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Chapter 12: Cyberspace as the New Public Domain

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In thinking through inclusive cities, it is increasingly important to think of the role of the non-tangible realm of digital media in the city. Immediately one might be justified in asking – what possibilities for inclusion, and threats of exclusion, are created specifically for cities? This chapter suggests the answer to that is three fold. First, increasingly information and communication technologies (ICTs) are part of a competitive interurban order. Increasingly the economic order and relationships between cities are mediated through flows of information. Cities are located in this digital terrain as much as a physical one – one where flows of data and information have their own specific geographies produced through key cities and which in turn positions some (parts of) cities differentially in a global environment. Second, leading from this we have to challenge our habitual, definition of cities in terms of a spatial location and extent. Instead, we need to think of cities as simultaneously containers for, facilitators of, constraints upon and products of interactions. Looked at in this way, the mediation of such interactions by ICTs may have profound effects. This then 'switches the emphasis of urbanity from physical built form to the quality of interaction in cultural life through the exchange of information' (Little 2000: 1814). If we see cities as originally creating a densification of activities in space (thus increasing the number of actions possible in a given time), then disembodied media for interactions seem to offer the inverse tendency

(to intensify what can be done in a given time irrespective of distance) (Graham 1998, 1997). Together these two issues suggest a rescaling – or multiscaling -- of urban interaction that challenges conventional planning and governance via territorial units. However, the third strand is a resurgence of the urban as a means of coalescing multiple digital environs. The city still operates as both a formal template for understanding the conditions of openness, free circulation and multiplicity that might be argued to characterise informational realms, but also acts as the location where such digital terrains are produced.

This chapter will ask how these processes entwine with the actual existing city. So rather than seeing cyberspace as a separate detached realm it will focus upon 'a multi-scalar co-mingling of electronic and physical space', digital flows and physical flows, virtual and real places (Page and Phillips 2003: 73). Daily lives do not encounter a great divide of offline and online worlds but rather feed the one into the other in subtle and continuous interplay. Thus:

> 'The real-actual and the virtual-imaginary are not distinct halves but
> something akin to oscillating forces in a shifting field, existing not side
> by side but through and across each other. If we were to assign
> identities to the real-actual and the virtual-imaginary, we might say
> that they are at one singular and doubled, like Siamese twins. If they
> are entities at all, they share functions and spaces over coterminous
> territories, or overlapping regions of non-exclusivity. In our cities,
> there already exist demonstrations of the links between the real and the

virtual: the ubiquitous cash machine (ATM), for example, the garish

video arcade, even the lowly phone booth all call into play the

possibility of a coterminous merging of very real city of bricks and a

conceptually experienced "city of bits".'(Zellner 1999: 10)

Different media, different spaces and forms are layered over each other, bringing the

virtual out of the realms of the technical elite and into the everyday. This layering

through more and more media transforms and recombines elements of the city so that

'like parasites taking over their hosts, [new media] have transformed the functioning of

the systems on which they were superimposed, redistributed activities within those

systems and eventually extended them in unprecedented ways' (Mitchell 1999: 15). As

Bolter and Grusin put it, we should

'not believe that cyberspace is an immaterial world, but that it is very

much a part of our contemporary world and that it is constituted

through a series of remediations. As a digital network, cyberspace

remediates the electric communications networks of the past 150 years,

the telegraph and the telephone; as virtual reality, it remediates the

visual space of the painting, film and television; and as social space, it

remediates such historical places as cities and parks and such

nonplaces as themeparks and shopping malls. Like other contemporary

mediated spaces, cyberspace refashions and extends earlier media,

which are themselves embedded in material and social environments'

(1999: 182-3)

This creates an entangled pattern where advantages and disadvantages from the social world are ramified by the affordances and distributions of new digital spaces and capabilities. The chapter begins by looking at the effects of global flows on creating exclusionary geographies – starting with networks and relations between cities but then focusing upon effects within cities. It then addresses how such global changes might be inflected – looking at ways new media have been connected to new modes of participation which are both disruptive and inclusive. It contrasts planned initiatives which invoked an urban public realm (taking the Digital City of Amsterdam as an example) with attempts to create an 'Intelligent Island' (in Singapore) alongside the unanticipated and disruptive forms of participation rendered possible through new media (looking at Seoul). In each case it examines the effects on the use of space and access to resources in and through the city.

Global flows – the hyper included, the cyber coolies and the disconnected

Cities and Information and Communication Technologies (ICTs) may at first seem only accidentally related as topics. ICTs are presented as placeless – or perhaps oscillating between an interior setting of use (generally) and a virtual realm. However, they have been connected with a massive global restructuring of urban relations. ICTs 'have not eliminated the importance of massive concentrations of material resources but have, rather, reconfigured the relations of capital fixity and hypermobility. The complex management of this interaction has given some cities a global competitive advantage' (Sassen 2001, page 411) in an inter-city competitive realm. So some cities are striving to

attain places of dominance or superiority in a new digital global landscape where the need for the 'dispersal of activities without losing coordination has gone hand in hand with massive concentration of resources for command and control embedded in specific milieu' (ibid., page 412).

