

CONFIGURATIONS OF SPACE

DIGITAL TECHNOLOGIES IN PUBLIC SPACE

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Introduction

Networked technologies, mobile platforms and screens are rapidly changing the way space is conceptualized (Manovich 2005; McQuire 2006). They increasingly play a role in shaping the identity of the physical world surrounding us, particularly by offering digital spaces that challenge the status of the physical reality of the material world. The aim of this essay is to conceptualize the experience of place as a result of the tripartite relation of the subject, digital technology and space. I propose that there are three conceptual configurations of space as a result of this relation: dialectic, synergized and symbiotic.

To develop these configurations I build on hybrid space put forward by Adriana de Souza e Silva (2006) in relation to digital mobile devices. Her approach collapses the traditional digital/physical space dichotomy most theories continue to underscore. From my analyses, I suggest that digital and physical space come to synergy when agency is enacted. Janet Murray defines agency as “the satisfying power to take meaningful action and see the results of our decisions and choices” (121). This agency is digital technologies’ ability to offer contemporary subjects, as *media engagers*, the means to take action within physical space. Symptomatic of this enactment is either synergized or symbiotic space. The chronology of the configurations as presented reflects the “intensity” of enacted agency.

The first chapter is an examination of contemporary public space and how its relation to digital technologies spurs a dialectic space. First off, I establish a theoretical framework. I start with an interrogation of the “fate” often assigned to contemporary space. Specifically, I will discuss the idea of the non-place as put forth by Marc Augé (1995). Herein the role of digital technologies is addressed as contributing to a sense of “placelessness.” In order to reflect on placelessness, I move on to reflect on Anna McCarthy’s (2001) recognition of the site-specificity of the TV screen. It concerns the materialization of place consequent of a dialogue between the ontological (space-binding) and geographical (the social, economic and political forces that shape physical space) notion of the screen. The existing commercial infrastructure is argued to respond to the mobility, or *public flow*, of public space.

The concept of public flow is explored in the context of the twin paradox Anne Friedberg (2006). Of the twin paradox, that of mobility/immobility is the first paradox. It stipulates the necessary relative immobility of the screen’s viewer in

contrast to the mobile images of the screen. The second paradox of materiality/immateriality relates to the screen as "interface" partitioning the virtual space beyond the frame of the screen and the physical space in which the viewer resides. I use the twin paradox as a theoretical tool by which to reflect on ideas concerning the dynamic boundaries of virtual/physical spaces and public/private spheres, the dialectic space, as a result of the ubiquity of digital technologies within public space.

Having established the tools by which to theorize dialectic space, I then offer the practical implications through McCarthy (2001). She interrogates three main positions of televisions in public space: overhead screens, single viewer structures and screens in store windows. The positioning of the screen prescribes a certain address and has the potential to both fragment and homogenize the public. In brief I discuss how these immobile technologies relate to the mobile device. As a whole this reflection demonstrates a ludic relation between digital/physical space and the public/private sphere. It is this playful encounter, a consequence of the introduction of digital technologies, that makes for a configuration of space best typified as dialectic space.

In the second chapter, I examine hybrid space. De Souza e Silva finds that existing theories on digital spaces focus too heavily on technology. In the case of digital portable devices, other than simply layering or augmenting the physical with digital information, the hybridization of the two, De Souza e Silva argues, is made possible by mobility and sociability. I draw a comparison between the Urban Screens research project and De Souza e Silva's concept of hybrid space. The research project examines the possibilities of using the existing commercial infrastructure of screens to battle "the sense of placelessness" that places are increasingly seen as subjected to. I suggest that placelessness is not only effective of the increasing commercialization of public space, the approach of the Urban Screens project to the issue, but in light of hybrid space, can also be seen as stemming from the institutionalization of the digital/physical dichotomy through a focus on the potential of technologies to create digital spaces. This opposition prescribes that engaging with digital space is an estrangement from physical space. Such a configuration of space, I would suggest, is a dialectic space. The subject is conceived of as oscillating between disparate (digital and physical) spaces.

I zoom in on the facets of social relations and mobility that De Souza e Silva stresses as requirements for hybrid space and place this within the frame of relations

evaluated in chapter one. I put forward that the prerequisites for a hybridity between digital and physical space is not limited to sociability and mobility, but can be expanded to agency *an sich*. Agency is perceived as the binding factor between digital and physical space. Instead of hybrid space, based on mobility and sociability, I therefore propose to think of a synergized space. Whilst the configuration of these conceptual spaces is the same (the collapse of the digital and physical dichotomy) the understanding of how this configuration is met, differs.

