It will not have escaped your notice that there are many people who claim we have entered a new age, governed by a 'new paradigm' where society and its economic relations are no longer primarily organized on the basis of material goods. Rather, they claim, now everything is organized on the basis of information and knowledge, or soon will be. Often referred to as the arrival of a (global) information society, sometimes discussed as a 'weightless world' or a new network society, in the past this change has been characterized as the arrival of a postindustrial or service society. In this book I take some key elements of this contention and argue there is less to these changes than tales of transformation suggest. Simply put, while we may be living through a period in which the form and practices of our lives are changing in many ways, the underlying substance of our socioeconomic system remains largely the same.

We are often told that new information and communication technologies (ICTs), perhaps best represented by the internet, are changing everything: this is a revolution, a remaking of the world. All we previously knew about our societies is useless for thinking about this new world. But, despite claims that 'grand narratives' are obsolete, the vision of an information society itself often takes the character of an all-encompassing story about this new age. For many this prompts celebration of an approaching utopia, while for others the developments described indicate progression towards a dystopian world like that set out in *Bladerunner*. However, I am sceptical: despite the claims about revolution (repeated on

television, in the papers we read and even among ourselves), our lives in many ways remain relatively unchanged.

Most of us still need to go to work, where there remains an important division between those who run the company and those who work for it, not least in terms of rewards. When we look at what allows some of us to become rich and the rest of us merely to get by on our pay or pensions, this still has something to do with who owns what. In discussions of the information society, significantly, one of the changes most often identified has been in the sorts of things which produce the greatest wealth. In the past it might have been (part) ownership of a company (through stocks and shares) or land and buildings; now it is as likely to be the rights to a particular artistic creation (films, songs, books) or the rights to an innovative technical process. This new property is called intellectual property, and although different from material property in many ways, it still leaves us divided between those who have some of significant value and those who have only a little or none. Thus, while all sorts of claims are made about the ways in which our lives are being transformed by new ICTs, many social patterns (especially how wealth is distributed) continue as before. When we strip away the shiny new products and services which are available to us in ever increasing quantities, much about the world has not changed.

This is a sceptical view of the information age. Of course it is not the only view, but it is one that makes more sense to me than the celebratory chorus I hear so often when these subjects come up in the media, on the internet or when I am talking with colleagues and students. Let me be clear: I am not arguing that nothing is changing, but rather that these changes are not as profound as they are often presented. Underlying these shifts I see many continuities and it is those I wish to emphasize. I want to explore these continuities because I do not accept that the hard-won knowledge of modern life developed in the past is now outmoded or useless. The assertion that we are entering a new age attempts to neuter or defuse social criticisms which are as salient now as they were in the last millennium. I do not intend to deal with every variant of the information revolution thesis nor every author who has written about it in the last forty years. This would be a mammoth task and subject to diminishing returns. What I aim to do is utilize those authors who have made significant statements, and perhaps more importantly, those whose work has been often cited or used in subsequent discussions of the information age.

In the rest of this chapter I briefly discuss the development of the idea of an information society, and conclude by introducing the four key claims that are frequently made about this new era and which I discuss in the rest of the book. These have been often restated in the past thirty years and they are:

- that we are experiencing a social revolution;
- that the organization of economic relations has been transformed;
- that political practices and the communities involved are changing;
- and that the state and its authority are in terminal decline.

These four claims are related to each other. The notion of a social revolution is linked to changes in the ways economic relations are organized. Changes in economic relations are often related to shifts in the political landscape, and these shifts are unlikely to leave the role of the state unaltered. My criticisms of these assertions therefore represent related elements of my underlying argument that while the forms of activity have changed their substance remains the same. I recognize that the world cannot be divided so easily and clearly into what is changing and what is not, and neither is there a clear and distinct division between form and substance. Nevertheless, although a simplification, the distinction between changes in form and substance sums up my position so well that I am loathe to avoid it completely.

