not so in the United States where it was met with considerable resistance owing to its concern with the broader context of worldviews. Mannheim in fact had a greater impact on Marxist thinking – for instance on the work of Lukacs – than on American empirical sociology, not surprisingly given the concern of western Marxism from the 1920s with ideology, but since Mannheim gave no place to the dialectical moment the Marxist and Mannheimian approaches ultimately diverged. His ideas had a strong influence on Norbert Elias who brought the tradition forward, but in a new key, and there is some indication today of a more general rehabilitation of Mannheim’s work. However, in the formative period of the sociology of knowledge, two quite separate approaches emerged, neither having much to do with the classical founder of the sociology of knowledge.

On the one side, there is the positivistically inclined tradition dealing with the more narrowly focused study of communication, public opinion and science and the sociology of social groups, such as the sociology of professions and intellectuals. In the United States, Robert Merton’s approach, as represented in his influential 1938 study, Science, Technology and Society in Seventeenth Century England, offered an alternative to Mannheim’s concern with ideas (Merton, 1970; see also Merton, 1973). Mannheim had excluded science itself from the domain of the sociology of knowledge. In effect, Merton reduced the sociology of knowledge to a more narrowly conceived empirical sociology of science within a broadly functionalist framework.

On the other side was the quite separate approach best associated with Peter Berger and Thomas Luckmann’s well known book The Social Construction of Reality (Berger and Luckmann, 1967). In this tradition, which is rooted in the phenomenological sociology of Alfred Schutz, the sociology of knowledge is radicalized by a rejection of a focus on systems or bodies of knowledge, science, political ideologies, utopias and systems of ideas in favour of a more hermeneutic/phenomenological turn to common-sense knowledge (Schutz, 1967). In this rejection of Mannheimian sociology, Mertonian sociology of science and the American empirical sociology of knowledge, the cognitive dimension to knowledge, that is the basic cultural dimension which is necessary for the constitution or construction of all systems and bodies of knowledge, becomes the central concern of the sociology of knowledge. Schutz did not use the term the sociology of knowledge as such for his project, which also had resonances in the work of Piaget and Wittgenstein who wrote about the deeper cognitive and linguistic structures upon which all knowledge is based. This approach, as represented by Berger and Luckmann (1967), Cicourel (1973) and much of the ethnomethodological tradition, is characterized by its ‘constructivist’ stance with regard to knowledge as rooted in deeper cultural complexes and has laid the basis of much of the more recent constructivist sociology of knowledge, and the relatively new sub-discipline, social studies of science and
technology (Mendelsohn et al., 1977; Stehr and Meja, 1984). Adopting constructivist theory, a whole variety of theorists – Bloo (1976), Knorr-Cetina (1981), Gibbons et al., 1984, Latour (1987), Woolgar (1988), Fuller (1993), Nowotny (2000) – have produced influential works on the social production of technical knowledge and expertise. In the spirit of this constructivist turn, the sociology of knowledge has also found its way into feminist epistemology (McCarthy, 1996) and the sociology of social movements (Eyerman and Jamison, 1991) and has led to a reinterpretation of the history of sociology (Strydom, 2000) and historical epistemologies of concept formation (Somers, 1996, 1999). Thus, whereas Mannheim focused on ideas and later Merton more on knowledge as science (Wissen), Schutz, and following from his lead, Berger and Luckmann, looked at the deeper cognitive construction of knowledge, that is knowledge as cognition (Erkennen/Erkenntnis).

From a different perspective, the sociology of postindustrial society, with major contributions coming from Bell (1974), Touraine (1971a) and Castells (1996) has produced studies on the role of knowledge and information in contemporary society. According to the latest of these, we are now living in what is in essence an information society, a society characterized by the centrality of knowledge (Webster, 1995). One of the main challenges for the sociology of knowledge is to link these analyses of the postindustrial or information society to the constructivist sociology of knowledge. So far, no explicit attempt has been made to do this, but some intimations can be found in the social theory of modernity.