However, the new communication technologies affect more than competition between cities – they alter how we can conceive of urban centres. It is now possible to disembed urban functions from local geography, by which I mean that one part of one city may be functionally connected to another part of another city rather than its immediate environs. Thus we may have direct links between different parts of different cities – not a pattern of links within cities and then between whole cities. So, for example, the digital connections of the City of London to Wall Street may be stronger than the connections from those financial quarters to some parts of their own urban environs. The digital media enable 'a relation of intercity proximity operating without shared territory: Proximity is deterritorialized' (Sassen 2000, page 226). The effect then is to move from 'container' based notions of scale (crudely hierarchies of home, street, neighbourhood, district, city, region, nation) to one where these different scales are entangled and cross cut:

> 'What is the "context", the local, here? The new networked
> subeconomy occupies a strategic geography, partly deterritorialized,
> that cuts across borders and connects a variety of points on the globe. It
> occupies only a fraction of its "local" setting; its boundaries are not
> those of the city in which it is partly located or those of the
> "neighbourhood". ... I see a re-scaling: the old spatial hierarchy local-

regional-international no longer holds. Integration is no longer

achieved by going to the next scale in terms of size. The local now

transects directly with the global. The global installs itself in locals,

and the global is constituted through a multiplicity of locals.' (Sassen

1999, page 119)

These global flows are not simply free floating but are deeply embedded, so that many

'urban residents begin to experience the 'local' as a type of microenvironment with

global span' (Sassen 2006: 23). Sassen (2002) exemplifies this with all the local activities

necessary to sustain the 'virtual' financial realm – from logistics services, to taxis, to real

estate agents and so forth. This translocal urbanism (Smith 2001) is not just digital – but

in almost every case involves flows of people. Sassen (2001) argues digital flows do not

replace flows of people due to the two types of information in the global economy: data

which can be reduced to transmissible forms, and evaluative knowledge that requires

high skill interactive processing, supported by tacit competences. Firms seek cities whose

social affordances enable the latter interactivity and thus the maximization of benefits

from the technical connectivity (2001, page 412-3). The informational flows thus play

upon transnational flows of people from global elite workers, to tourists to poorly paid

migrant labour brought in to service the domestic needs of these mobile elites. In terms of

who 'inhabits' the city then we have to think not just of residents but constituting the city

out of flows of people (Martinotti 1999), from citizens to residents to sojourners to

trippers raising questions of who has rights to and claims upon any given city. These

divisions and disruption of who can claim a right to the city and who is included in

various forms of participation are bound to the embedding of digital technologies.

Many analysts thus see digital media exacerbating urban divisions, with critics such as Virilio seeing society split by speed where 'one part lives in an electrical world of relative speed – transportation --, the second with absolute speed of transmission of information in real time' (1998: 185). Virilio is notably ambivalent whether the absolute speed of electronic interaction is pleasant for those subject to the demands of immediacy in accelerated lifestyles, suggesting the only thing worse is not to be subject to them. In a similar vein Castells (1989) critiqued the 'dual city' or Boyer (1996) the 'min-max' scenario, where the city is sharply divided between prosperous 'knowledge workers' and those incapable of finding a place in the 'new economy' (other than, ironically, in servicing the needs for baby-sitting, house cleaning and similar for the 'knowledge workers' to enable them to pursue their frenetically busy lives). Processes of social polarisation are exacerbated by the unbundling of 'public' services through electronic service provision, permitting differential terms of access (Graham and Marvin 2002). Ultimately these accounts suggest visions of 'a society of cocoons ... where people hide away at home, linked into communication networks' that allow, and increasingly compel, a frenetic globally connected lifestyle, but where people increasingly opt out of the rest of the city through a 'spatial closure' (Burrows 1997: 38) or 'pacifying space' (Robins and Webster 1999). The 'dual city' is simultaneously 'globally connected and locally disconnected' (Castells 1996: 404).

