

Technocities

Edited by
John Downey & Jim McGuigan



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We would like to thank the contributors to this volume, some of whom were not able to attend the conference but later volunteered to write a chapter. Publishing a book based on contributions which begin their lives at a conference is a difficult business and we acknowledge the value of the suggestions made by readers, most particularly Bob Catterall for his comments on the manuscript.

John Downey and Jim McGuigan

Introduction

Jim McGuigan

In the opening chapter to this book Stephen Graham provides a wide-ranging discussion of urban planning issues in relation to computer-mediated communications and cyberspace which usefully frames the general theme of the book as a whole. He takes issue with technological determinist perspectives whether of a utopian or dystopian kind and seeks, instead, 'to insert the idea of local agency into debates about new technologies and the future of cities' (p. 10). Like Raymond Williams (1974), Graham sees technological innovation and implementation as resulting from a multiplicity of factors that combine to produce specific effects in a variety of circumstances. There is no inevitability in the making and deployment of technologies and there is no place quite like any other place (see Lee, 1997). Global trends have different manifestations in different places. What happens always depends upon the particular conditions prevailing in context and the forces of business and political decision-making: hence, the stress on local agency. Many city governments around the world have seen great opportunities in information and communication technologies (ICTs) for urban regeneration and economic growth. Graham identifies a number of experiments that are concerned with 'global positioning', 'reconnecting the fragments' and, going beyond economic reasoning, the communicational rights of citizenship.

The possibilities are illustrated by community cable networks, freenets, city host computers and virtual cities constructed on the World Wide Web. Amsterdam's *Digitale Stad* is an outstanding instance of how the city is reimagined in cyberspace and in a manner which relates to life in an actual city. This example is also discussed in Chapter 4, by Simone Berger and Liesbet van Zoonen, with regard to women's involvement. Graham himself observes that social disadvantage may not only be ameliorated by on-line services but can also be exacerbated by them, a theme which recurs throughout this book. For the physically immobile, for instance disabled and elderly people, cyberspace offers the prospect of improved control over their lives, yet material and cultural barriers are not necessarily easily overcome. And they are unlikely to be overcome where social campaigns and progressive public policies for extending access are absent (for a fuller discussion, see Graham and Marvin, 1996).

Running through this book is a tension between optimistic and pessimistic scenarios for the 'technocity' but, as Kevin Robins suggests in Chapter 2,

the real tension may be rather more between those who see order – and hope for it – and those who see disorder. He is critical of the position outlined by Stephen Graham, whom Robins recognizes is not by any means the most starry-eyed of would-be optimists. The problem is, according to Robins, that the world imagined by urban planners, which is in turn inspired by the communicative resolutions of fragmentation and difference that are promised by the advocates of computer culture, is unconvincing. Behind this advocacy stands a corporate agenda of globalization which recycles old Enlightenment themes in a distinctly ideological fashion. Robins expresses ‘incredulity and astonishment’ at the techno-narratives that are being so widely circulated. In effect, then, the technocity may be seen as a distraction from the real conditions of cities throughout the world, overcrowded by enforced migration, where conflict and antagonism are constitutive. More positively, he sees these as disorderly places that have considerable appeal in comparison with the sanitized order of computerized rationality. There is a curious ‘denial and disavowal’ going on in the debate about informational cities, according to Robins, a failure to confront the terrors and the pleasures of actual cities. Robins has little doubt where the distracting visions are being imagined in the first place and what business and political interests they serve.

In the 1980s, Robins published a book with Frank Webster which criticized the information society thesis and was subtitled provocatively, *A Luddite Analysis* (Webster and Robins, 1988). Ten years on, Webster returns here to reconsider that critique and finds that there is not a great deal to reconsider. Technological utopianism has, in fact, become even more pronounced in the 1990s than it was in the preceding decade, and with no greater justification. During the intervening period, there have been theoretical developments and political developments that made the belief in an information technology fix increasingly potent. It has linked up with some of the more extravagant claims of postmodernist thought and been placed at the cutting edge of policy by both Bill Clinton’s Democratic presidency and Tony Blair’s New Labour government. Postmodernists have seen the Internet as the ideal medium of decentred subjectivity and the site where an endless play with one’s identity becomes most possible (for instance, Poster, 1995). The convergence of this kind of thinking and conservative social theorizing such as that of Daniel Bell is striking, although, as Webster points out, it is the shallower writing of Alvin Toffler which has had the most popular impact or, at least, has articulated this strand of thought for politicians and ‘policy wonks’. Communitarians and virtual communitarians have also contributed immensely to the intellectual ‘excitement’ associated with ICTs. In critiquing these ideas, Webster stresses ‘the gulf between real social trends and the wishful thinking of many commentators’ (p. 85).

