

Architecture, media, and spaces of urban communication

What is the role of the built environment in fostering a communicative city? Such a question immediately raises another: are we primarily concerned with buildings and material urban structures as symbolic resources that themselves 'communicate' certain values, or about urban space as a 'space of appearance' (Arendt 1958) in which fundamental communicative processes of speaking and acting in public *take place*? As I will try to make clear below, the historic tendency to bracket questions of architectural design from the urban as *social* space has become less and less tenable. So, while I begin by exploring the changing role of architecture as a mode of communication, my aim is to bring this history into contact with a different agenda. In this, I share Gumpert and Drucker's (2008) insight that there is productive potential in bringing media and communication scholarship into dialogue with those disciplines, such as architecture and urban planning, which have traditionally taken formal responsibility for the design of urban space. This is not only a matter of responding to the pressing issues that digital platforms raise for cities in the 21st century, but of setting up better frameworks for understanding how we might imagine and evaluate urban futures, at an historical moment in which its communicative potential has arguably become more varied, potent and multivalent.

The built environment as a mode of urban communication

As Anthony Vidler (1978) reminds us in his detailed analysis of the architectural history of 'the street', it has been commonplace in architectural history to conceive of the city as a stage on which public life is performed. If, from this perspective the built environment constitutes a *setting* in which communicative acts 'take place', it is one that also shapes those acts in diverse ways. Perhaps most evidently, the layout of a city has historically carried strong symbolic value. The location of key buildings and their relation to each other gave material form to political hierarchy and social relations (Dovey 2008). The capacity for particular urban structures and material settings to endure over time has served to anchor social practices and political processes across generations, underpinning the assertion by architect Aldo Rossi (1982) that the built environment is a critical dimension of a society's collective memory. From this perspective, the city is not simply a site on which history is enacted, but a particular mode of encoding and storing that history. A corollary to this understanding is recognition that *where* actions take place matters: each and every public act or utterance contributes to the ongoing elaboration of the urban as social palimpsest.

Individual buildings also carry their own communicative dimension. This is perhaps most obvious in elements such as statues, frescoes, reliefs, carvings and inscriptions that are often glossed as 'decoration'. Paul Virilio (1989:38) has evocatively described the stained glass windows of medieval cathedrals as the first cinema, drawing attention to their social role as a powerful mode of communication for largely illiterate populations. But architects have also long understood design to have a 'language' that extends beyond symbolic and

decorative elements to include the way that the spatial organization of particular buildings confers social value (Hillier and Hanson 1984).

Architecture and communication in the modern city

My motivation for this brief recap is to underline the extent to which the communicative function of architecture changes in modernity, as many of the older precepts of both architectural order and urban organization begin to lose their persuasiveness — and even their coherence. While this trajectory has no single point of origin, it was certainly evident in the West by the first decades of the 20th century. It belongs firmly to the era in which cities were being *stretched* in new ways: vertically by high-rise construction and horizontally by the extrusion of the urban into suburbs. At the same time, and as part of the same process, traditional architectural forms were being dethroned in favour of what came to be known as the ‘International Style’, with its radical adoption of steel, concrete and glass construction. Finally, we might note that while some modern architects (such as Le Corbusier) became proponents of a new conception of the city as a centrally planned environment, in practice architects rarely— if ever— held the power to implement such unified designs. The rise of urban planning as a profession, alongside the blunt force of developments in infrastructure engineering, transport and communication technologies, and, above all, the gravitational pull of profit-based urban development settings, all worked to reduce the capacity of architects to shape the modern city in practice.