The social theory of modernity from Weber to Foucault, Bourdieu, Touraine and Habermas has offered ways of linking knowledge and intellectual paradigms to major social transformations (Beck, 1992; Wagner, 1994; Delanty, 1999, 2000a). In particular, the work of Foucault (1980) on knowledge has been pivotal in linking knowledge to historical epistemologies and theories of power and discourse. According to Foucault, discourses are all-inclusive language games which are ‘productive’ of knowledge and of power. Discourse does not offer the possibility of communication, as it does for Habermas for whom it contains unredeemed validity claims. For Foucault, in contrast, discourse is a closed system of power and, in so far as power and knowledge are co-extensive, knowledge does not have an emancipatory moment. The human actor is condemned to discourse and therefore to power, which is coeval with the discourse, its rules and forms of knowledge. The sociology of Bourdieu has not been too far removed from this approach to knowledge as discourse. For Bourdieu, knowledge is embedded in cognitive structures which are linked to the field of power and the struggle of social groups for supremacy (Bourdieu, 1984; see also Chapter 6).

Other approaches in the philosophy of social science see the connection between knowledge and power in different terms but are all agreed that knowledge is shaped by deeper cognitive structures. The diverse approaches of Kuhn (1970), on the one hand, and Apel (1980) and Habermas ((1968) 1978) on the other have opened up ways of seeing how social interests and the wider cognitive structures of society enter into the world of science.
the case of Kuhn, this was something threatening closed paradigms based on established forms of consensus on what constitutes a paradigm (Fuller, 2000). For Apel and Habermas, the recognition of social interests and cognitive structures within the scientific community is essential to the formation of a reflective and socially responsible ‘scientific communication community’, to use Apel’s term (Delanty, 1997). In works such as his influential Knowledge and Human Interests published in 1969 (Habermas, 1978), Habermas’s concern with ‘knowledge’ was not with knowledge as Wissen but knowledge as Erkenntnis (as cognition). In this context, mention must also be made of the work of Roberto Mangabeira Unger. In his Knowledge and Politics, Unger established the foundations of a radical theory of emancipatory knowledge rooted in a constructivist social theory (Unger, 1975). In these works a concept of knowledge as cognition is present, that is knowledge as a cognitively constructed system.

The concern with the broader context of knowledge is also present in American pragmatism, though there the focus was more with the relation of knowledge as science to public interests. This question of public role was also articulated within sociology by Robert Lynd, one of the leading figures in the Chicago School. His Knowledge for What? questioned the academization of social scientific knowledge (Lynd, 1939). The idea of knowledge as a public utility could be said to be central to the unwritten history of early American social theory. It was reflected in the writing of John Dewey (1930) and the Polish sociologist Florian Znaniecki (1968) in his The Social Role of the Man of Knowledge, first published in 1944. However, in the pragmatist tradition the concern with knowledge was largely confined to its social role rather than its cultural or cognitive dimension.

In sum, then, debates in the sociology of knowledge have established a conception of knowledge as linked to social and cultural structures. While views differ on the nature of this relationship and its political implications, the sociological approach to knowledge forces us to see knowledge as a socially constructed structure having a creative as well as an intellectual dimension. But knowledge is more than a social construction; it is also an open structure that admits of internal development. Indeed, this recognition of the openness of knowledge and of cognitive structures was the central point of much of Jean Piaget’s work which had a huge impact on such social theorists as Habermas and Apel. This raises the question of learning mechanisms, to which I now turn.

Cognitive shifts and the social theory of modernity

I would like to begin by distinguishing among the mode of knowledge production, cultural models and the institutional framework. By a mode of knowledge I mean the production of knowledge as a set of discourses cutting across the institutional and the epistemological. Knowledge is not simply
self-producing but occurs in a social and cultural context; it is a system of social relations and a category of cultural self-understanding and communication; or, as Foucault said, a system of power and a discursive practice (Foucault, 1980). Much of social life is based on knowledge: the production of food, technology, communication systems, security, the appropriation of nature, sport and consumption (Goldman, 1999). I am using the term knowledge, too, in the broader sense of a mechanism of collective learning, that is the accumulation of knowledge in groups, institutions and organizations. In this sense, then, knowledge refers to the cognitive structure of society in its cultural and institutional forms in so far as this relates to learning mechanisms. This concerns then the question of cultural models, the deeper cognitive basis of knowledge.