The lines of influence and the ideological formation of a revamped ‘information society’ are traced by Webster in Chapter 3, particularly the way in which New Labour signed up to the agenda of the Clinton administration and kept within the bounds of the market reasoning laid down

by the New Right regimes that the Democratic presidency in the USA and the Labour government in Britain succeeded. 'Globalization', with its international finance markets and 'flexible' labour markets displacing the powers and responsibilities of national government, facilitated by fast communications, frames the 'new' thinking, according to Webster, and he is devastatingly critical of how it masks the unreconstructed exploitative and divisive propensities of capitalism.

On a more optimistic note, however, there are city experiments from which a less compromised political message may be derived, such as in Amsterdam's Digital Stad. According to Simone Bergman and Liesbet van Zoonen, it is the closest thing to a technocity in existence. In their chapter, the main concern is not virtual urbanity in general as a technical achievement but the social demography of users, particularly female users of the Internet in general. While recognizing the enduring masculine dominance of ICTs, Bergman and van Zoonen resist a feminist pessimism concerning gender power and newer communications media. There is a need to study the 'presence' and not only the 'absence' of women. It has been asked: 'Does the Internet work differently if you are a woman?' (p. 97). Through preliminary interview research with female users Bergman and van Zoonen come to the conclusion that the Internet can function as 'the virtual translation of more or less traditional concerns of personal contact' (p. 105). Also, specifically, there is developing 'a lively "feminine" culture on the Internet' (p. 105). Bergman and van Zoonen find that these uses of ICT are most characteristic of comparatively young, well-educated and independent women. Their study is not a survey observing the criteria of statistical representativeness, but an exercise in interpreting what may be the increasingly typical feminine meanings of the Internet without going along, however, with the essentialist position that the Internet is somehow inherently feminine (Plant, 1997). Instead, the urgent task still, according to Bergman and van Zoonen, is to 'demasculinize' the Internet.

Karl Marx made a famous comparison between the bee and the architect: the busy bee is just a drone programmed to work; ideally, the architect is a creative agent conjuring up in his or her mind what is to be built in reality. Julian Stallabrass's metaphor for the construction of virtual cities in contemporary discourse and practice is the hive. It is curious that in a period which is supposed to be 'postmodern' the most successful business in the world should apparently exemplify modernist rationality. As Stallabrass remarks, 'Windows, the triumph of form over economy, poses as a rational system' (p. 109). The very iconography of cyberspace recalls the rational dreams of modernity, most notably the perfect cities envisaged by Le Corbusier, designed for order and speed. Surfing the net is a virtual reproduction of Le Corbusier's motorist speeding through the Radiant City of his imagining. Stallabrass also looks at computer art and particularly the work of its most celebrated British exponent, William Latham. Latham, in Stallabrass's words, 'constructs virtual objects from various pre-defined shapes, usually

horns and tusks' that are modified by a program which simulates evolutionary processes (p. 112). It's only art but an art which mimics a modern fantasy of manipulation and has little, if anything, to do with a critical modernism that challenged the powers that be. Stallabrass asks somewhat disingenuously, from his point of view, but nonetheless incisively, '[i]s contemporary computer culture a haven of politically radical activity, anti-sexism, anti-racism and solidarity with Third World peoples?' (p. 115); and comes to the conclusion: not really. Much of computer culture in its leisure forms, particularly sexual play, is 'both deeply inconsequential and conservative'. The driving force of computer culture has more to do with capital accumulation than with communication, argues Stallabrass forcefully.