This context sets up a number of interesting, often conflicting, dynamics. Modern architectural design was initially defined as much by what it refused as what it embraced— notably decorative elements in Adolph Loos’ (1998) famous excoriation of ‘ornament’. However, this did not mean it lacked its own symbolism. While this has most often been glossed under Henry Louis Sullivan’s (1896) aphorism of *form follows function*, such a rational account has never been the whole story. As much as architects such as Sullivan and Le Corbusier sought to align modern architecture with the virtues of machinic efficiency and design functionality, key attributes of modern building don’t easily fit such a narrative. One example is precisely the *verticality* of the modern city. While Sullivan sets a rational tone by presenting the ‘tall office building’ as an economic *necessity* supported by new technologies such as the elevator, he soon slides into a more affective language: “The force and power of altitude must be in it, the glory and pride of exaltation must be in it. It must be every inch a proud and soaring thing...” (Sullivan 1896: 406) Here we can recognize what Rem Koolhaas (1994) later described as the *irrational excess* of verticality, giving birth to a modern urban ‘culture of congestion’ which is not formally planned so much as an unconscious outgrowth of the ideology he dubs ‘Manhattanism’. Such an ideology has proved remarkably persistent. Even today, when it is better recognized that building beyond a certain height is an exercise in diminishing returns and there is greater sensitivity to the environmental impacts of design, global enthusiasm for tall buildings remains seemingly undimmed.

Transparency was another core value extolled by modern architecture. If this was to be achieved in practical terms through design mechanisms such as glass

architecture, window-walls, and open-plan offices and homes, investment in transparency also went well beyond the purely functional. Glass architecture, for instance, was regularly associated with delivering a range of psychological, social and political outcomes, from ending inwardness, secrecy and superstition to promoting a more democratic political system (McQuire 2003, 2008). The broader point I'm wanting to make here is less to do with whether or not these ambitions were well-founded. Rather, it concerns the way in which the discourse legitimating architectural design shifted its ground in modernity. Much of the traditional rationale, based on the tight interlocking of religious, political and social life with architectural and urban form that had characterised the medieval and Renaissance city in the West, had already been lost by the end of the 19th century. Modernist architecture went further by also rejecting the nostalgic reprise of classical elements which had lingered as the preferred model for parliaments, banks, art galleries, libraries and museums in cities all over the world. Columns — and especially the comparison of the tall building to the classical column — were one of Sullivan's explicit targets. Instead, the coherence of modern design was to be achieved at a more abstract level, as design embodied an avowedly rational program that not only guaranteed functionality but demonstrated 'progress'.

I won't labour this point further, except to add: at the same time, and arguably as part of the same process in which architects were radically re-imagining urban design, the city was beginning to be transformed into a radically different experiential and perceptual milieu. In the context of its crowds, its new forms of mobility and display, the modern city rapidly became an environment characterised by perceptual overload — something regularly remarked on from the late 19th century by critics including Nietzsche, Simmel and Benjamin. Perhaps the most striking change was the growing prominence of electric lighting, which gave birth to the nocturnal city as a space of intoxication and disorientation. Broadway's 'Great White Way' was undoubtedly an extreme case, but it nevertheless set the template for what a 20th century city *should* look like. Writing to Malcolm Cowley in 1923, poet and literary critic Kenneth Burke observed: "'Broadway is qualitatively rich; not a single light on it is worth a damn, but the aggregate of so many million lights demands attention' (in Paul 1990: 131).

This ocean of light soon included electrical signage such as the famous 'Zipper' — an early 'interactive' sign consisting of 14,800 bulbs capable of 260 million flashes per hour that opened in 1928 at One Times Square in Manhattan. The Zipper scrolled news headlines — such as the surrender of Japan in 1945— for more than 50 years. Historian David Nye (1994: 191) discusses a 1931 newspaper cartoon showing three men who, distracted by the Zipper, are hit by a taxi. They fly into the air, and as they fall back to the pavement they see the Zipper display the headline "3 hit by taxi in Times Square". The fictitious episode offers a pointed illustration of at least two trajectories: 1) the extent to which modern urban infrastructure could assume explicit communicative functions; 2) the changing temporality of this communicative capacity, enabling events to be rapidly translated into public display. If the speed of this feedback process was

ironically exaggerated for the 1931 cartoon, it is today becoming a key operative dimension of urban life.