The Idea of an Information Society

The idea of an information society started to appear in accounts of contemporary society in the early 1960s, and until the 1980s claims made about the information revolution were subject to extensive interrogation. However, in the most recent rush to identify the (imminent) arrival of the global information society, criticism has been much more muted. Early analyses of the information society, from Fritz Machlup's groundbreaking study in 1962 of *The Production and Distribution of Knowledge in the United States* to Marc Porat's work on *The Information Economy* in the mid-1970s, focused on the United States. Only after 1976 did studies start to appear which looked outside America (Poirier 1990: 247–9). And while in the early 1990s interest seemed to be on the wane, the emergence of the

internet as an increasingly mass medium has prompted a major expansion of interest in the information society. Consequently, we can identify three periods of analysis:

- 1 from 1962 to the mid-1970s analyses concentrated exclusively on America;
- 2 from the late 1970s to the early 1990s, as ICTs were deployed extensively in the rich or developed states, analyses looked further afield;
- 3 and now, analyses focus on the potential and promise of the internet, leading to the current widespread interest in the global information society.

Unsurprisingly, as the new ICTs became more and more widespread so speculation about their social impact expanded.

Where the global implications of the information society were recognized earlier, this usually focused on the problem of new knowledge (ideas and technologies) flowing (or not) from the centre outwards to developing countries; knowledge exports rather than the more recent notion of a networked world (Porat 1978; Dizard 1982: 148ff.). Indeed in the early 1980s both the United Nations Educational, Scientific and Cultural Organization (MacBride et al. 1980) and the Club of Rome (Friedrichs and Schaff 1982) produced semicritical reports on ICTs and global society. However, more recently a number of powerful international governmental organizations have started to emphasize the benefits of the (global) information society and its links to economic development. To take three examples, the emergence of the information society was the defining logic for the 1998–9 World Development Report: Knowledge for Development (World Bank 1999), a major report to the United Nations Commission on Science and Technology for Development, Knowledge Societies: Information Technology for Sustainable Development (Mansell and Wehn 1998) and policy statements by the Organization for Economic Co-operation and Development such as *Towards* a Global Information Society (OECD 1997).

Although analysis of the idea of an information society got underway in earnest in the 1960s, the recognition of the economic value of knowledge and/or information was hardly unprecedented. Frank Knight explicitly accounted for the importance of knowledge activities and the workers who performed such tasks in *Risk*, *Uncertainty and Profit* published in 1921 (Poirier 1990: 246). And in 1959 Edith Penrose made the managerial control and development of knowledge resources a central element in her *Theory of the*

Growth of the Firm (Penrose 1995). But the realization that knowledge or information might be valuable is, of course, much older. For centuries patents have been awarded to valuable ideas, copyrights have constructed exclusive rights to creative works and trademark protection has recognized the value to be gained from the exclusive use of a maker's mark (Sell and May 2001). But, until the last third of the twentieth century, information was regarded as one input or resource among many, while knowledge was frequently assumed to be uncontainable. With the posited emergence of the information age, information is now becoming the input on which entrepreneurs concentrate, while the importance accorded to the control of (and access to) knowledge increasingly means that it *must* be contained, halting its 'free' distribution. It is these developments that lead many to herald a new age.

'Information society' emerges as an analytical concept

The origins of the idea of the information society can be traced to the work of Fritz Machlup. He was the first to categorize knowledge and information tasks separately from 'normal' industrial and social activities. He identified five sectors (education; media of communication; information machines; information services; other information activities) which could be measured and assigned economic value. This categorization, and the statistical measurement it enabled, allowed Machlup to claim in *The Production and Distribution of Knowledge in the United States* that in 1958 around 29 per cent of America's gross national product came from these 'knowledge industries' (Webster 1995: 11). Once a benchmark figure had been set, it was possible to measure any expansion of these sectors, and this was the evidence on which subsequent claims regarding the emergence of the information society were founded.

Without Machlup's work, Peter Drucker could not have argued a few years later that in the postwar period 'the base of our economy shifted from manual to knowledge work, and the centre of gravity of our social expenditure from goods to knowledge' (1968: 287). Drucker devoted nearly half *The Age of Discontinuity* to a discussion of 'knowledge techniques' and 'the knowledge society', arguing that the 'impact of cheap, reliable, fast and universally available information will easily be as great as was the impact of electricity' (1968: 27). Using an idea that was later central to Daniel Bell's work, Drucker suggested that while progress in the past had been based on the acquisition of experience, now 'systematic, purposeful,

organized information' was the resource that would be deployed to advance society (1968: 40). Machlup's work enabled, or even encouraged, such claims.