John Downey, in a rather different register, offers a critique of the dominant mode of thinking and policy-making concerning ICTs in the European Union which was signalled by the Bangemann Report for the European Council in 1995. The theme of 'catching up' with the USA and Japan is persistently reiterated and its accomplishment is thought about largely in free market terms. As Downey notes, 'what really seems to be driving policy is the goal of reducing leased-line costs to private industry thereby increasing their global competitiveness' (p. 126). From this perspective, the regulatory role of the nation state is diminished and those harbouring social democratic aspirations will find that the dominant position promises 'no more public money, subsidies or protectionism'. The situation, however, is somewhat more contradictory than the domain assumptions of neo-liberal hegemony and neo-technological determinism in policy discourse might suggest. Since Bangemann the EU has stressed 'inclusion', requiring national and local governments to take seriously their social responsibilities for the regulation and provision of ICT services.

Downey traces how academic debate has intersected with policy debate and sees particular value in the work of Manuel Castells (1996, 1997, 1998). Castells's membership of the High Level Group of Experts, which in its 1996 interim report criticized Bangemann, demonstrates that the debate is by no means closed. As Downey observes, '[a]lthough Castells accepts the vocabulary of the rupture, of a dramatic, revolutionary change sweeping through advanced capitalism as a result of developments in ICTs, he comes to significantly different conclusions from the techno-boosters who promise that there will be no losers' (p. 129). There is indeed an 'informational mode of production' developing in the single time-frame of a global economy which tends to separate the interests of capital from close alignment with those of nation states. There are winners and there are losers. In Western Europe, 'core' countries are comparatively rich informationally and technologically whereas the figures for Internet access and personal computers per head of population in 'cohesion' or 'peripheral' regions demonstrate huge disparities from the core. Castells has focused on the multiple forms of inequality associated with ICT deployment in Europe, the polarization of workforces between the professional-managerial beneficiaries and the socially excluded in 'dual cities' at the core itself. Key elements of

progressive policy to ameliorate informational and attendant social inequalities, identified by Downey in his chapter, are the reconciliation of private interests with the rights of citizenship, trans-European resourcing and training programmes. A properly functioning public sphere in democratic societies is dependent upon equality of access and participation. In exploring the possibilities, Downey considers the case of Bologna as a city which has made strenuous efforts to achieve social inclusion in the use of ICTs.

When Al Gore mapped out the US government's perspective on the information (super)highway in 1994 the whole world paid attention. He stressed private investment, competition and flexible regulation tempered by open access and universality of service. These latter considerations are vital aspects of political decision-making by national and local governments in response to the cultural properties of communication technologies that transcend national borders and national identities. Questions of policy can up to a point be distinguished along hardware/software lines, between infrastructural development, on the one hand, and, on the other hand, specifically *cultural* policies (see McGuigan, 1996). Leen d'Haenens explores this distinction with regard to Europe, the USA, Canada and, to a lesser extent, Japan. There are complex questions to do with employment, intellectual property rights, cross-media ownership and antitrust legislation, privacy, censorship, security of electronic information and universal access. D'Haenens is primarily interested in the cultural aspects of policy; and, for her, Canada is an especially pertinent case due to its close proximity to the USA. It has long been a concern of Canadian governments to maintain a distinctive national identity whilst also negotiating the coexistence of English- and French-speaking populations.

A great deal of debate about cyberspace and technocities takes place in what used to be called 'the developed world' and most prominently in the USA. In recent years there has been a panic in Europe about keeping up with the new communication technologies (Bangemann, 1995). 'Tiger economies' in South East Asia are also on board the technology bandwagon. The meanings and implications of all this in 'the developing world' pose open questions. No nomenclature here is satisfactory, though 'North' and 'South' are now favoured terms which do not, however, correspond exactly to physical geography. Some countries in the South are moving forward while others are being left behind, especially in Africa; and in the North as well, particularly when post-communist Eastern Europe is taken into account, development is uneven.

Simon Bell writes here of his own experience of research in developing countries, Nigeria, Pakistan and China, and reviews the issues of technology transfer and technology as a spur to development. The question of modernization remains a matter of dispute and the problematical relations between the country and the city in poorer lands are still relatively little understood. In development studies the city has tended to be neglected in spite of continuing large-scale migration from the country to the city. The city in the South is a complex place where urban elites appropriate technologies and

participate in 'modernization' while poor majorities become yet more marginalized. Again, there is a bifurcation of perspectives, fears envisaged in the city as 'hell' and hopes invested in the 'magnet' city. Bell's chapter aims to illuminate these tensions.