To sum up, the modern city poses particular and profound questions for urbanism. Many of the traditional modes through which the built environment had historically 'communicated' —the symbolism and spatial organization of individual buildings, their relation to each other, and especially their temporality as material structures enduring over time— no longer held firm. At the same time, a range of new communicative capacities, from signage and electric lights to telephony and broadcasting, found purchase within the city. Pointing to the growing effects of functional zoning and the standardization of post- World War II architectural symbolism introduced by modernization programs, by the 1980s Aldo Rossi (1982: 95) was moved to argue in that modernization amounts to the *erasure* of the city's traditional capacity to sustain collective memory.

The 'end' of modernist architecture?

Charles Jencks (1977) provocatively dates the end of architectural modernism from the dynamiting of the Pruitt-Igoe housing complex in St. Louis in 1972. The thirty-three high-rise towers, designed by architect Minoru Yamasaki, who also designed the World Trade Centre towers in New York, had been opened as recently as 1954. Within a decade they were infamous for poverty, crime and racial segregation. While the reasons for their decline are complex and not necessarily a direct function of their design, Jencks seized on their demolition as marking the symbolic end of the modernist dream.

The 1970s was undoubtedly an extreme moment for urbanism in the West. This was partly the result of the intensification of certain tendencies that had been evident since the start of the 20th century, notably the expanded scale of the city. Automobile-driven suburban sprawl had created urban agglomerations of unprecedented size. By the 1970s, post-war planning settings implementing functional zoning were increasingly seen as a failure, producing sterile dormitory tracts with impoverished public spaces and a withering public culture. Meanwhile, the lack of infrastructure renewal in the urban centre — often conditioned by 'white flight' to the suburbs — resulted in inner-urban decay in many cities, especially in the United States. The result was a massive loss of confidence in the urban as a viable future.

In addition to the exacerbation of these tendencies, loss of confidence in the city was also influenced by new factors, notably the rise of television broadcasting as a social and political force. Throughout the 1960s and 1970s, a series of influential theorists including Habermas (1989), Debord (1994) and Sennett (1978) all analysed the relation between electronic media and urban life in profoundly negative terms. Even those, such as McLuhan (1974: 366), who held a more positive attitude towards television, argued that its unprecedented *speed* meant "the very nature of the city as a form of major dimensions must inevitably dissolve like a fading shot in a movie". Paul Virilio (1986) went as far as arguing that electronic media not only undermined knowledge traditional architectural practice but also the entire humanist logic that had previously underpinned urban form.

For some architects, the city came to be seen as in-communicative—not just lacking *legibility* in Kevin Lynch's (1960) sense, but in the more profound sense that architecture was no longer *capable* of communication. The kind of urban 'communication' envisaged by postmodern architecture — not just the widely proclaimed return of 'decoration', but Venturi, Scott-Brown and Izenour's (1977) celebration of billboards as a new vernacular populism — proved to be less a resolution of this crisis than its temporary displacement. Once the frolics of postmodern 'irony' wore themselves out, the absence of any shared sense of a social contract conjoining architecture with public life became more apparent. While the modernist narrative of progress and functionality no longer held, nothing had taken its place. The limits of the occasional 'trophy' building were all too apparent.

Influential manifestoes, such as that by Peter Eisenman (1993: 40-43), argued that the exhaustion of all the older orders of architectural reference (symbolic systems, logics of representation, anthropocentric measurement) meant that the only critical gesture left to architecture was negativity. From this perspective, Eisenman (1993: 40-43) argued that the task of critical architecture was to become a *zero text* in which "the process of the narrative becomes the axis of destruction". While this kind of rhetoric recycled the language made famous by an earlier artistic *avant-garde*, it is striking that Eisenman's approach focused almost entirely on the architect as singular urban *author*. It has precious little to contribute to understanding the city as a social —which is to say collective and communicative—environment .