This vision of the dual city of digital elite and excluded others certainly has resonance but it too readily equates global connectivity with power. We could equally look at the way

globalised telecommunications are altering the rhythms of urban life to produce new patterns of disjuncture and differentiation. For female employees in call centres in Bangalore –answering to the temporality of US markets, the night-shift is a time-trap emphasising their marginal status in a night time environment that is dominated by men, with women stigmatised and moved by chartered van (Patel 2006) as part of a new global pink collar labour force. This digital economy (with 336 call centres employing 348,000 people in India in 2005) oddly echoes early electronics manufacturing that produced a new urban proletariat in countries like Malaysia, with Malay women brought into urban centres, with fears and desires for urban lifestyles and shift work (Ng and Mitter 2005). Here the work regimes are far from a global elite's and instead the 'outsourcing of informatics represents new gendered complexities of surveillance of the 'third world' worker by global information regimes' (Shome 2006: 107). In terms of the city, these workers too are part of both the one where they live and work, and also those, usually western ones, whose populations they service. A new source of urban difference and hybridity is introduced not by the movement of people but their globe spanning digital linkages that make them share, if unequally, electronic space.

Within a city we might then see very differentiated outcomes reflecting three sets of digital divides: differential access at, first, inter and, second, intra-urban scales, and, third, consequent divisions in what people do with that access. First, the global pattern is almost too stark to require enormous comment (Table 1). The traffic flows clearly delineate a global heartland in a landscape of flows. But although the data is national the connectivity is often urban, with differential networks of urban connection underlying the

digital infrastructure (Moss and Townsend 2000; Zook 2002). Second there is differential access within cities, in terms of provision and infrastructure (for instance the concentration of wireless or broadband coverage in particular districts). These map onto existing functional zonings and layerings in the city with points of hyper connectivity and nodes of various flows around economic activities (Page and Phillips 2003). More starkly the urban uptake maps onto social divides. For example, home internet access in the UK varies from around 85% for the wealthiest quintile down to 15% for the poorest quintile (ONS 2003-04). This gap, moreover, is widening in both the UK (where the divide in access widened from 32 to 65 percentage points for the top and bottom quintiles between 1998-2004, or in occupational terms from 35 to 44 points between managers and professionals and working class occupations between 2000- 2004) (Figure 1) and the US (where the divide in access from richest to poorest categories widened from 25 to 55 percentage points from 1997-2002) with the least access concentrated in downtown urban areas (Bromley 2004, page 78; National Telecommunications and Information Administration 2002).

TABLE 1 AROUND HERE

Thirdly, rather than just focusing on the unequal distribution of access to networked PCs, we might ask what difference digital media make to how people live (Selwyn 2004). Some effects are about speed and priority. Thus we might see a variegated 'economy of presence' developing. Some activities may be accelerated and sped up through online access. Online services may offer premium products, as with online banking allowing preferential interest rates. Our speed of access may also be filtered through digital media

– where we do not just see an online/offline divide but also a fine grain stratification of access. For instance software routers can identify more or less valued traffic and enable or impede its progress – for instance queuing and sorting traffic according to its likely market profile (Graham 2005). If alongside this online provision there is the closure or reduction of physical services or points of presence then the effect on less connected neighbourhoods may be heightened (Graham and Marvin 2002). These effects grow as digital media ecome more or less essential to daily life.

FIGURE 1 AROUND HERE

However, increasingly digital access is not just about accelerating elite connections but an economy of rationed presence. Thus many are now compelled to use digital interfaces – precisely to control their access to services. Formula driven telephone menus, call centre based provision and menu-driven web interfaces offer ways to reduce operating costs and standardise a service product. Both call centre workers and their distanciated clients are being disciplined. Indeed, elites may actually be marked by their ability to demand physical co-presence. Alternately digital networks may be strangely suited to enabling the informal processes and networks that are integral to the functioning of marginalised spaces in cities such as those in Southern Africa (Odendaal 2006: 45). The rest of chapter will focus upon the social realms created by digital spaces – rather than say economic advantages – through different conjunctures of multiple technologies to look at inclusion through social interaction and urban participation.

Plugging in to the global flows

A paradigmatic example of a city that has deliberately used ICTs to position itself as globally included is Singapore. The Singaporean state has been a leading player in efforts to use ICTs as tools of economic development and governance since the early 1980s. A series of strategic master plans focused first on ICTs in government data handling (1982), then building labour ICT skills leading to the National Information Technology Plan (1986-91), resulting in levels of IT literacy, computer usage and telephone and digital connectivity ahead of the rest of SE Asia (Chun 1997: 49-53). This was incorporated into the IT2000 strategy for a nationwide information infrastructure -- subtitled '*A Vision of an Intelligent Island*'. Given that the plan was devised in the early nineties before the world wide web, it addressed many issues with striking foresight. As with much state led development in Singapore, 'It took visionary thinking, high-risk daring, meticulous planning and relentless application … in envisioning and building Singapore as an intelligent island' (Arun and Yap 2000: 1750).