Marshall McLuhan once observed:

In a culture like ours, long accustomed to splitting and dividing all things as a means of control, it is sometimes a bit of a shock to be reminded that, in operational and practical fact, the medium is the message. This is merely to say that the personal and social consequences of any medium – that is, of any extension of ourselves – result from the new scale that is introduced into our affairs by each extension of ourselves, or by any new technology. (1964: 15)

McLuhan went on to remark that, '[m]any people would be disposed to say that it was not the machine, but what one did with the machine, that was its meaning and message'. In his opinion, they were mistaken. For McLuhan, the technological medium really was determinate, bringing about transformations in the human sensorium. Most of the contributors to this book would tend broadly towards the opposite view due to an awareness of the power relations, structures and agencies that shape the development and use of technologies. Yet none would necessarily disagree with the argument that the properties of the medium itself have a measure of determinacy. John Pickering, in Chapter 9, explores this side of the debate in a long historical perspective and from a psychological point of view.

Biological evolution is a lengthy and drawn-out process: cultural evolution is much quicker. Take urban living, for instance: in 1900 only 10 per cent of the world's population lived in towns and cities; now, over half the world's population are urban dwellers. Pickering looks at how both urbanity and digital technology shape dramatic changes in psychological dispositions and everyday life. He draws upon Benjamin's unfinished arcades project (Buck-Morss, 1989) to consider these changes. Where the actual city had already created new kinds of sensibility, as Simmel insisted, the advent of virtual cities potentially brings about yet greater changes in the self and associative activity. Unfortunately, though, when studied from, say, the technologically utopian perspective of the MIT Media Lab, 'fundamental issues' are typically omitted, as Pickering argues, 'issues of empowerment, inclusion/exclusion and access' (p. 178). Pickering reviews many of the exciting applications of 'intelligent' machines, such as computer-aided design and architecture, but he ends on a rather pessimistic note, influenced by Baudrillard's (1983) theorizing of simulations and simulacra, which can be taken as a warning, perhaps against Baudrillard's own intent, about displacement of 'real world' issues concerning social involvement and participation.

In a concluding *tour de force*, Douglas Kellner aims to put it all in perspective or, rather, a multiperspectival framework. There is a need for a critical social theory that can account dialectically for the contradictory forces at play in what Kellner himself has named 'technocapitalism'. It is

undoubtedly the case that capitalism integrates structures and practices, and functions through the newer technologies of information and communication. It is vital to perceive this coalescence in order to avoid either technological determinism or economic determinism; in this sense, Kellner's argument is reminiscent of Williams's (1974) critique not only of technological determinism but also, and frequently missed, of 'symptomatic technology', the argument that the technology is merely a symptom of something else, most typically capitalist and military machinations. Williams wanted to insert the mediating term of 'intention', that actual decision-making and struggle around what should be done matter; and, this is the space of politics. In effect, it is an argument for agency, which is the guiding principle of Stephen Graham's introductory argument. This is not, however, quite how Kellner sees it. He is concerned with the ideological and material determinations that set limits upon and open up possibilities for agency.

Kellner remarks: 'whenever there are new technologies people project all sorts of fantasies, fears, hopes, and dreams on to them, and I believe this is now happening with computers and new multimedia technologies' (p. 187). Kellner wants to find a third way between 'technophilia' and 'technophobia' but not an easy compromise or cosy consensus. He is extremely critical of the 'computopia' evinced by serious theorists as well as by politicians and propagandists. Yet, a deconstruction of the interests behind and the ideologies articulating the panacea of ICT is, for him, radically insufficient. He points to some interesting paradoxes, for instance the way in which, in the USA, cyberspace functions, to a degree, as a comparatively decommodified and, indeed, messy space in a heavily commodified and ordered culture. For reasons of educational policy, in the main, the state provides a certain amount of free access to the Net and there are computers that are freely available to those in education: universities, of course, but also schools. Moreover, radical movements such as the Zapatistas in Mexico act politically on-line (see Castells, 1997). In the end, Kellner argues for a theory and a politics that are both-and, not either-or.

