

media city lecture series
Lecture 13.12.06
Katharine S. Willis

Title: Situations

or what happens to interaction space when the 'real world' and the digital world converge....

Introduction

urban theorists/spatial theorists: mitchell, lynch, castells, batty, graham

The media theorist Castells has popularized this space as the 'space of flows'; a concept where space is understood as linking up electronically separate locations in an interactive networks that connects activities and people in distinct geographical contexts. He contrasts this with the concept of the 'space of places'; which he defines as organizing experiences and activity around the confines of locality. The complexity of the urban condition arises when the emerging space of flows is folded into the space of places. The social synthesis between the space of places and the space of flows is realized in public space (Castells, in Graham 2004, 86).

Since 'where' you are no longer defines 'who' you are, new media eliminates a traditional dimension of civic legibility (Mitchell, 1995).

Communications networks tend to be largely invisible and silent, or at most relatively hard to discern, most weave unseen through the fabric of urban spaces, using very little space (Graham and Marvin 1996, 50).

the often dominant cliché of the digital world; that networks enable people to interact with anyone, anywhere, at any time and in any place, illustrates our crude vision of the emerging digital world. Instead, what is required is an emphasis on how humans interact, adapting to access the right amount and the right information in the right time and the right place. (Batty 2000)

ubiquitous computing/HCI: weiser, suchman, dourish, chalmers,

'the field of ubiquitous computing emerged out of observing the way people really used technology led towards thinking much more about the detailed situational use of the technology, and in particular how computers were embedded within the complex social framework of daily activity, and how they interplay with the rest of our densely woven physical environment (also known as 'the real world') [weiser 1999]

'in particular media spaces have been designed around an understanding of the relationship between the structure of the environment and emergent understandings of the actions that takes places there. At its most primitive, it is the relationship between structural and social aspects of the designed environment . Space refers to the three-dimensional structure of the world. Alongside this world of spatial settings is a world of places, which take their sense from configurations of social actions. Places provide what we call appropriate behavioural framing; on the basis of patterns of social action and accountability; places engender a pattern of social responses. Spaces provide physical constraints and affordances, based on the fact that it is easier to go downhill than up, that humans cannot walk through walls, and that light passes through glass. In parallel, places provide social constraints and affordances , based on things like the fact that western society frowns on public nudity, courts and churches are places from more dignified affairs than nightclubs ...The role of space is to frame human action (dourish in Hooke et al 2003)

sociology: goffman, meadowitz,

'The term situated may be used to refer to any event occurring within the physical boundaries of a situation'. Situations are usually defined in terms of behaviours in physical locations. A behavioural region can be described as 'any place that is bounded to some degree by barriers to perception' (goffman 1963)

'It is not the physical setting itself that determines the nature of the interaction, but the patterns of (social) information flow. To include mediated encounters in the study of situations we need to abandon the notion that social situations are only encounters that occur face-to-face in set times and places' (Meyrowitz, 1986, 36-7). But communication technologies overcome the limitations set by such physical boundaries and situations, and in so doing they not only offer more effective or comprehensive access to environments and behaviours but also they provide new opportunities [Meyrowitz].

Situations

The way in which we communicate with others also bears a strong relationship with space, and our interactions with others can be considered as situated in that they are shaped by a rich unarticulated background of social experiences and circumstances [Suchman], as well as being guided by the physical setting [Goffmann]. It is not the physical setting itself that determines the nature of an interaction, but the patterns of social information flow i.e. all that people are capable of knowing about the behaviour and actions of themselves and others.

Qualities of metric space

In terms of structure, the familiar physical model considers space as a three-dimensional structure, where qualities such as location can be defined in terms of exact metric co-ordinates. Alongside this domain of spatial settings is a world of social settings, which take their sense from configurations of social actions. The Euclidean qualities of spaces afford essentially physical constraints, based on the fact that humans cannot walk through walls, that objects do not float, and that light creates shadows on surfaces. In parallel, space also provide social affordances, based on socially acceptable norms such as the fact that we have different types of conversation on street corners than in bedrooms, and we would feel comfortable shouting at a football match, but not in a church. Space frames human action and interaction in multiple and varied ways. In interaction there are many aspects of the 'real world' which can be exploited as part of a spatial model. Many of these are based on the Euclidean or topological understanding of space, and can be interpreted in terms of the corresponding spatial capabilities of individuals can be summarised as follows:

Physical separation: the concept of distance describes the state of two objects which cannot by definition be physically present in the same location, and correspondingly that physical separation or absolute position is a key property of any person or thing.

Bounded-ness: the idea that space has extents which are not infinite affects how structures of spatial separation and constraints are understood.