The centrepiece of IT2000 was to be a broadband interface that would be networked throughout the island. Networking a whole city was a revolutionary idea at that time and it took vision for politicians to support it. At the launch of the network, named SingaporeONE, in 1998, it boasted 120 applications and 98% of households needed just the 'last 3 metres' (ie their own connection to the network passing their doors). In terms of inclusion the massive state investment (US $86 million of public and US $114 million of private investment at mid nineties prices) did indeed help home internet access rise

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from less than 10% in 1997 to 65%, with total broadband access rising from less than 3% of home users in 1998 to 40% by 2003. The digital gap between poor and wealthy was contained, so by 2001 52% of those in social housing had home access as against 74% in private housing. The gap had widened from 17 points to 21.5, but in the context of massively increased connectivity of all groups that meant a change from private houses being 3.8 times more likely to be connected to being 1.4 times as likely (Annual Survey on Infocomm Usage in Households and by Individuals 2001, 2003, 2004, IDA).

Two factors though complicate this picture. First, is the issue of inclusion and control. The very name SingaporeONE -- 'One Network for Everyone' -- neatly encapsulated the tensions of the socially inclusive yet socially controlling state in Singapore. Everyone would be provided for, yet there would be no alternative. Inclusive urbanism but hardly pluralistic. Dramatising these issues of control was the unanticipated advent of the world wide web. Along with it came the nineties rhetoric of an infrastructure that was endlessly proclaimed to treat censorship as something to route around. Suddenly a government monopoly service began to look anachronistic. Local critics derided SingaporeONE as a 'virtual condom' designed to keep control of information from outside and manage it inside to create a 'government sponsored 'no-place'' (Thomas2Less 1999). The paradox of increasing informational flows yet maintaining control was persistent.

Having on the one hand announced that global flows are inevitable, unstoppable and an historic necessity the state has had to face the uncomfortable application of this economic rhetoric to social realms. However, Singapore had managed such conflicts before --

already being a major corporate satellite transmission centre, the regional base of 16 international broadcasters, yet at the same time prohibiting satellite receivers and instead providing state approved cable TV. The state offered more technical freedom while maintaining social control as effectively as ever. The first famous example came with a scan of all Singaporean email accounts in 1994 ostensibly for offensive imagery followed by outraged messages documenting traces of surveillance posted on alt.soc.singapore (Rodan 1998, page 77-8). The ensuing outcry, speedy backtracking and almost embarrassed scapegoating of bureaucrats, and the global stories confirming Singapore's authoritarian tendencies, make these seem the maladroit steps of a state grappling with a new informational landscape. However, if we look at the effects then the outcome is not so clear. The state had demonstrated its capacity to search email accounts, and the postings fuelling the rumours of surveillance amplified this. In other words the state had, despite the technical limits of surveilling huge volumes of data, created the impression that it could do so. The action was followed by the announcement of limits to access to foreign web sites. The state forced all domestic providers to use a state run cache, which had a list of proscribed sites. Ministers were at pains to suggest, to Anglophone audiences and media, that this was a light touch regulation drawing line in the sand – with but a hundred or so (undisclosed) sites forbidden (Lee 2005).

Such intrusion did though risk upsetting the global informational elites Singapore was assiduously courting. The state was rapidly forced to allow commercial traffic to bypass such an insecure data store. Moreover, it would be a fairly simple matter for residents to use a Malaysian service provider and bypass it too. When it was suggested the limits

were unenforceable, Ministers would agree, suggesting it was intended as a signal. Ministers positioned themselves as reasonable people, aware of the new environment yet unwilling to simply throw in the towel, and they would often point to a conservative, 'heartland' of the island that would not want such a capitulation either and needed to feel included in and belonging through this public realm. Inclusivity became a justification for control.

The second factor limiting the success of this 'inclusive strategy', was that content provision was never at the heart of the project. Planners had adopted the mantra of 'build it and the traffic will come'. That is, of the ABC of network development (Access, Bandwidth and Content), they had identified 'B' as the one on which the state had leverage. They saw a vicious circle of low access meaning little incentive for content development intensive and thus little demand. Breaking that circle would, they hoped, open out the system to attract new media industries to provide high quality content that would draw in users. The resulting promotion of ICTs was wholehearted but tended to be one directional -- suggesting that if only the populace realised what was on offer all would be well, rather than looking at what people wanted or how they used what was provided (Tang and Ang 2002). And yet what became apparent to those implementing the much vaunted information gateway was that, for all its technical capacities, it was far less popular than those in 'competitors' like Hong Kong. The sotto voce opinion among the developers, and with some evidence, was that the killer advantage Hong Kong's system had was content that was consumer driven – specifically online gambling on horse racing

and soft core pornography, providing 40% of revenue in 1998. Both were not merely absent from SingaporeONE but precisely what it was set up to prevent.