In the third chapter, having put forward that agency “synergizes” digital and physical space, I explore this capacity of agency to reflect on the modern subject as media engager. I define the media engager using the idea of the theoretical console as proposed by Nanna Verhoeff (2008b) which functions as a methodological tool by which to theorize the range of practices single digital technologies facilitate. By focusing on the practices of the console, a first step is made towards exploring the various ways in which digital technologies can grant subjects agency.

Next I return to how in dialectic space, by means of enacting agency, has the ability to transform the configuration of space to synergized space. I point out how this stipulates a re-embodiment turn, based on the potential of digital media technologies to influence action in or a reflection of the physical world. After this insight into the media engager, I provide a more in-depth analysis of agency in light of screenic and non-screenic media and define the re-embodiment turn.

Having discussed the media engager as human agent, I then examine the relation digital/physical space with respect to non-human agents. Like many other theories considered with digital/physical space, De Souza e Silva’s point of departure is a human agent. A criticism of her work could therefore be the omission of non-human agents within her analysis.¹ I suggest that agency is considered in relation to non-human agents. This network of non-human (and human) actors has been envisioned as Internet of Things. Consequently, the manifesto by Bruce Sterling (2005) entitled *Shaping Things* will be discussed. In the book Sterling assesses human to object relationships and prophesizes that the digital will enable the sustainability of the physical world. Herein the division digital/physical is demonstrated to be archaic and, when we reach this configuration of space, we enter a world best conceptualized as *symbiotic space*. It can be interpreted as a synergized space between human and non-human agents.

¹ I would like to thank Klaas Kuitenbrouwer who has been a valuable conversation partner reflecting on locative media and non-human agents.

In conclusion, I summarize the exploration of the aforementioned theories. This will conceptualize synergized space that digital technologies facilitate through agency. I conclude that the scope and scale of ludic relation between digital and physical space, within the domain of public space, is far more complex and deeply interrelated than presently theorized/recognized. Finally, I propose that if the prophecies by scholars like Sterling prove to be correct, the division between the digital and physical will become increasingly obsolete.

Present-Day Dialectic Space

In this chapter I provide an understanding of contemporary public space as a space of mobility and, as a result of the ubiquity of digital technologies, a dialectic space. To start off, I interrogate contemporary space as non-place through Augé (1995). In relation to this I discuss McCarthy's (2001) site-specificity of the TV screen. This concept is explored in the context of the twin paradox Friedberg (2006) in order to reflect on ideas concerning the oscillating and converging boundaries of digital/physical spaces and public/private spheres. The existing commercial infrastructure is argued to respond to the mobility, or public flow of public space.

Consequently, I reflect on McCarthy's interrogation of three main positions of televisions in public space: overhead screens, single viewer structures and screens in store windows. In brief, I relate her analysis to the impact of mobile devices circulating public space. Together, these reflections provide the means by which to understand dialectic space. The dialectic space is a conceptual space that "captures" the tension that occurs between digital and physical space. The introduction of digital technologies in public space has equally contributed to the radical transformation of the traditional conceptualized spheres: the public and the personal.

Public Space, Site-Specificity & Mobility

Prior to the introduction of digital technologies in public space there was simply physical space. If augmented by billboards and signs, these were material structures. The introduction of digital technologies, however, complicated this status quo by "creating" virtual, digital spaces. The concrete physical reality encountered the abstract digital and as a result the traditional concepts of space and time were challenged. The French anthropologist Marc Augé (2005), commenting on a technological revolution in general, marked this new period as that of supermodernity. The primary characteristic of supermodernity is excess (Augé 30). One of the excesses concerns the excess of space that manifest as *non-places*.

Non-places are the spatial excess consequent of the increased mobility of goods and passengers that typify supermodernity. The non-place materializes as "the installations and the means of transport" that organize mobility (Augé 34). They are the hubs in the flow of goods and people (Augé 104). Exemplary of this phenomenon are supermarkets, highways and airports. Characteristic of these non-places are the "instructions for use." They are part of the codes, messages and entries of the non-

place that help define it. These instructions are “prescriptive (‘Take right-hand lane’), prohibitive (‘No smoking’) or informative (‘You are now entering the Beaujolais region’)” (Augé 97). They have the practical function of organizing the flow, or as Augé puts it the “traffic conditions,” of the non-place. They are thereby structured brackets of space and can be measured in units of time. This description is a testament to their instrumentality. In fact of matter, most public spaces today are places of transit.