Expanding on this statistical work, in the mid-1970s, Marc Porat's The Information Economy (a widely quoted and influential ninevolume report for the US government) suggested there were two complementary information sectors: the primary and the secondary. In the primary sector, knowledge industries manipulated knowledge and information to produce new knowledge products and services. In the secondary sector, knowledge and information manipulation was one part of material production processes, information being utilized in the production and sale of material outputs and the provision of services. The report claimed that, when taken together, these sectors accounted for over half of all economic activity in America (an increase on Machlup's figure), leading Porat to conclude that the US was fast becoming an information society (Webster 1995: 11-15). With its vast array of statistical evidence and its widely disseminated conclusions, Porat's report became a key piece of evidence in arguments regarding the transformation of society.

Despite being concerned primarily with the analysis of economic activities, a clear link between technological development and its social impact was always implied in these analyses. This led Wilson Dizard to rework Porat's sectors by conceptualizing them as three stages in the shift towards an information society in America, rather than as previously existing industrial sectors. In the first stage, large corporations deployed and developed various information technologies to produce new technical products. In the second, these new 'tools' were taken up by information industries and services. Finally, in the 'third and most far-reaching stage', this use would become so generalized that new networks would appear and transform the flows of information throughout society (Dizard 1982: 7). It was in this third stage that the social impact of these new technologies would become clear. This notion of progress towards the information society through the widening deployment of ICTs continues to be influential to this day.

Implications of the information society

Around the same time as Porat was compiling his report, Daniel Bell recognized similar shifts in *The Coming of Post-Industrial Society*

(1974). But Bell also suggested three more dynamics: theoretical knowledge would become increasingly important (a change in the 'axial principle' of society); expectations about the future would foreground issues of technology, its control and potential for transforming existence; and new decision-making processes would appear (1974: 14). He argued that methods of organizing social activities (the manner in which decisions are reached) could be regarded as 'intellectual technologies' which spread by example; successful techniques are copied by other actors and groups. Furthermore, 'the major source of structural change in society . . . is the change in the character of knowledge', a change which substitutes 'a technical order for the natural order' (1974: 44–5). This new knowledge order would increasingly set the agenda from which problems were addressed, defining the acceptable and unacceptable through the reduction of all problems to technical issues.

In the information age the role of the expert or technocrat would be enhanced. Bell recognized that knowledge had always been necessary in the functioning of society, but what would be

distinctive about the post-industrial society is the change in the character of knowledge itself. What has become decisive for the organisation of decisions and the direction of change is the centrality of *theoretical* knowledge – the primacy of theory over empiricism and the codification of knowledge into abstract systems of symbols that . . . can be used to illuminate many different and varied areas of experience. (Bell 1974: 21)

In postindustrial society the 'central person is the professional' providing the 'services and amenities – health, education, recreation, and the arts – which are now deemed desirable and possible for everyone' (Bell 1974: 127). Bell characterized postindustrial society as a new set of 'games between people', a realm of individualized social existence. Classes and groups would be sidelined by the individual as the possessor and user of knowledge, but guided by (enlightened) technocratic governors. This idea of the rise of the individualized knowledge-adept social actor is one of the most repeated elements of the information age, although it is now seldom traced back to Bell's work.

In another early analysis of the effects of this new age, Alvin Toffler suggested that the feeling of dislocation and uneasiness many experienced in the late 1960s was directly linked to 'future shock', an inability to keep up with the accelerating changes of the

nascent information age (Toffler 1970). This was, he later argued, because the postindustrial, information society was 'not a straight line extension of industrial society but a radical shift of direction ... a comprehensive transformation at least as revolutionary' as the industrial revolution (Toffler 1980: 366). It is this disjuncture with the past, this new way of organizing society (Toffler's canvas stretched from psychology, through social relations to international relations), which resonates throughout the literature of the information society. Despite, or because of, their more journalistic tone, for many Alvin Toffler and John Naisbitt – whose *Megatrends* (1984) also foregrounded ICT-driven change – were the writers who first brought these ideas to an audience far outside the cloistered world of academia.