A similar one-way flow of information characterises electronic government. While Singapore has been a pioneer and exemplar of the electronic delivery of government services to citizens and business, via the E-citizen and GeBiz portals respectively, there has been far less encouragement of political involvement (Lee 2005; Sriramesh 2006). In the late 90s there was a flurry of young educated Singaporeans using the Internet – partly self-consciously thinking how it might open a new public sphere, and partly through a wish to stretch Singaporean space to include those doing graduate work in the US. Initiatives such as Sintercom (Singapore Internet Community) and the Thinkcentre appeared and offered 'civil society' discussions, while the pseudonymously and US hosted Singapore Window offered an alternative news portal on happenings in Singapore. They were tolerated, partly due to policies keen to foster, or be seen to foster, a lively society and culture. Alongside the relaxation of cinema, drama and entertainment restrictions Singapore was trying to foster creative thinking and also make the place more vibrant and attractive to key informational workers from around the world. Indeed various senior bureaucrats and the ruling party began to publicly discuss the rationale of censorship after 2000 which was remarkable in itself (Warschauer 2001). Recent official attempts at fostering digital participation have been focused upon soliciting public comments for consultation initiatives but the take up by both ministries and the public has hardly been enthusiastic (Sriramesh 2006: 715-6). The content of communication is mostly functional and within that the flow has largely been one-way from the state to the

citizen. There have been some limited participatory sites, such as the municipality of Tampines' 'web town' whose discussion board hosted queries and complaints about local services. Notably as postings were public, they produced a strong incentive for the municipality to be seen to respond in a timely fashion. However most developments suggest not a full blown two-way dialogue, giving voice to citizens, but an asymmetrical process where the citizen can only respond within predefined scripts. The focus we might say has been delivery rather than democracy.

Fostering digital civic spaces

Almost the opposite strategy can be seen in Amsterdam's deliberate attempts to mobilise online participation as a means of reinvigorating urban democracy – seen as denuded with less than half of Amsterdam residents voting in the 1990 local elections. A left leaning administration looked at the high levels connectivity and saw a way of both positioning the city as 'a gateway to Europe' and instituting democratic control over the technology. Alongside a range of infrastructural investments in connectivity, it sponsored *De Digital Stad* (the Digital City) - a space of civic engagement and interaction and new mutation of public space for collective exchange, interaction, and negotiation of social diversity. Mobilising an explicitly urban imagery it sought to recreate urban life in a virtual realm. Launched in 1994, DDS soon had 31 `agora' themed by topic for public debate and participation modelled on city squares as a metaphor for a public sphere of information and discussion -- urban metaphors which explicitly invoke 'Athenian participatory democracy' with direct contribution and discussion (Francissen and Brants 1998: 20-2). It became

famous as one of the first online environments where people were conducting parts of their social lives (Hinssen 1995).

The urban imagery was used to try to provide a frame of reference for shaping debate (Francissen and Brants 1998: 39), reanimating a virtual notion of urban 'thirdplaces', such as cafes, for public interaction. The site interacted with real institutions and created a virtual civic arena of '*plattegrond'* and fora for new urban sociality – by both actual inhabitants of Amsterdam and 'tourists' who are 'using' the city while being elsewhere. The virtual city thus had porous borders to outsiders – though the membership costs to have a home page implied a commitment for serious involvement. It was also a private initiative, despite its municipal support, and remained in private ownership growing into multi-faceted amalgam of small communities who share a notion of an 'open city' (Lovink and Riemas 1997: 81-2). In many ways it pioneered precisely what are now celebrated as Web2.0 social software features – inviting participation and community building. This was echoed in the amateur, self-built feel of many of the sites and 'the prevalence of a hands-on, innovative attitude, an engrained spirit of temporality, and the deployment of 'quick-and-dirty esthetics' ' (Lovink and Riemens 2000). It was truly about a digital public since, rather than a communication architecture of 'one-to-many' with the state providing information or services, or indeed a 'many-to-one' structure, where the people might communicate with the state, it enabled 'many-to-many' peer contacts (P2P) **(van Dijk 1999)**.

In part this design echoes its origins from Dutch hackers organisation (Hacktic) using start up funding from the state. Their aim was to create a 'non-hierarchical space for everybody' (Van Meerten 1993 cited in Rommes, van Oost, and Oudshoorn 1999: 481). The urban

imagery was not applied slavishly, but served as navigational tool and more importantly metaphorically invoked the concept of the city as a pluralist house of culture (Lovink and Riemens 2004: 112). But the choice of metaphor highlights the constructed nature of a digital commons. Digital space is shaped very much by how it is conceived – it can be constructed and utilized in different ways. In that sense metaphors (be that of digital highways, electronic hubs or webs) offer guiding principles about how to use and relate to new technologies (Crang 2000: 302). The urban metaphor thus configures the anticipated use – as open and plural as the city itself (van Lieshout 2001). As the designers put it 'We don't want a dull – clean – city that requires political correctness of anybody' (ibid.: 138). Citizens could appropriate spaces and technologies using this metaphoric structure. For instance, while users could create houses (instead of the now familiar metaphor of 'home pages') the amount of memory available for these was limited both overall and thus for each site. The effect was the equivalent of land scarcity, and some users responding by developing a convention of 'squatting' unused sites while others subdivided the memory space available on a site creating 'flats'. Indeed urban processes of 'land values' and locational sorting are common in several other entirely online worlds, such as Alphaworld, with an urban morphology structuring interactions (Anders 1998; Ryan 2004).