A smarter urbanism?

Despite the pessimism that swept architecture as a profession, the last 20 years has seen something of a revival in urban prospects. This does not mean that the problems have disappeared—quite the contrary. However, alongside major new waves of urbanism in Asia and Africa, which carry their own challenges and contradictions, there has also been a significant reassessment of Western urbanism. Since the 1970s, cities around the world have tried to implement changes in policies and practices, notably those relating to cars and to the redevelopment of older industrial areas. While the results have been uneven, urban revitalization has become a broadly accepted framework. Partly inspired by the concept of the creative city promoted by those such as David Yencken (1988) and Charles Landry (1995), the new paradigm is manifest in documents such as the Charter of New Urbanism promoted by the Congress for New Urbanism (formed in Chicago in 1993). This has influenced the formation of related bodies such as the Australian Council for New Urbanism (2001) and the Council for European Urbanism (2003).

New urbanism broadly seeks to promote quality of urban life by using design of the physical city to support principles such as population diversity of neighbourhoods, pedestrian friendly streets, accessible public spaces, conservation of natural environments and preservation of architectural heritage. In many regards, its agenda remains strikingly similar to that articulated by Jane Jacobs more than half a century ago (see McQuire 2016: 33-35). While the

mainstreaming of these settings represents an improvement over those that dominated urban design in the 1960s and 1970s, it is notable that new urbanism is yet to systematically address the growing impact of digital technology on social interactions in urban space. This absence is both significant and problematic. As I will argue below, networked digital technology has become increasingly important to how urban inhabitants experience and negotiate diverse social encounters. As the digital has assumed a greater role in contemporary experience of urban place, the kinds of questions about architectural authority and authorship that emerged in the early 20th century have been intensified.

Who should be responsible for urban design in the 21st century? Instead of trying to restore or reclaim architectural centrality in ‘authoring’ the city, new urbanism recognizes the need to engage a broader set of stakeholders, including citizens, through more ‘participatory’ forms of planning and design. But realizing such an ambition demands engagement with the digital on at least two levels. The first concerns practical use of digital ‘tools’ to enable a variety of low-cost data-gathering techniques, new place-activation strategies and novel forms of distributed communication with urban inhabitants. The second concerns the need to recognize the deeper effects of networked digital technology on spatial experience and place-sense (McQuire 2016). If the first has seen some uptake in urban planning disciplines, it has not yet achieved the wider recognition it deserves as part of a new urbanism paradigm.

Where the digital *has* become increasingly prominent in urban discourse is in contemporary ‘smart’ city agendas. However, the current dominant models for incorporating digital technology into ‘smart’ homes, buildings and cities remain overly narrow and compartmentalised. While this tendency is not homogeneous, there are several major concerns. As noted by critics such as Greenfield (2013), the ‘smart city’ push has historically been driven by technology vendors who have an interest in selling integrated, enterprise-level ‘solutions’. This feeds into a longer history of computer technology being seen primarily as ‘command and control’ mechanism for *managing* the city.

Even where the focus is intentionally shifted towards strategies for citizen empowerment (for example, in Saskia Sassen’s (2011) vision of an ‘open source city’), the emphasis has tended to be on enabling better access to information *for* citizens, or providing better avenues for citizens to communicate *to* authority. What goes missing is the capacity of digital technologies, with their low entry barriers, low transaction costs and distributed architecture, to enable new forms of horizontal, *peer-based* communication *between* urban inhabitants. In the absence of this broader conception of urban communication the full potential for the historic threshold of the digital to contribute to a wider agenda of urban democratization is likely to remain unrealized.