Once these early analyses of the postindustrial, information society had appeared, more and more accounts of the new age and its effects began to materialize. Indeed, Anthony Smith has argued these early writings on postindustrialism have 'a Hegelian ring about them. Information technology was penetrated by the historic spirit . . . [and] the very act of formulating this idea of an information and communication society has exercised much of the transforming power, or at least has provided the political acceleration [towards it]' (1996: 72). This is to say, the arguments for the emergence of the information society have reinforced the dynamic they claim to observe by contributing to the reorganization of socioeconomic relations they merely purport to 'recognize'. Postindustrial analyses which claim the information society is emerging have themselves contributed to the appearance of this new socioeconomic 'reality'. By arguing that these changes are real and require a response, social and economic development has been pushed in a particular direction. The responses suggested (and enacted) have actually reinforced (or even underpinned) the developments which these analyses argue have already taken place. In an important sense, the 'information society' as a characterization of the new technological age we are entering is a self-fulfilling prophecy.

Communication and the information society

It is also frequently argued that changes in ICTs have transformed the way we perceive the world. This is a proposition made famous by Marshall McLuhan, who had an ear for a catchy phrase and popularized such terms as the 'global village', the 'age of informa-

tion' and 'the medium is the message'. Taking a historical perspective on information revolution(s), McLuhan focused in the first instance on the typographical innovations of the fifteenth century. He argued that the assumption embedded within typographical reproduction (the separation of language and information into recombinable units), alongside the more generally recognized expansion in the distribution of knowledge, was revolutionary, changing everything printing came into contact with (McLuhan 1962). Using his analysis of the impact of 'print culture', McLuhan then turned his attention to the effects of contemporary technological changes, outlined in his most famous book *Understanding Media*, first published in 1965 (McLuhan 1994). Trying to understand McLuhan is not an easy task, but his discussion of the transformative potential of new communication technologies and practices remains influential, inasmuch as many of his ideas find their way into current discussions, albeit unacknowledged.

The division of media into hot (closed, unidirectional/transmitted, complete messages) and cool (open, multidirectional/interactive messages requiring engagement) which McLuhan deploys at some length in Understanding Media has been seized on by those wishing to stress the interactive implications of internet-mediated information networks. Encapsulated in the book's subtitle 'The Extensions of Man', McLuhan argued that new 'cool' technologies extend our capabilities and enhance those aspects of practice which previously had been limited, either spatially or by time. However, at the same time new technologies swiftly naturalize such advances and make them seem 'everyday' rather than novel. While Machlup was seeking to quantify the economic changes engendered by new technologies in the early 1960s, McLuhan was already thinking about a technology-driven transformation of society. Society is often seen as the sum of the communications that take place within it, and the impact of technology on communications (and through communication, on society more generally) has therefore remained at the centre of much writing on the new age.

Mark Poster, for example, takes up McLuhan's famous notion that the 'medium is the message' and develops it further. Poster delineates three different 'modes of information', different ways of communicating knowledge and being in society, suggesting 'history may be periodized by variations in the structure' of the mode of information (1990: 6). Different ages have different ways of communicating and this will produce different societies. He tentatively identifies the main stages as 'face-to-face, orally mediated exchange;

written exchanges mediated by print; and electronically mediated exchange'. The first stage is 'characterized by symbolic correspondences, and the second stage is characterized by the representation of signs, [while] the third is characterized by informational simulations' (1990: 6). These stages are not consecutive: although each stage is historically later than the previous one, they do not replace each other but rather are superimposed. With the advent of new ICTs, not only has a new mode of information arrived ('electronically mediated' exchange) but also the two previous modes have had their character altered. Face-to-face communication is no longer limited by proximity, while signs can be represented (and recognized) across vast distances and enjoy much wider currency.

As 'each method of preserving and transmitting information profoundly intervenes in the networks of relationships that constitute a society', this has led to profound changes in society itself (Poster 1990: 7). Variations of this perspective on communication underpin much of the discussion of the information society. It is not only a shift in the character of contemporary society, not merely a shift in communicative methods within a society that remains broadly the same, it is something more. Or as Poster puts it: 'the solid institutional routines that have characterized modern society for some two hundred years are being shaken by the earthquake of electronically mediated communication and recomposed into new routines whose outlines are as yet by no means clear' (1990: 14). New societies, new communities (re)constructed through the use of ICTs will mean that the information society will be unlike the society from which it emerges. While there will be continuities, even these will be reshaped by the use and deployment of ICTs.