As a provision of the early days of internet based development the digital city stands out – with more than 100,000 'citizens' by the late nineties (van Lieshout 2001: 133). But without ongoing state support, the model of public digital culture (Lovink and Riemens 2004) has been progressively commercialized, and the aim of public access transformed until it became effectively a broadband supplier. The trajectory from a free good supplied by volunteers to a commercial enterprise follows the overall contours of the Internet's

development. The issue is how sustainable and how inclusive this model was. Certainly it was a child of its time – its design came from the assumptions and interests of a small group of the 'digerati' and at various points notions of user-friendliness and the technical issues of access got sidelined. While access for all was the goal, 'the user' tended to be seen as a homogenous 'everyone', whose interests and abilities were uncannily similar to those of the designers (Rommes, van Oost, and Oudshoorn 1999). A look at the demographics reveals that after four years 79% of users were men, 74% under 30, 62% had university education and only 22% were Amsterdam residents (van Lieshout 2001: 142). These figures are broadly reflective of internet access as a whole at that time, so this initiative can hardly be said to have widened access.

Moreover, it exemplified clashing ideologies of what widening access should entail. Although the ideal was to improve democracy for Amsterdammers by 'allowing everybody to communicate and debate in a nonhierarchical space' (Oudshoorn, Rommes, and Stienstra 2004: 37) it functioned through a like-minded community of liberal, technologically sophisticated users. Thus the interface was regularly upgraded to 'keep up' with digital developments – which upgraded the cost of the equipment to access it and entailed learning new procedures. Perhaps most telling is that although inspired by the freenets in the US, which had been lauded in places like Santa Monica for drawing in groups such as the homeless and enabling them to debate and contest with city government (Schmitz 1997), it rapidly removed public access terminals.

> 'the most striking reason why the public terminals were removed was that
> the institutions in which they were placed, especially De Balie [cultural
> centre] and the city hall, complained about the people they attracted. Or

> to quote one of the initiators' reflections on these complaints, "They sat
>
> there for hours without ordering anything"; "they gave a tramp-image";
>
> and they made the surroundings look "untidy"' (Oudshoorn, Rommes,
>
> and Stienstra 2004: 40)

A further problem was that the Digital City's notion of access for the general public nd shared identity conflicted with ideas of multiple publics who have specific and differentiated needs. So when the Women's House set out to create a Women's Square on DDS as natural extension of their activities, they encountered resistance. Although several of the designers were women, their ideological position was to say that gender was a non-issue. Indeed as technologically skilled designers, they were very wary of any initiative that tended to associate women with needing special provision. It was thus only through negotiation that they reformulated one of the squares to provide home sites to eight women's issues, to remove banner advertising to make space to offer a bulletin board of women's events and links to (moderated) women only email list (Rommes 2002). The logics of inclusion in DDS implied a uniform imagined user, entering into the collective. It had a clear sense of being a coherent whole – rather than offering multiple avenues to a fragmented population.

Fragmentation and inclusion.

Thus far in this chapter fragmentation of the city, with global connections and rhythms interrupting its coherence, has been seen as a problem for policies using digital media to foster social inclusion. However, global connections and disruptions can function as mechanism of inclusion and recognizing diversity in a variety of configurations of urban and digital space. Thus in Singapore, in spite of local legal (and social) intolerance to

homosexuality, a variety of gay discussion groups sprang up to enable the Singaporean

gay scene (Ng 1999). They could do so since they were hosted, not in the island state but,

in the USA. Here we have a rescaling of inclusion with US based discussion boards being

used to foster discussion and organise illicit (physical) meetings in Singapore. The

opposite sense of differently scaled media might be found in Barcelona with urban

sociality and inclusion expanding beyond the city through things such as Radio Raval.