The contingencies of sociotechnical urbanism

Paul Virilio (2007) famously observed that all new technologies are inevitably accompanied by new accidents. This is certainly the case with mobile digital

devices. People walking along the street while looking at their phone, perhaps while also listening to music with earphones, are engaging in high risk behaviour in busy cities. This problem of so-called ‘zombie pedestrians’ gained a new level of public attention when the Pokémon Go craze swept the world in mid-2016, as people crossed roads without looking, or even being aware that they were entering onto a road. There have since been a slew of media reports concerning various attempts to redesign aspects of the urban environment to better reflect these modes of public behaviour characterised by distracted attention. One set of reports from cities including Philadelphia, Washington, Antwerp and Chongqing concerned experiments with ‘text walking lanes’— designated pedestrian lanes for walkers who were using their mobile devices. A second set of proposals from cities including Augsburg, Sydney and Melbourne concerned the testing of in-ground pedestrian lights at busy intersections, designed so that they would be seen by those looking down rather than up.

These are both fairly minor examples. And, in fact, on closer inspection the text walking lanes all turned out to be social experiments (Washington) marketing stunts (Antwerp) or less than serious initiatives (Chongqing)— although not all the media reporting recognised this. The relevance of citing these projects here is, first, their demonstration of the way that digital technology, social practices and urban space are now tightly entwined. Changes in one domain feed into changes across other domains, creating new potentialities and levying new demands. The deeper issue is how should urban design respond to networked urban space. As the above examples suggest, one response is simply to seek ways to.

Focusing on ways to stop mobile-enthralled pedestrians from causing harm to themselves or others avoidance may be understandable, but, as a response, it remains superficial. As digital media has become ubiquitous, location-aware and capable of supporting realtime feedback— a transition I’ve elsewhere described as the shift from the paradigm of modern media to *geomedia* (McQuire 2016) — we can register a profound reconfiguration of key dynamics of urban life: how we navigate the city, how we behave in public, how we encounter strangers, how we organise with friends or collective groups, how we consume, how we annotate and remember, and, conversely how we are scrutinized, categorized and turned into data, are all being brought into play in new ways. Where the digital was once seen primarily as a virtual dimension that was entirely separate from the materiality of the ‘real’ world, it is now recognized as implicated in, and even co-constitutive of, spatial experience and sense of place. This condition demands a deeper rethinking of the intersectionality, in which the conjunction of specific urban settings with particular digital platforms is producing historically distinctive social-technical situations in which social interaction is simultaneously *embodied* and *networked*.

I’ll try to demonstrate what I mean with reference to recent research on urban screens. One of the most visible differences in contemporary cities compared to those of even two decades ago is the number and variety of video screens that now suffuse the urban environment. In some respects, this infrastructure is the contemporary successor to illuminated signage such as ‘the Zipper’ mentioned

above. At a technical level, the development of LED as a platform capable of supporting video since the late 1990s has rendered the difference between programmable lighting displays and video screens less relevant. Traditional rectangular screens have now been complemented by displays of varying shapes, and scales, extending up to whole buildings dominated by ‘media facades’. ‘Media architecture’ has become a recognized sub-field. While this development signals an explicit recognition of digital media as an integral part of the contemporary urban environment, a conventional design approach to the screen is not enough.

Let me expand this point. When some colleagues and I first began working with urban screens more than a decade ago, we identified what was then a small number of ‘second-generation’ screens. These were characterised by the different articulation of screen with physical setting, but also by different attitudes of screen operators to content and programming. Our research showed that both factors are significant in shaping the communicative affordances of screen installations (see, for example, Papastergiadis 2016). In design terms, a screen placed high up on a building might maximise its exposure, but does not offer the same range of communicative possibilities as street level screens integrated within public spaces that allow people to assemble collectively. While the high screens, like the building-sized media facades, maximize their own visibility, what they ‘communicate’ most often is indifference to the people down below. And this indifference is reciprocated: for most people on the street, the screens above them remain ambient noise. They are not something that regularly attracts conscious attention. This doesn’t mean the screens have no impact — on the contrary, they reinforce perception of the contemporary city as a branded, corporate space—but it does limit the kinds of communicative practices that urban screen technologies might support.