One of the key social shifts at the centre of writings on the information society is therefore the empowerment of individuals, and their communicative potential. In this new age of communications, Esther Dyson argues, we must disclose ourselves because by feeding into networks and sustaining them with relevant information, the benefits of membership will multiply; we should play an active role in existing communities or build our own; and we can offer our own 'products' across the net, helping ourselves and others (1997: 281–6). At the heart of the information society (as mediated by the internet) is a radical decentring of communication; individuals can remake their society by remaking their communication networks. However, since this decentring also allows for a fragmentation of real-life referents (job, physical appearance) which might constrain the construction of identity, Sherry Turkle argues

that one of the key transformations heralded by the information society is the ability to (re)construct identity due to the (potential) anonymity of online communication (Turkle 1997). As a famous *New Yorker* cartoon of a dog at a computer once suggested: 'On the internet no one knows you are a dog.' We can, in other words, choose who we might be in these interactions, and we may be more than one person, presenting different 'selves' in different forums, freeing ourselves from social constraints.

From information society to network society

One stream of comment on the information society has been concerned with the transformation of society (and its economy), and a second stream has been concerned with the transformation of ourselves. Drawing both these streams of analysis together, Manuel Castells has proposed that ICTs have produced a new sort of society, the network society (1996, 1997a, 1998). It should be noted that Castells was hardly the first person to identify the importance of the network possibilities of widespread diffusion of ICTs. Indeed, nearly twenty years before it was at the centre of the French report on the *Computerization of Society* (Nora and Minc 1980), but Castells has undoubtedly made the term his own. I will not try to summarize Castells's influential work here, but I will briefly note some of the key themes which permeate his treatment of the information age.

Castells argues at length that the deployment of ICTs is producing a networked society, one where not only companies, but also individuals, can benefit from new communication capacities. Electronically mediated networks support the development and dissemination of knowledge and information, allowing the acceleration of adaptation and discovery. He also suggests, as have others, that developmental processes have shifted from being based on physical resources to an increased reliance on the mobilization and coordination of knowledge and information. This is leading to information capitalism and the network society. Summarizing his own argument, he suggests this shift is the result of three dynamics: the revolution in information technologies that has been accelerating since the 1970s; the post-1980 restructuring of capitalism, most significantly in its relation to the state; and the social movements which emerged in the 1960s and 1970s, and which continue to be important today, most significantly feminism and environmentalism

(Castells 1997b: 7). These dynamics prompted the emergence of the global information economy and a transformation of work, where labour has become less standardized, flexibility has become the norm, and the working class has been 'de-massified'.

Alongside these economic shifts are changes in societies' character. Throughout the three volumes Castells discusses the growing disparities in wealth that have been part of these developments. For Castells the information age is not an unalloyed good: the world is being brought closer together through the enhancement of communication, but there is also increasing evidence of social fragmentation and dislocation. In addition society has moved towards an obsession with the image (both in cultural affairs and politics) and a commercialization (or even enclosure) of the spaces of communication. The widespread deployment of ICTs has produced a new relation between time and space. Similar to many of the arguments around globalization, Castells proposes a new 'timeless time' and a 'space of flows': time is no longer subject to fixed sequencing and can be accumulated through information collection as well as annihilated through instantaneous communication across the world; the spatial construction of our world is now much more dependent on the flows of electronic pulses around networks (spaces which emerge through communal negotiation) than on mere physical locality. All of this leads to a new age, the information age. Certainly, Castells's work represents a more complex treatment of the information society, less subject to the overstatement elsewhere. Nevertheless, like others he makes a number of problematic claims which I scrutinize in the following chapters.

Four Central Claims about the Information Society

There is more than one way of distinguishing the different bases on which claims about the information society are made. For example, Frank Webster, in his comprehensive survey, distinguishes five approaches: the technological, the economic, the occupational, the spatial and the cultural, allocating particular accounts to each (1995: ch. 2). And for each of these approaches he recounts a negative and a positive story regarding the social effects of the information society: utopia or dystopia. Elsewhere, Alistair Duff delineates three ways of thinking about the information society: the information economic thesis; the information flows approach; and the information technology approach (2000: 170 and passim). However, I adopt

a different procedure: I focus on four linked claims which figure prominently in most treatments of the emergence of the information society, and it is these which I interrogate in the rest of this book.