Located in the old quarter of the Raval with a large immigrant population, a civil funded

media initiative was designed to help foster technological literacy and inclusion. From

out of this sprang Radio Raval which broadcast digitally over the Internet both to

Moroccan immigrant youth in Barcelona but also back to Morocco. In both locations it

opened up a previously unavailable discursive space to articulate the condition of

transnational migration and community developing across the Mediterranean, giving

voice to a marginalized population. The local politicised scene in Barcelona, along with

some small scale government resource, offered the chance to create a new voice that

could not previously be heard in either Morocco or Spain. Bringing two places into

contact in a virtual space is a growing phenomenon for many diasporic groups if we add

cheap telephone cards, voice over-internet telephony and email connections (Vertovec

2004). A different configuration creating new publics in a city would be that of Manilla

where massive demonstrations were articulated around low cost text massaging to mobile

phones (Rafael 2003) or in Indonesia where political mobilisation was centred upon

Internet cafés and users (Lim 2003) or). Both gave access to non-state controlled media,

circulated information and created informed publics in urban settings.

So to examine these configurations of urban experience, I want to use a city that has also sought to position itself in a global media space and foster digital inclusion – Seoul in South Korea. This can be seen in several informatization strategies to create 'e-Seoul: an intelligent city' from 2001, the development of the Digital Media City building towards an Information Network City "where the citizens can share and exchange information and culture *within the city's boundaries*" (Seoul Metropolitan Government Digital City Masterplan, 2001: 19). This has been supported by festivals and events such as Media City Seoul (or the Seoul International Media Art Biennale), which has been held every two years since 2000. The overarching technological aims of the Korean Information Infrastructure speak to competing in a global knowledge economy. More widely though, it is also a country where digital media have intersected with democratisation – for instance OhmyNews, an online portal, has been significant in generating huge crowds for rallies and influencing governmental policy (Kluver and Banerjee 2005: 35). Most notably, after US servicemen who killed two teenage girls were acquitted by a military court, online postings led to candlelight demonstrations of unprecedented scale and social breadth (Song 2007). During and since the 2001 election, online media have challenged existing conservative media (where three established newspapers have 80% of readership) with forms of citizen journalism – from portal/papers like OhmyNews, where three quarters of the content is generated by its 35,000 so called 'news guerrillas', to blogs to platforms like Seoprise that host *non-gaek* (polemicist) pages (Chang 2005, 2005). This turn to online media fits with a society 'democratizing' away from authoritarian rule supported by inter-generational pressure for change. It is also digitally one of the most connected societies in the world where in 2005, 31 million of 47 million

Koreans had access to very high-speed internet and more than 83 percent of households had personal computers (Chang 2005: 928). The result is that

> 'online media function as an epicenter of activities that lead the movement for political reform against conservative hegemony. Reformist netizens are using online media to produce and exchange values and arguments that challenge the existing social order.' (Chang 2005: 933)

Not surprisingly in Korea new media are seen, by more conservative groups, as threatening to fragment society by undercutting traditional socialities (*cheong*) of dense affective ties (Yoon 2003). However, the media are far from a simply virtual phenomena and are tied to a rapid growth of youth culture who are connected, symbolically and literally, with digital media. Seen as antagonistic to the state, they are the subject of periodic moral panics about disconnection from Korean norms of harmonious sociality.

The digital realm is transforming specific urban spaces. Sites of connectivity, such as Internet cafes, are 'technosocial spaces' in that they 'are not only places offering access to technology; they are also social spaces centred on a specific technology' and which bend the physical boundaries of the local space by including actors situated in other villages, cities and countries (Liff and Lægran 2003: 360). Associated with youth culture, and especially Massively Authored Online Worlds and gaming, there were more than 20,000 Internet cafés or *PC Bang*, as they are known, across Korea by 2001. About 50 per cent of all PC Bangs are in the capital region, and almost 25 per cent are located in Seoul (Lee 2005). They foster specific temporalities of behaviour and rhythms of

activities that become the hallmark not merely of these particular buildings but the wider locale within which they are situated. They might be seen as creating and transecting conventional social orders. Although residential broadband has led to a reduction in the total numbers of PC Bangs, they still thrive precisely as a third place of technosociality – allowing young adults to congregate and share online experiences. Sinchon, a university quarter in Seoul, has developed a new urban consumption landscapes based around these technospaces. Many PC Bangs are clustered there, and many newspaper stories, especially those commenting on 'immoral' behaviour in PC Bangs, focus on there. It has become a 24/7 social milieu with all night gaming, but also a social milieu especially for young men that is technologically mediated (Lee 2005). Far from being a virtual cocoon this has become a rebellious, contestatory and 'happening' zone in the city. The same area where symbolically student demonstrators fought the police in the 80s under the dictatorships, they now challenge a conservative social order with games. Here there seems something of the liminal – a fragmentation that is allowing the self expression of identity and a transformation of local culture. Meanwhile circuits of mobile phone messaging are offering new means of sharing intimacies among young women that actually enhance existing patterns of local sociality but without visible public arenas (Yoon 2003: 339-40). Far from a disembedding or loss of local belonging, there is a reembedding and reinscription of the role of older forms of *bang* (as in tea bang, marriage bang) alongside a long established fascination with games (now digital rather than board based). Urban space is being remediated.