The contrast with ‘second generation’ screens is clear. There is now a significant body of research demonstrating that screens which are better articulated with traditional public spaces such as city squares have the capacity to support new modes of urban communication. What must be added to this understanding is that screen design is only a starting point. In a number of Australian cities, urban authorities have recently demonstrated their interest in exploring more cultural uses of urban screens.¹ However, it is fair to say that understanding of the communicative potential of such digital infrastructure is uneven. In fact, the aims of those initiating and funding these projects are often unclear or contradictory. The commissioning process itself tends to operate according to a traditional linear model that has the effect of marginalising public consultation and leading to a relatively ‘thin’ engagement with place. The end result is the tendency to still understand the screen primarily as a technical object— a structural element within a formal design aesthetic — rather than understanding it as a techno-cultural interface for an ongoing process of *making space public*. This is where a adopting a communicative cities framework could prove particularly valuable— with the caveat that it needs to go beyond the focus on information provision to

¹ Relevant initiatives include Harmony Square in Dandenong (2015) and Yagan Square in Perth (2017).

inhabitants by various authorities, or even enabling feedback *from* inhabitants to urban authorities, but should extend to the use of contemporary urban digital infrastructure in order to support inhabitants *communicating with each other* in new ways. By supporting more creative experimentation in the relation between the digital and the built environment, we might discover the settings that enable urban dwellers to collectively appropriate urban space in the manner that Lefebvre long ago envisaged as a key dimension of modern democracy.

Communication in the digital built environment

I began this discussion by noting that changes in the modernizing city had transformed many of the traditional communicative functions of architecture. Elements such as the look and spatial organization of buildings, their relation to each other, the shifting scale and complexity of urban space, and even the durability of the built environment as something capable of outlasting human life spans, have all come into question. I've suggested that this created a crisis, not only in how architecture understood its role, but in broader challenges to public culture and public space in the 20th century city. I've then discussed more recent re-appraisals of urban design, such as new urbanism and the smart city, and suggested they offer partial responses to contemporary conditions. Where the former largely ignores the impact of digital technology, the latter treats it from a limited, largely technocratic perspective.

In order to better develop what might be called a *right to the digital city*, I'm suggesting a different sense of urban 'authorship' is needed. In this conception, a building or site is not 'finished' at the conclusion of its construction but continues to be elaborated over time through processes of inhabitation and social use. This different sense of architecture, in fact, has a long, if somewhat marginal history. It can be traced through the work of those such as Yona Friedman, Constant Nieuwenhuys and Bernard Rudofksy who all emphasize the importance of public participation in the design and elaboration of the city. It continues in the work of those such as Karen Fanck and Quentin Stevens (2007) who emphasize the need for designing 'loose spaces' — that is, spaces which leave room for people to adapt and potentially transform — and also finds some expression in Hou's (2010) collection on DIY urbanism. It is also evident in the rise of 'urban design' as a field that explicitly attempts to bridge the more aesthetically-oriented tradition of architecture which tends to focus primarily on the design of buildings and spaces with the more socially-oriented tradition, drawing inspiration from those such as Jane Jacobs, William 'Holly' Whyte, and Jan Gehl, which gives greater emphasis to people, processes and activities. In situating itself somewhere between architecture and planning, urban design seeks to retain the granularity of design while also seeking to work at a larger scale than the individual building.¹

Having said this, it is clear there is still a long way to go. Key books in this field still have a fairly impoverished understanding of communication and pay only cursory attention to the digital, focusing on 'ICT infrastructure' or on 'persuasive' communication by architects and designers to the public. The Australian primer, *Essentials of Urban Design* by Mark Sheppard published in 2015 does not mention

communication at all. Even Dovey (2016), who has written one of the more astute and politically engaged books in this space, offers little analysis of the complex ways in which digital media alter the dynamics of urban space. To be clear, I am not suggesting that it is now the responsibility for individual scholars and practitioners such as architects to master a whole range of different domains. The demand for both scope and detail is too great. What I am arguing is that the new intersections of urban materiality, technological systems and social practices, requires new kinds of interdisciplinary collaborations. Approaching the city as a communicative environment in which iterative communication practices are increasingly constitutive of sociality in the digital milieu, offers a potentially productive setting for such interdisciplinary exchanges.