The concept of a cultural model refers to the interpretative models by which a society gains knowledge of itself and offers objective frames of reference for what Max Weber called value orientations and the social struggles for symbolic capital, to use Bourdieu’s term. Cultural models, if we follow theorists as diverse as Weber, Castoriadis, Touraine and Habermas, are represented in major principles of rationality, imaginary significations, cultural value spheres, such as those of morality, religion and art, and historical narratives. The main cultural models of society are to be found in the cognitive, the normative and the aesthetic structures, but below these is what Bourdieu has called symbolic capital and also what an older sociology called values and norms (on Bourdieu see Chapter 6). Cultural models are thus broader than the mode of knowledge, for while including the cognitive they also entail aesthetic and moral structures. I shall be using the term to refer principally to the cognitive structures that define the basic conceptual structures of knowledge (see Holland and Quinn, 1991).

Finally, the institutional framework refers to the mode of production and the accumulation of wealth, the regulation of populations and social relations, and government. The institutional framework concerns social practices that make up the economic and political structures of society as well as the social institutions of the life world.

This three-fold distinction among knowledge, culture and society has the advantage that it gives a central role to the sociology of knowledge (and a basis for a sociological theorization of the university). In this view, knowledge is linked (largely through the institution of the university) to the cognitive complexes of culture and to social practices and institutional structures. The mainstream sociological approaches influenced by Mannheim and Merton tended to marginalize knowledge, reducing it to a body of ideas or ideology on the one side, or on the other, to science. Weber, for instance, was greatly interested in the role of knowledge but he subsumed it either under processes of intellectualization and instrumental rationalization— that is principles of rationality— or under the cognitive value sphere in the context of value pluralization and disenchantment. Durkheim conflated knowledge with culture and thus did not appreciate the constructivist tension between both. Marxists have, on the one side, reduced knowledge to
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an epiphenomenon of the mode of production and, on the other, reserved for it a quasi-essentialistic role as class consciousness. Mannheim reduced knowledge to the ideas of particular groups. Finally, in the classical tradition, Parsons recognized the importance of knowledge and the university as a subsystem in the zone of interpenetration lying between the cultural system and society. The ‘university is the trustee of cognitive culture’, argued Talcott Parsons and Gerald Platt in The American University (Parsons and Platt, 1973: 148). But the main weakness of the Parsonian theory was its inability to see how knowledge is contested, and its relation to culture and society is therefore prone to conflict.

This is precisely what Alain Touraine has remedied in his important book The Self-production of Society, published in 1973. In this work he distinguished between knowledge, the cultural model of society, and accumulation (Touraine, 1977). Taking up some of his ideas, though more from the perspective of the university than social movements, which was Touraine’s concern in that work, I am stressing the importance of knowledge as a mode of social organization and as a ‘social epistemology’, that is as a cognitive structure that is always more than knowledge as science (Fuller, 1993, 1994). This approach recalls that of George Gurvitch who, in the Social Frameworks of Knowledge, distinguished among the mode of knowledge, cognitive systems and social frameworks (Gurvitch, 1971). However, in his approach, which was heavily influenced by Durkheim, there is no place for the internal development of cognitive systems or learning processes in society. The cognitive dimension to knowledge, and hence constructivism, is much more pronounced in the work of Touraine for whom the mode of knowledge and cultural models are two moments in the formation of modern society. Throughout this book I lean heavily on the distinction between knowledge as science (Wissen) and knowledge as a cognitive system (Erkenntnis), thereby allowing a theorization of the university as a mediating site between these two levels of knowledge.

Such a theorization of knowledge allows a perspective on cognitive shifts in modernity. By this is meant more than just changes in the mode of knowledge; it encompasses the wider transformation of culture and society. A cognitive shift entails a shift from the potential for learning that is contained on the level of knowledge to its socio-cultural appropriation on the level of cultural models and institutional innovation. A cognitive shift thus involves an evolutionary change in the cultural model and in the institutional framework. As such it is a contrast to a mere change in the mode of knowledge: for what is available on the level of knowledge may not penetrate into the cultural model of society, and if it does, it is also a further question as to whether it will be taken up in social structures in bringing about institutional innovation. Societies do not learn in the same way that individuals learn (Habermas, 1979; Strydom, 1987, 1992, 1993; Eder, 1999). Durkheim recognized this asymmetry between educational change and social change in the Evolution of Educational Thought but never followed up his conclusions (Durkheim, 1977).
Modern societies are learning societies in that a high degree of knowledge has been accumulated on the level of the mode of knowledge and much of it has become integral to the cultural model of society. Yet, as Klaus Eder has shown, this does not mean that society has availed of such collective learning, for learning does not always lead to evolution, that is change on the level of culture does not necessarily translate into social change (Eder, 1999). I am suggesting, then, that the idea of a cognitive shift refers to such major social transformations as those in which developments in learning, that is changes in the mode of knowledge, have led to the articulation of new cultural models and social evolution (in the sense of institutional evolution). This notion of a cognitive shift related to developments in learning and evolution has been explored by Santos (1995) who has introduced the idea of a ‘paradigmatic shift’ in law, science and politics by which knowledge as emancipation gains ascendancy over knowledge as regulation. The notion of a cognitive shift is similar in that it refers to the confluence of change in the mode of knowledge, cultural models and institutional frameworks.