What is being produced is a concentrated zone of a different urban culture. Seoul has significantly higher rates of access than the rest of Korea (even other cities) but also higher rates of engagement – that is meaningful use of services, especially ticketing, e-auction, e-party, and e-banking (Hwang 2004: 383). If we look at the use of digital media by adolescents in Seoul and Singapore then it is clear it is the social milieux of friends and contacts, who are also online, that means digital media are extensively used and central to social life (Jung et al. 2005). This is not distinct from 'physical' networks but linked to them. Far from the glossy, commercial vision of the Digital Media City, a different digital city is emerging. One that is woven through diverse digital nodes, from discussion boards to online communities. It reacts to and responds to global networks and ideas but is enabled by specific urban socialities. Its urban rhythms are plugged into online communities that span the globe as well as ones that are intensely local.

Conclusions:

This chapter has picked out symptomatic moments of how online spaces and urban spaces interact. It has shown that one does not simply determine changes in the other. The digital realm is embedded in urban life with new media layering onto existing media and forms, offering new affordances to social practices that transform socio-spatial relations. Moreover, digital connections challenge the notion of a simple geography of the city. The urban tissue comprising these mutually entangled digital-physical practices recombines former and existing elements into new assemblages. These entanglements are quickly becoming the everyday idiom of urban life. In a variety of cases the everyday

public sphere and civil society are now inseparable and almost inconceivable without a variety of communication media.

The brief review of cases here suggests digital inclusion is not separate from real world inclusion, nor irrelevant to the urban poor. It is both linked to 'real world', traditional patterns of inclusion and exclusion but even more notably has consequences for life chances and experiences of inclusion and exclusion. The brief review of different urban scenarios and initiatives offers no simple recipe for either fostering digital inclusion or digitally fostering inclusion. Both Amsterdam and Singapore show the weaknesses of any centrally planned initiative in a fast moving technological environment. Both also invited people to take part in a preformed realm – with intended uses and outcomes. The last section outlined how fragmentation, plurality and disintegration can also create moments of inclusion by transforming the uses of the city and enabling new voices to be heard in refashioned platforms for collective exchange, interaction, and the negotiation of social diversity. They all suggest though that cities can mobilise their local social milieux to interact with new globalised ties and connections. In this sense, they speak to possible developments of urban life that blur the old scales at which life is conducted. If urban planning restricts itself to the scales of physical environments and daily mobility it will be overlooking a large and dynamic part of urban life. However, it is unlikely that these virtual ties and relations can be coalesced into a singular 'digital space'. Rather we are dealing with multiple, partial and heterogeneous relationships that do not add up to a coherent totality.

Table 1:

Measures of internet penetration and intensity of usage which show a stronger significance of online activity in Brazil and China than the gross uptake would suggest, raising questions of hyper-inclusion alongside exclusion:
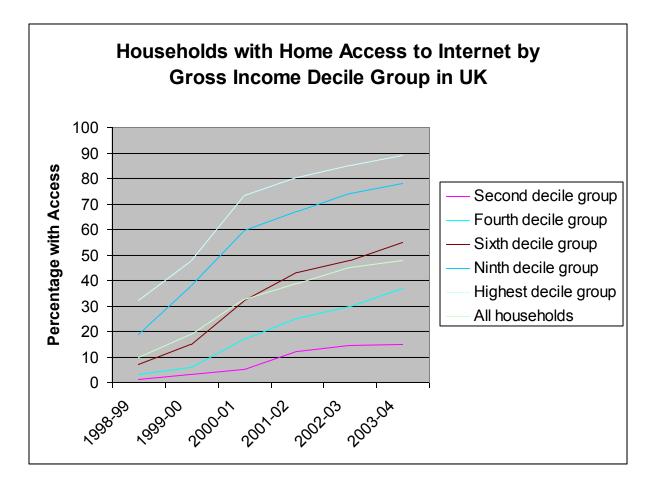
Global Weekly Internet Usage November-December 2005			
Country	**Mean Number of Hours Online per Week**	**Country**	**Proportion accessing within 30 day usage**
China	17.9	Japan	89%
Japan	13.9	Canada	72%
South Korea	12.7	U.S.	71%
Canada	12.3	South Korea	68%
U.S.	11.4	Germany	62%
Mexico	9.2	France	61%
France	9.1	U.K.	58%
Germany	8.9	China	50%
Brazil	8.8	Mexico	40%
U.K.	8.6	Brazil	21%

Russia	5.7	Russia	19%
India	4.4	India	15%

Source: Ipsos, 2006

Figure 1:

Households with Home Access to Internet by Gross Income Decile Group in UK

ONS Household survey data

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