A social revolution

The most important claim in discussions of the information society is that a new age is being ushered in by new information technologies. In their 1978 report to the President of France, Simon Nora and Alain Minc argued: 'The computer is not the only technological innovation of recent years, but it does constitute the common factor that speeds the development of all others. Above all, insofar as it is responsible for an upheaval in the processing and storage of data, it will alter the entire nervous system of social organization' (1980: 3, emphasis added). The information society, driven by the new ICTs, represents a profound social revolution. Or, as Bill Gates surmised more recently, the 'global interactive network will transform our culture as dramatically as Gutenberg's press did the middle ages' (1996: 9). Relatively ubiquitous computing (networked through the internet) will have ramifications similar to those of the printing revolution. In another frequent comparison, the computer revolution is 'at least as major a historical event as was the eighteenthcentury Industrial Revolution, inducing a pattern of discontinuity in the material basis of economy, society and culture' (Castells 1996: 30). Thus it is broadly comparable to two previous 'revolutions', the emergence of printing, and the transformation of industrial organization. Furthermore, Nicholas Negroponte suggests it is irreversible: 'Like a force of nature, the digital age cannot be stopped' (1995: 229). This common perception of inevitability linked to the recognition of profound changes prompted by the information society leads many to argue that we are entering a new age: the information age.

There are a number of problems with these overarching claims for revolution (which I explore at length in the next chapter). Most obviously they involve a view of society that assumes a major determining role for technology. Indeed, technology is perceived as imposing its character on the rest of society. However, technologies are developed in specific social circumstances and deployed reflecting contemporary social relations. The relationship between technology, its 'character' and society is much more complex than a

unidirectional determinism allows. Furthermore, many of the claims for revolution telescope the history of information technologies to identify profound changes on the basis of the most recent generations of ICTs. Once we recognize that there has been a long gestation of the relevant technologies and of their interaction with societies across the globe, then the claims for revolution start to look a little strained. However, within such claims there are three other elements which are problematic in their own right.

The new economy

A second set of claims introduces the much discussed 'new economy'. At the centre of the 'Californian ideology' which underlies much writing regarding the information economy is the notion that 'existing social, political and legal power structures will wither away to be replaced by unfettered interactions between autonomous individuals' (Barbrook and Cameron 1996: 53). The workforce of the information economy will no longer be a single definable group (or 'class') but rather a fragmented network of individual contractors. There is a new division of labour encapsulated in the rise of outsourcing and project-based contracts at the expense of long-term company employment, as well as the increase of service sector employment relative to manufacturing jobs. This rise of services has been represented as a move to a 'weightless economy', one in which the products are not physical but rather informational (hence weightless). These days most people in most advanced economies produce nothing that can be weighed: communications, software, advertising, financial services. They trade, write, design, talk, spin and create: rarely do they make anything' (Leadbeater 1999: 18). The argument is clear: in this new information economy we work primarily with our minds rather than with our hands, and these jobs are best understood as service related, as the provision of information, the deployment of knowledge. Work has been transformed, there has been a move to more flexible working practices which enable workers to trade more easily on their expertise and skills. In this new economy it is ideas that count, knowledge that is the important resource.

In chapter 3 I examine these claims and argue that, while they describe some elements of recent shifts in work practices, they miss considerable continuities and actually hide a return to some rather familiar practices. The new economy, while clearly evident for some

workers, is limited in extent and reach. Indeed, the employment statistics which are often used to demonstrate these shifts do not support the conclusions drawn from them. Furthermore, in the real world of service work, past employment practices (including surveillance and control) are still exercised by managers and employers, and in some instances have even been enhanced by ICTs. To a large extent the continuity of economic relations in the 'new economy' has been supported by the successful expansion of property rights in information and knowledge. Much about the new economy is therefore not new at all.

Information politics

In the pre-internet discussion of the information society, the transformation of politics and community focused on the rise of experts and the power they might enjoy (as in Bell 1974). Marc Porat, for instance, claimed that 'the manager-scientist-professional is the new knight, absorbing the old powers of the capitalist, the landlord, the general and the priest' (1978: 79). The controller of knowledge and information, the technocrat, would replace the rule of wealth, landed estates, military power and religion that had typified previous societies. But as ICTs became more and more widely available in the 1990s, the possibility of new politically active 'communities' became a central theme of writing on the information society. These communities would be 'independent of geography' and individuals could belong to many cyber-communities related to their different political interests and with varying levels of commitment (Dyson 1997: 32-3). Thus, not only are new social groups appearing but they will mobilize widely dispersed individuals into effective (niche) interest groups who will have an increasing impact on the political process. In this sense, the 'new social movements' are emblematic of political community in the information age. Mobilizing on the basis of arguments for the transformation of personal lives, as well as political interest, a new networked politics is emerging.