It has occasionally occurred in history that the mode of knowledge has led to major social change, for instance in the early modern period from the Renaissance to the Reformation, which I shall call classical modernity. The mode of knowledge, which may be termed revolutionary knowledge, led to geographical, medical and astronomical discoveries, new techniques in painting, music and architecture, philosophical argument and religion. These changes in knowledge had major repercussions in the articulation of new cultural models and ultimately in the institutional framework of society, leading to the formation of modern nation states and modern forms of political authority. We can thus speak of a cognitive shift occurring in the period that culminated in the American and French Revolutions, which brought to a close the early modern period and constituted the first great crisis of modernity. In the early modern period cultural modernity emerged largely because of the great changes in the mode of knowledge that began with the New Learning in the Age of Discovery. With the French Revolution, classical modernity came to a close when its basic cultural model, the humanist idea of the unity of culture and the overall unity of culture and nature (which Toulmin (1992) has called the idea of a cosmopolis – the vision of a society as perfectly ordered as the laws of nature), became unsustainable. At about this time, too, the limits of its model of knowledge – revolutionary, emancipatory and humanist knowledge – was challenged by the post-Enlightenment era of nineteenth-century reform, historicism and positivism.

In the next period, liberal modernity, roughly from the French Revolution to the end of the nineteenth century, a new cultural model emerged around secularism and cultural differentiation. As a result of secularization and rationalization, the nineteenth century moved to a new cultural imaginary which was expressed in the ideal of autonomy in rights and in the pursuit of knowledge. Bourgeois or civil society replaced the court society,
and in the mode of knowledge the unity of knowledge of classical modernity shifted to the neohumanist, positivist and Enlightenment aspiration towards the autonomy of knowledge. This was encapsulated in the philosophy of Hegel and Comte, and was present, too, in Kant who argued for the separation of the laws of nature and of morality. Although their conceptions of knowledge were very different, Hegel and Comte saw history in terms of the progressive self-constitution of humanity by forms of knowledge. In the modern period, the form of knowledge was held to be one leading to the self-legislation of knowledge. Liberal modernity ended in the mood of crisis that set in towards the end of the century with the fin de siècle and the culture of anxiety that surrounded the First World War, which marked the second crisis of modernity: the rejection of truth, autonomy and rationality.

The second crisis of modernity led to the decline of liberal modernity and the arrival of organized modernity which was to span the twentieth century, until its closure in the 1970s (Law, 1994; Wagner, 1994). In this period, which is one of institution building and nation state formation, we have the emergence of a new cultural model, the ideal of social integration, a development related to the replacement of bourgeois society by mass society. The mode of knowledge that prevailed over much of the twentieth century was one of differentiation, or specialization, within disciplinary boundaries administered by experts and which was part of wider processes of societal modernization (Wagner et al., 1991a,b). This age of organized modernity has generally been held to come to a close in the 1960s and 1970s with the rise of developments associated with postmodernism, colonial liberation, the rise of new social movements and postmaterialist values, democratization, population growth and migration, ecological crisis and, more recently, globalization and complexity. In this period modernity enters its third and, for some, final crisis. The cultural model of integration has been challenged by new forms of exclusion and fragmentation; the mode of knowledge, the self-legitimation of expertise, has been challenged by the universal crisis of the risk society and processes of de-differentiation have undermined the logic of differentiation associated with modernization.