Conclusion: the revenge of the urban object?

Consider, once again, the billboards that began to redefine the city as a communicative space at the beginning of the 20th century. Over time, these signs were gradually transformed into illuminated and interactive forms and then into ubiquitous video platforms. Currently, billboards in cities all over the world, are being upgraded with various forms of intelligent response— for instance, combinations of sensors and cameras that can use face and gait recognition software to profile passing individuals in order to display more targeted messaging. Increasingly, the ambitions of such profiling is moving beyond broad characteristics such as age, gender and ethnicity towards predictive modelling of psychological ‘types’. This shift raises all kinds of issues. One is that what people see and experience in what has traditionally been shared public space may become increasingly segmented in the future. Recent experience of ‘echo chambers’ in online media provide a cautionary tale. Such technologies also have clear potential to contribute to operational forms of social sorting. Finally, they also signal the critical importance of data within the digital milieu. This context registers the intensive ambivalence of the digital milieu, in which low cost connectivity and new potential for distributed public expression increasingly come into conflict with values of privacy, urban anonymity and freedom of movement without being traced or tracked. The situation is made far more vexed because the business models that have rapidly grown up around services such as search, social media, and network provision, are all dependent on broad access to user data. Changing these settings will involve challenging the business models of what are now the most powerful and ascendant corporations on a global scale.

Bringing a communication perspective into this space is helpful in leveraging thinking away from a more instrumental understanding of the digital that tends to privilege its potential for automation, ‘optimization’ and efficiency. These can be important attributes in certain limited settings but become high risk if defined in isolation from social and political domains. But, in this respect it is critical to insist on shifting from a cybernetic understanding of communication that privileges transmission towards a more dialogical and translational understanding, in which communication is a recursive and multivalent process less about ‘delivery’ than ongoing exchanges which engender mutual redefinition

of 'senders', 'receivers', 'channels' and 'messages'. This brings to the fore consideration of new forms of attention and perception, and of their differential power relations. The challenge is to recognize that *every* connection the digital promotes is also a disconnection. Understanding the concatenation of nested scales and patterns of action and interaction demands paying close attention to the new relations between 'local' and 'global', between territory and border, between inhabitation and mobility, that emerge as urban encounters become subject to new alignments and forces.

There is an urgency to this endeavour. The digitization of the city is happening now. This makes it a question for the current generations. Once digital infrastructure is firmly in place, it will be much harder to change. What kind of future city—communicative city—do we want to inhabit? One that enables the commercialisation of all kinds of previously private behaviour including intimate communication by profit-oriented private companies? or the seizure of such data by nation states in the name of securitization? Or one that might foster diverse forms of public communication as a vital aspect of the capacity for urban inhabitants to collectively redefine their own social spaces?

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¹ Dovey (2016: 7) argues "Urban design is distinguished from architecture in that it operates at larger scales and with a primary concern for spaces and connections between buildings. It is distinguished from urban planning through a focus on morphologies and formal design outcomes. It differs from landscape architecture in its concern for assemblages of buildings and intensities of traffic and function. Each of these disciplines has its own languages, territories, borders and ideologies – they are not called disciplines for nothing. Urban design, however, is not strictly a discipline nor a profession. It is a branch of knowledge only inasmuch as the knowledge of which it is comprised involves a complex intersection of many other branches. It is a profession only inasmuch as it appears ubiquitously on the letterheads of architecture, urban planning and landscape architecture firms".