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PART 1

DEBATES

1 Towards Urban Cyberspace Planning: Grounding the Global through Urban Telematics Policy and Planning

Stephen Graham

The history of communications is not a history of machines but a history of the way the new media help to reconfigure systems of power and networks of social relations. Communications technologies are certainly produced within particular centres of power and deployed with particular purposes in mind but, once in play, they often have unintended and contradictory consequences. They are, therefore, most usefully viewed not as technologies of control or of freedom, but as the site of continual struggles over interpretation and use. (Murdock, 1993: 536–7)

Why should we care about this new kind of architectural and urban design issue [the ‘urban’ design of cyberspace]? It matters because the emerging civic structures and spatial arrangements of the digital era will profoundly affect our access to economic opportunities and public services, the character and content of public discourse, the forms of cultural activity, the enaction of power, and the experiences that give shape and texture to our daily routines. (Mitchell, 1995: 5)

Vague notions of ‘city-ness’ and urbanism hold an important place in the current media hype and debate surrounding cyberspace and the Internet (Featherstone and Burrows, 1995). Popular commentary on the growth of telecommunications-based social interaction, shopping and information retrieval is peppered with the use of urban/spatial metaphors for describing the electronic spaces which people increasingly ‘enter’ and interact ‘within’. Beyond the most obvious spatial metaphors – cyberspace, electronic frontier, information superhighway, website – remarks about ‘cybercities’, ‘virtual cities’, ‘virtual communities’, ‘virtual shopping malls’, ‘cybercafés’, and ‘cybervilles’ are increasingly common.

The importance of the urban/spatial is also growing in technological debates within academia. General debates about cyberspace, telematics and

the future of cities are currently proliferating within disciplines as diverse as architecture, cultural studies, communications studies, science and technology studies, urban sociology and geography. Attention is increasingly directed towards exploring how the economic, social and cultural aspects of cities interact with the proliferation of advanced telematics networks in all walks of urban life (see, for example, Architectural Design, 1995; Mitchell, 1995; Shields, 1996). Here, the common 1980s assumption that the new communicational capabilities of telematics would somehow 'dissolve' the city has waned. Rather, it is now clear that cyberspace is largely an urban phenomenon. It is developing out of the old cities, and is associated with new degrees of complexity within cities and urban systems, as urban areas across the world become combined into a single, globally interconnected, planetary metropolitan system (Graham and Marvin, 1996). Research here now centres on the degree to which city economies can be maintained in a world of on-line electronic flows; the ways in which place-based and 'virtual communities' interact; and the related interactions between urban cultures rooted in traditional public spaces and 'cybercultures' operating within the virtual spaces accessed from computers (see Mitchell, 1995 and Graham and Marvin, 1996, for reviews).

Despite the central importance of the 'urban' in cyberspace debates, issues of urban policy and planning have been virtually absent within both popular and academic debates. Questions of agency and local policy tend to be ignored in the simple recourse to either generalized, future-oriented debates, or to macro-level, binary models of societal transformation. In these, new technologies are seen to be somehow autonomously transforming society *en masse* into some new 'information age', 'information society' or 'cyberculture'. The implication is that local councils, policy-makers and planners are little more than irrelevant, even anachronistic, distractions in this exciting and epoch-making transformation.

With utopianism and crude technological determinism often dominating popular (and, in many cases, academic) debates, it is not surprising that the potential roles of urban policy-makers and planners in 'socially shaping' new technologies in cities at the local level are usually overlooked. This neglect, however, is problematic. It means that a fast-growing wave of urban experimentation with telematics, which is emerging across advanced industrial cities, is almost completely ignored. This is a problem, because such innovation promises to have major practical and theoretical implications for how we might consider the future of cities, urban policy and planning. It may also offer lessons on the broader question of how we might best understand the relations between cities and telematics, and how we might address the crucial question of thinking about the 'local' and the 'urban', in an increasingly telemediated and globalized era.

This chapter attempts to help insert the idea of local agency into debates about new technologies and the future of cities. It has three sections. In the first I try and explain why the concept of local agency has been so ignored in

the rhetoric about cyberspace, cyberculture and the many allegations that we are moving toward a more telemediated society.