Now that this crisis is beginning to subside and give way to a new social formation, whose contours are as yet uncertain, we can speak of the emergence of a new mode of knowledge and a new cultural model within the context of a changing society. I return to this in later chapters, suggesting the notion of a cognitive shift in contemporary society analogous to that which appeared in early modern society. Briefly, it can be characterized as a movement towards social reflexivity and discursivity which comes with the opening up of new public spheres and the empowering of social actors by knowledge. Knowledge is neither a tool of domination, an ideology, nor a neutral category but is embedded in contemporary cultural models and in much of the institutional framework. In the sketch that follows I apply the idea of cognitive shifts and the social theory of modernity to the university as one of the most important sites of the articulation of the new mode of knowledge.
The university and the transformation of knowledge

In the early modern period, in classical modernity, the university was not central to the production of knowledge. In the Renaissance the university certainly played a role in shaping the New Learning but it was less important in the Enlightenment where the mode of knowledge was formed outside the academy. In this period, knowledge producers were mostly extra-institutional; they were men of letters, free-floating intellectuals and often members of the aristocratic orders or the reformed clergy. The mode of knowledge that emerged was one of revolutionary, emancipatory knowledge. It marked a turn to the subject as the measure of truth, in the sense that knowledge became something that was publicly available. The Renaissance, Reformation and the Enlightenment were all expressions of a preoccupation with the independence of knowledge from political and clerical authority. The rise of empirical method, on the one hand, and of modern rationalism on the other epitomized this trend away from dogmatism: the essence of inductive experimental science was that only that which could be subject to experimental verification was to count as knowledge; rationalism, in a similar way, declared that knowledge in its most certain form derives from the certainties of the mind. Although these epistemologies have become tainted as positivistic, it must be remembered that in their time they were emancipatory in their postulation of the democratic nature of knowledge as something available to any human being as opposed to the prerogative of an institutional authority. But as knowledge shifted away from the ancient authorities it came increasingly under the sway of the nascent absolutist state. A struggle for institutionalization emerged in classical modernity with the foundation of the royal academies and state-supported institutions of research from the mid-seventeenth century onwards and two forms of knowledge emerged, one institutionalized in the university and the academy, and the other in the extra-institutional in those public spaces in civil society that were the social basis of the Enlightenment. It has been the fate of history that the second form was to lose its epistemological relevance and many forms of knowledge, for instance sociology, had to choose with which side they would align themselves (Lepenies, 1988). In this period, too, the university shifted from the Church to the state in its basic allegiance, and as it did so it began to disconnect itself from society.

With the emergence of liberal modernity from the end of the eighteenth century, the university became more important as a knowledge producer, serving the nation state with professional elites and as a codifier of national culture. The neohumanist university, such as the Humboldtian university in Germany or the liberal arts college in the Anglo-Saxon world, was based on the idea of the autonomy of knowledge, a view of the university that received one of its most famous formulations in Kant’s vision of the modern university as the protector of critical reason (Kant, 1979). This was a development of the Enlightenment ideal of knowledge and reflected, too, the
broader humanist conception of knowledge, but differed from it in that it was heavily influenced by the new cultural model which was to dominate the nineteenth century: the differentiation of cultural spheres and the pursuit of truth. In a differentiated age, which Max Weber described as disenchanted in the sense of the irretrievable loss of an overarching principle of unity, knowledge becomes autonomous, an end in itself. In the neohumanist university this self-legislation of knowledge is reflected in the unity of teaching and research, which together serve the pursuit of truth, although the actual nature of this truth and the possibility of its attainment became increasingly obscure as the century progressed. Yet, the nineteenth century held on to the illusion of truth and the spiritual mission of knowledge. The differentiation of knowledge, for instance the emergence of hierarchies of knowledge and the separation of facts and values, did not challenge the still powerful ideal of truth. Natural theology was very influential in the universities in the second half of the nineteenth century (Reuben, 1996). Institutional secularism was not always mirrored in intellectual secularism, a reminder too that by far the most important source of Enlightenment ideas was the reformed Churches. In Catholic France, where the Enlightenment was more fiercely anti-clerical, the university was marginalized by the Grandes écoles, created by the post-revolutionary state, where the Bildungs ideal was totally absent. But France was the exception and the nineteenth-century conception of the university was on the whole dominated by the Kantian ideal of reason and the yet more influential von Humboldtian idea of culture. In Victorian England, literature served the function of philosophy in Germany; but there, too, the von Humboldtian idea was influential, as evidenced by Matthew Arnold, whose Culture and Anarchy transmitted the German tradition (Arnold, 1960). In the conservative English tradition, as in the German, from Arnold to Eliot and Lewis, the university was the custodian of culture which alone could provide spiritual leadership in an industrial age. Nevertheless, one qualification must be made. The radical, reformist zeal of many Victorians – from Bentham to Mill and Spencer – on the whole was suspicious of high culture as an end in itself, preferring a more utilitarian view of knowledge as leading to social and moral amelioration. Knowledge for the utilitarian cast of mind was not an end but a means to an end, the ends of happiness, social prosperity or peace.