This suggests that the character of democratic accountability and participation in the information age is changing. While there remain problems of access and the control of any putative public space on the internet, here I am a little less sceptical of the veracity of claims for change. There does seem to be a shift in the manner of political activity. However, while pressure groups and political campaigns

have certainly deployed ICTs extensively, it is a lot less easy to substantiate their political efficacy. And although the state retains a central political role, many governments have found it difficult (or have been unwilling) to construct new forms of interaction with their citizens, and have instead continued to rely on their existing, tried and tested networks. Some political problems have also been enhanced by the arrival of the information society, of which the two most often recognized concern privacy and censorship. In chapter 4 I examine the claims for the transformation of community and the character of political life, but these arguments also lead to the fourth key claim about the information society I want to discuss.

The decline of the state

An underlying distrust of government in the discussion of information society often takes the form of an explicit argument that it will allow civil society to successfully confront the state, which is outdated and no longer (if it ever was) the most efficient way to organize society. While this does not necessarily suggest their complete dissolution, states will 'have to become more open as the old hierarchical bureaucracies are becoming irrelevant to the new generation' (Tapscott 1998: 265, 290). There may be a residual role for centralized political authority but this is much diminished in the information age. But states may try to hold on to power, and therefore democracy becomes a struggle against their continuing domination of society. Conversely, it is argued, the power of the state to intervene has in any case been fatally compromised by ICTs. Here arguments regarding the state in a world patterned by the globalization of social, political and economic relations come into play. Although states have never been able to claim a monopoly of power in the domestic political economy, the 'information revolution' has undermined the state's ability to control information for its own ends, with fatal consequences for its overall authority. While some states still make strong claims for authority (despite and because of ICTs), in general the state is being challenged by the information society in many areas where its authority has been relatively uncontested for at least a century.

I argue in the fifth chapter that although the decline of the state is a death frequently foretold, the end is hardly imminent. Not only have some states been very successful at organizing their economies to respond to the information revolution, the supposition that such a revolution can transpire without a central role for the state is mistaken. Much of the analysis of the information society reifies the market by ignoring the crucial role of legal institutions in capitalist society. More importantly, given the dependence of the new economy on intellectual property rights, without strong state authority the economy of the information society would be unworkable. More generally, only by obscuring the role of law and authority in society can proclamations of the information age suppose the state must necessarily be in decline. Although their role is changing, states continue to be crucial to the societies they govern.

If not now, when?

In the following chapters I take each of these four key arguments, explore them in more detail and suggest some shortcomings in their depiction of the 'new age'. I am not suggesting these are the only claims which could be made about the information society, but they seem to me to be the central themes of the contemporary debate. The literature focusing on the information society has been developed over at least thirty years, and in the 1970s and 1980s quite a large literature of criticism was evident. Some of these earlier critiques appear in subsequent chapters and help me develop my criticism of the more recent claims about the information society. One of the reasons for writing this book is that recently, while some of the possible consequences of the information age have been subject to quite intensive political debate, the assumption that it represents a transformation of society itself is now regarded as relatively unproblematic. Utopians have been confronted by dystopians, but both accept that we are self-evidently entering a new age.

In this book I want to question whether our contemporary society is entering this new age, or whether, while there are some important changes we can recognize, the continuities are more profound. Given the length of time that the information society has supposedly been imminent, the argument that these things 'will come to pass' in the future is a prediction that is increasingly difficult to sustain. If there are few signs of a wholesale transformation of society in a period when the deployment of ICTs is accelerating, then it is unlikely that these four claims can really be substantiated. Again, I want to stress, I am not arguing that there are no changes that can be linked to, or may even be caused by the widening use of ICTs. However, when we strip away changes in the superficial

forms that interactions in the information society take, we find considerable continuity of substance. And while, as I have already noted, this is a simplistic way of putting the more complex and nuanced argument of the following chapters, this distinction is still important for our understanding of contemporary society.