In the second section, I build on this discussion to explore the recent wave of experimentation at the urban level with information technology and telematics. Many of these initiatives are attempting to use telematics to help underpin the emergence of the more socially 'progressive', culturally enlivening and economically beneficial scenarios at the urban level. Three broad areas of such policies are discussed: 'global positioning' policies aimed at projecting a city as a global node for investment; internally focused telematics initiatives aiming at 'reconnecting the fragments' that increasingly characterize cities; and strategies aimed at developing electronic linkages between citizens and municipalities. I conclude, in the third section, by assessing the significance of these policies for our treatment of the 'local', for our understanding of cities, and for our conceptualization of telematics-based innovation more broadly.

Explaining the Neglect of Local Agency in Debates about Cyberspace and Cities

Why are general debates about cyberspace and the future of cities so buoyant, whilst the idea of there being local 'manoeuvring space' to shape local telematics development in cities is so rarely stressed? This, I argue, can be attributed to two problems. First, the dominant models of technology–society relationships which underpin cyberspace and city debates (technological determinism, futurism/utopianism and dystopianism/political economy) operate to deny the very concept that local agency can shape technological innovation in diverse and contingent ways. Secondly, the urban studies and policy communities themselves have been very slow to become aware of telematics.

Technological Determinism, Utopianism and the 'Candy Store Effect'

As with the wider discussion of technology–society relationships, the analysis of the linkages between cities and telecommunications tends to be dominated by a set of approaches which can broadly be termed 'technological determinism'. More often than not, in this 'mainstream' of social research on technology (Mansell, 1994), new telecommunications technologies are seen as direct causes of urban change (Edge, 1988: 1). This is because of their intrinsic qualities or 'logic' as space-transcending communications channels. The forces that stem from new telecommunications innovations are seen to have some autonomy from social and political processes (Winner, 1978).

Here, the social and the technical are cast as two different arenas, the former being shaped by the latter. Machines and technologies are seen to arise and evolve in a separate realm to alter the world (Thrift, 1993).

Technological 'revolutions', such as the current one which many allege to be based on telematics, are seen as virtually unstoppable broad waves of innovation and technological application, which then go on to 'impact' on cities and urban life (Miles and Robins, 1992). As with much social research on technology, literature on telecommunications and cities still tends to invoke what Gökulp (1992) calls 'grand metaphors' of the nature of telecommunications-based change in cities.

Invariably, modern telecommunications are seen as a 'shock', 'wave' or 'revolution' impacting or about to impact upon cities. In these scenarios, current or future urban changes are often assumed to be determined by technological changes in some simple, linear cause-and-effect manner. The use of simple two-stage models to describe changes in cities and society is common. Cities are placed in a new 'age' in which telecommunications increasingly have a prime role in reshaping their development. Most usual here are notions that capitalism is in the midst of a transformation towards some 'information society' (Lyon, 1988) or 'postindustrial society' (Bell, 1973), or that a more general 'communications revolution' (Williams, 1983) or 'third wave' (Toffler, 1980) is sweeping across urban society. The broad 'technological cause – urban impact' approach reflects very closely the 'commonsense' view of technological change within Western culture. As Stephen Hill argues:

the experience of technology is the experience of apparent inevitability . . . the most influential critics who have sought to understand the experienced 'command' of technological change over twentieth-century life have turned to the machines for explanation, and asserted the 'autonomy' of technology. . . . The technological determinist stance aligns with many people's everyday experience. (Hill, 1988: 23–4)

Most often, though, because of the general inability to analyse real change and the influence of futurology, analysis centres on speculation concerning the 'impacts' of such telecommunications 'revolutions' on future cities in a general and vague way. As Kevin Robins suggests, 'all this is driven by a feverish belief in transcendence; a faith that, this time round, a new technology will finally and truly deliver us from the limitations and the frustrations of this imperfect world' (Robins, 1995: 136). The speculations of 'futurologists', and many 'cyber utopians', generally tend to take an optimistic view of the future 'impacts' of telecommunications on cities and urban life, offering tantalizing glimpses of future scenarios. The proliferation of electronic spaces and networks is often seen to be leading to an alternative reality which offers potential for 'recreating the world afresh' (Robins, 1995: 153).

In this rush to describe this re-creation of the world, actual telecommunications-based developments in real contemporary cities are rarely analysed in detail. If virtual spaces are mythologized as some 'point of departure' for society, then attention will always be deflected from the detail of how they relate to real people, real economies and real communities in