Presence: If we take the case of individuals, then any experience of space is framed by a subjective awareness that they have a physical or bodily presence.

Linkage: Although this is implicit in the previous descriptions, the concept of linkage or relation is inherent in space.

Temporality: In three-dimensional space, time is seen as the fourth dimension.

urban public space

Public spaces or territories have a temporary quality and an individual has free access and occupancy rights (Altman 1975, 118). These areas are often considered as 'in-between' spaces; streets, parks and transit routes. The underlying dichotomy of public versus private in public space is rendered more fluid by new locative technologies, which in turn imply a fundamental transformation in the norms of public action and conduct (Couldry, 2002). Social interactions and activities are dependent on settings or situations (Goffmann 1969) and electronic media can be understood as overriding the boundaries and definitions of situations supported by physical settings. Since 'where' you are no longer defines 'who' you are, new media eliminates a traditional dimension of civic legibility (Mitchell, 1995).

The consequence of communications technologies in urban settings is that multiple social realities can occur in one place. The same physical space may be caught within the domain of two different social occasions. The social situations that occur in these overlapping behaviour settings support gatherings that possess a special characteristic in that they exist on more than one social level. The possibility that the same physical space can come to be used as a setting for more than one social occasion is regularly recognized. Thus in the case of public streets, there is a tendency in western society to define these places as the scene of overriding social occasion to which other occasions should be subordinated (Goffmann, 1963, 20). For example, presence in public space and interaction has traditionally been equated with face-to-face contact. Yet, presence in public space as mediated by new technologies has a different type of aesthetic, no longer dominated by visual access but by informational access. The features and structure of the interaction is enabled by a connection, which is not necessarily achieved through physical movement from one location to another. As such, everyday actions and behaviours no longer belong to particular places, and are now multiplexed and overlaid; there now exists the possibility to switch rapidly from one activity to another while remaining in the same place, so we end up using the same place in many different ways. On one hand this gives rise to confusion, and ambiguous and contested zones emerge (Mitchell 1995, 101), where the multiple and overlapping behaviours created create disparate, fragmented and discontinuous spatial references. On the other hand we can consider space as a field of interaction, composed of intersections of mobile elements it is in a sense actuated by the ensemble of movements deployed within it (de Certeau 1984, 117). In this case space is perceived as practiced place rather than a fixed and intransitive bounded entity, and as such emerging practices can only serve to enhance the richness of our spatial experience.

Layered space

But communication technologies are inherently spatial, in that they enable communication at a distance, and as such free communication from a fixed location in urban space. On the one hand such communications technologies, which whilst crucial in supporting the mobility and flux, are also fixed networks that must be embedded in space. But they also consist of physical systems made up of links and nodes that are constructed fundamentally of spatial systems linking together places (Hepworth 1987 quoted in Graham and Marvin 1996, 50). The media theorist Castells has popularized this space as the 'space of flows'; a concept where space is understood as linking up electronically separate locations in an interactive networks that connects activities and people in distinct geographical contexts. He contrasts this with the concept of the 'space of places'; which he defines as organizing experiences and activity around the confines of locality. The complexity of the urban condition arises when the emerging space of flows is folded into the space of places (Castells, in Graham 2004, 86).

Mobile and wireless technologies

Mobile and wireless technologies are a form of ubiquitous computing that create numerous opportunities for communicating in multiple and varied locations without the requirement for a wired connection. Such technologies include mobile telephones and portable PDA's, short-range transmission technologies such as Bluetooth, and RFID, positioning information delivered via satellite to GPS devices and last but by no means least WiFi enabling wireless internet access. All of these have been proliferating and have over the last decade become common means of enabling communication. As such technologies move out of structured and enclosed physical environments their interaction with the physical world reconfigure established structures of spatial identification in physical environments. Simply put, physically bounded spaces are less significant when information is able to pass through walls and simultaneously travel great distances. As a result, where one is has less and less to do with what one knows and experiences. (Meyrowitz 1986 viii).

Nodes and networks

As everyday public space becomes increasingly layered, the nature of spatial identity in these environments is changed. But communications networks tend to be largely invisible and silent, or at most relatively hard to discern, most weave unseen through the fabric of urban spaces, using very little space (Graham and Marvin 1996, 50). These networks bind together places in many different spatial and temporal positions in the form of real time networks. The result is that there is a general tendency for people to ignore or even deny the effects of the invisible environments of media simply because they are invisible.