In organized modernity, from the late nineteenth century and extending until the 1960s and 1970s, the founding ideals of liberal modernity are profoundly shaken. The ideas of fin de siècle destroyed the cultural model of liberal modernity and the older mode of knowledge collapsed with the emergence of a new one that was part of the new social order of mass society. Natural theology and the spiritual value of knowledge disappeared; logical positivism and disinterested inquiry became all-powerful. The new mode of knowledge demanded a far stricter separation of facts and values than before. It was one that stressed specialization and discipline-based knowledge within the confines of the national systems of governance above all else. The neohumanist integration of teaching and research became
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challenged by the new ideal of the research university and sharply defined disciplines. The twentieth century was the era of the expert, and professional society replaced the last remnants of Enlightenment humanism. The university acquired a new function in society: to supply a trained labour force. The teacher and the researcher acquired a new role: professional training. It is no longer a matter of the education of the whole person, as in the von Humboldtian ideal of Bildung or the ideal of pastoral care in the liberal arts college, but of Ausbildung - vocational training. The university affirmed the new cultural model of social integration in that it was an institution which serviced the economic needs of society, national prestige and defence as well as the production of the technological expertise. A famous expression of this was Clark Kerr’s *The Uses of the University* (Kerr, 1963) but many other visions of the university from this period retained the older idea of autonomy, such as the work of Shils (1997) and Riesman (1998) for whom knowledge still had a moral role derived from the essential unity of the university.

Late modernity begins with the crisis of organized modernity from the 1960s onwards. This is best portrayed as a movement from crisis to transition in which a cognitive shift can be discerned. Some of the key aspects of this can be summarized as follows. There is a gradual disintegration of the older mode of knowledge based on disciplinary knowledge institutionalized within national frameworks and legitimated by the cultural models of modernization, specialization and routinization. First, knowledge which has historically been linked to the national state is now, under the impact of globalization, being produced by other institutions in society. Second, the structure of disciplinary knowledge within the academy was based on the supposition of two entirely different subject areas, external nature and human nature, the basis of the ‘two cultures’. Today, nature has re-emerged as a new theme in natural and social science. As a construction, nature, like society, cannot be conceived in terms of the categories of modernity (Eder, 1996; Wallerstein et al., 1996). Aside from this, there is a wider transformation within the disciplinary structure of knowledge within the university (Goodman and Fisher, 1995; Wallerstein et al., 1996; Bender and Schorske, 1997). Third, new conceptions of democracy and citizenship are now emerging to challenge the older visions. Cultural and technological citizenship is centrally addressed to issues relating to knowledge (Delanty, 2000b). As a result of mass education, the media and technological developments in the postindustrial society, knowledge is more available than ever before and is at the same time more and more a functional necessity. But with this expansion in knowledge has come its growing contestability. Dissensus in politics and cultural values has penetrated the constitution of knowledge. Fourth, in places of debates on differences between the sciences, what is becoming more relevant is the question of the relationship between professional and other kinds of knowledge, such as lay knowledge. With the widespread de-legitimation of science and the culture of expertise this is becoming of central importance in the reorientation of knowledge, with
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major implications for the university. It is a question of the public relevance of professional knowledge.

I am suggesting that something like a cognitive shift is occurring today in the decline of the Enlightenment’s ‘republic of science’. With the rise of critical publics the demand for democratization has penetrated the heart of cognitive rationality in calls for the public accountability of science. This cognitive shift can be seen as a communicative one, but one that is challenged by a neoliberal understanding of the university. Once standing on the secure ground of the Enlightenment and the national state, the university now finds itself occupying the uncertain terrain of shifting forms of knowledge at precisely the time that the nation state is entering a period of decline. The age of Big Science, has suffered the fate of Big Government: its legitimation has gone but the reality is still with us. No longer protected from democracy, the logic of communicative rationality has entered the academy calling into question the old cognitive models of neutrality, universality and objectivity.