The immateriality of communications networks is not just as superficial outcome of the technology infrastructure, it is fundamentally intrinsic to the nature of data transmission in such networks. This is in part because such information transfer is achieved through what are termed packet networks. When information is transmitted in a communications network a process occurs where the original data is divided up into uniform sized parcels of bits, called packets. In preparing data to be sent in the network, each packet is labeled with a header stating from which message it was drawn, its position in the message and its destination. Each individual packet is then sent through any communications route that has capacity, so that the original data is literally totally dispersed in the network, and only realized as a whole again when it is reassembled upon reaching its destination (Pool 1990, 33). At each end of the network connection a node provides the sites of arrival and departure for the data, where temporary data may also be further processed or recorded onto memory. Consequently one can consider the nature of information flow as enabled only through its own fragmentation, such that it is not possible to conceive of the information as sustaining any materiality during transmission. Whilst in transit the content and form of information is thus everywhere and nowhere, in fact it can only be tangibly realised at the node. In wireless networks the data is not even confined to a cable linking two nodes, but is instead transmitted through the ether at frequencies or wavelengths close to the speed of light. These abstract material characteristics of communications technologies mean that it is both conceptually and practically complex to form adequate perceptual parallels with existing concrete and imaginable concepts of space.

Mediated spatial Settings

If we look at the concept of situation from the perspective of the physical setting, this is often seen in terms of a mute position in metric space. This treats the physical position in a proximity sense, by identifying interaction as related to a particular location in space. However this fails to take account of the social aspect of spatial settings. Communications technologies, originating with the telephone have enabled interaction that was previously defined by physical settings to be remote. Mobile and wireless

technologies blur the definition of location even further. Mediated encounters are no longer confined to face-to-face interactions in set times, with the consequence that is not the physical setting itself that determines the nature of the interaction, but the patterns of social information flow [Meyrowitz]. The information spaces of these technologies enable a more complete disassociation to occur between the setting and social behaviour. In so doing, they overcome the limitations set by such physical boundaries and situations, and in so doing they not only offer more effective or comprehensive access to environments and behaviours but also they provide new opportunities [Meyrowitz]. These technologies reconfigure Euclidean spatial frameworks framed around spatial proximity and bounded-ness, in a manner which is fundamentally different from the PC internet [Ito 2005]. Thus, the previously defined aspects of the 'real world' which can be exploited as part of a spatial model, need to be informed by the aspects of the affordances of mobile and wireless technologies, and can be summarised as follows:

- **Separation:** Displacement in layered media spaces is not confined to the physical properties of 'real world' objects, but also extends to include the specific ranges of technologies. For instance Bluetooth, enables interaction within a radius of approx. ten metres, whereas WiFi nodes offer access within a range of up to one hundred meters. As such the definition of interaction in a space of communication flows is structured around spatial nodes of opportunity.
- **Bounded-ness:** Regions are not only defined by spatial extents, but also by patterns of informational or social access. Consequently, collectively defining boundaries becomes part of the pattern of communication; for example the common practice of asking for and reporting location at the beginning of a mobile phone call. Boundaries are still an omni-present characteristic of space, but moving in and out of bounded zones can occur much like the flicking of a switch, rather than involving some form of graduated change.
- **Presence:** Technologies create a form of shared background space, not based on physical presence. Presence becomes more ambiguous, since previous reliance on the visual to orientate and structure awareness in space is augmented with non-visual presence in technological networked spaces. For instance, a form of co-location becomes possible, where interaction can occur in represented models of the 'real world', whilst simultaneously being physically present in the real-world. One of the consequences of this is that actual physical co-presence; or the 'flesh meet' [Ito 2005] is elevated to a higher level of importance.
- **Linkage:** The concept of linkage is intensified, and in many ways more subtle and differentiated levels of connectivity frame interaction. Action in network type structures is characterised by a whole array of weak and strong links. Networked infrastructures start to dominate over physical spaces.
- **Temporality:** Interactions occur in a 'real time', which is de-sequenced and person centred rather than a global time. Stability and permanence are comprehended as particular qualities of the 'real world', and fluidity and change are valued. As such time becomes more malleable and capable of division into non-linear segments

Techno-social situations

The physical distance over which one experiences another varies according to many factors, as does the types of events or occasions which often structure interaction in spatial settings. Communication technologies, like physical places, create structures which include and exclude participants, and in so doing they can create social boundaries equivalent to the walls and windows in physical space. These boundaries define the nature of social access to situations, and also help to frame an awareness among individuals of whether an encounter is accessible to them or not. (Ito 2005).

Summary

The physical 'glue' holding space together is thus transformed, such that instead of thinking of specific places with boundaries around, they can be imagined concurrently as articulated flows in networks of social encounters and situations.

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