The rhythm of public spaces is, on a larger scale, reflective of the social, political and economic institutes that characterize society. These factors determine, in part, what McCarthy sees as the site-specificity of the screen. Therefore screens in public space, aside from shaping space, also tell us something about the space. The site-specificity relates to the materiality of the TV screen, a geographic approach to TV screens, and the dialogue it has with the ontological approach. The former approach concerns itself with the space-binding capacities of the technology. McCarthy states, “Because it [the television set] is *both* space-binding and site-specific, enmeshed in, and constitutive of, the ambient flow of everyday life in the home and other places, the television set must be seen as a central force in the dialectical construction of a place” (2001:105). To my mind, inherent to the site-specificity of screens is also a *content-specificity*. Whilst the content is plural in manifestation, it usually serves a general intent (commercial, informative, social or other).

Returning to the ontological and geographical approach to TV screens, the relation between the two, reduced to site-specificity, can best be understood in relation to the twin paradox of mobility/immobility and materiality/immateriality. The paradox of mobility/immobility concerns the screen as an object, fixed in place, and necessitates that in order to engage with the content of the screen the viewer be anchored immobile directly in front of the screen. Public screens are situated fixed in public space. Passers-by thereby need to reduce speed, if not come to a temporary halt, in order to engage with the content of the screen. The screens of the commercial infrastructure demonstrate a “response” to the mobility of the traveler.

Screens in public space are predominantly designed for fast consumption. Most are what McCarthy labels textual screens. About these screens she notes, “They are cheap to produce, requiring nothing more complicated than an electronic character generator, and the minimal cognitive and emotional investments they solicit are easily in the coming and goings of public space” (McCarthy 212). What she

describes as the coming and goings of public space can be interpreted as part of this ambient flow of everyday life described by McCarthy commenting on site-specificity or, what I call, the *public flow*. To me this resonates with the flow of passengers Augé describes as a feature and function of the non-place, albeit that McCarthy offers the forces (social, political and economic) behind the materialization (the flow).

The response of the screen's content to public flow is apparent in the W8 screen at Utrecht Central Station, the Netherlands. To prevent the traveler from the monotony of watching the same segment twice, the programming has been adjusted to correspond to the seven-minute average waiting-time of travelers.² Another interesting example of a commercial screen-installation that reflects flow is the SyncMovie system at Amsterdam Schiphol airport. It uses twelve projectors that project on a 36 meters long screen.³ It enables commercials to stay in sync with the viewer on the conveyor belt. It is a rather ingenious means by which to escape the restraints of a mobile audience. Additionally, it demonstrates explicitly how digital space enters a dialogue with physical space.

The Address of Screens

The overhead placement of the screen addresses the viewing subject as an anonymous individual (McCarthy 121-122). McCarthy notes that whilst the position grants public viewing access, it places the screen out of reach, designating it as private property (121). The overhead placement of screens, which makes it accessible to a mass, treats the passers-by as a homogenous group. The paradox of public access of overhead screens set against the private ownership of the public screens, defines the commercial model of most of the existing infrastructure in public space.

In the case of the private screen in public space McCarthy discusses that "We hesitate between two modes of spatiality – distance and proximity – so that mediated images seem more "live" than the person with whom we are sitting [...]. The triangulation of spectatorship and conversation produces a sense of distraction that stems less from the "privatization" of the space via the screen than from the incompleteness of this privatization process" (124). The confusion that arises

² For more information regarding W8 see: <http://www.cbsoutdoor.nl/web/Producten/Digital-Outdoor/W8-Digitaal-Scherm.htm> (accessed July 4th 2008).

³ For more information regarding the SyncMovie system see: <http://www.howtech.nl/> (accessed July 4th 2008).

instigates a reflection on the position in physical place. The flaunting of the spaces is very interesting. I like how McCarthy uses the materiality of the screen to position the immobile viewer in order to reflect on relations in physical space initiated by digital space. It concerns the effect of the triangulation for the experience of place and demonstrates an act of reflexivity as the result of the materiality of the technology. Whereas later on in this paper I examine reflexivity between digital and physical space stipulated by "content," this is a superb manner by which to appreciate the implications of digital technologies on the experience of place without losing sight of the materiality (and visibility) of these consoles.

Multiple viewing stations have a different effect than overhead placement. They provide "the ability to separate oneself from others through spectatorship" established by means of what McCarthy calls "sensory isolation" and through a "visually induced sense of travel" (2001: 137). However, in these situations the institution either controls the content of what is screened, or, as is the case in inflight-entertainment, social, economic and political forces restrict the parameters of choice.⁴

It should be noted that the terms used by McCarthy (separation, isolation and visually induced travel) presuppose a partition of the visual field, beyond the frame, and the inhabited physical space. Hereby engaging with these "private" screens invokes an estrangement from one's direct surroundings.

Within the paradox of materiality/immateriality the moving images can mobilize the viewer's gaze. It draws a border between the physical space inhabited by the console and its viewer and the immaterial images flickering on the screen. The binary opposition underscores placelessness as it prescribes that the space of the virtual is unrelated to the space of the physical. Herein digital technologies are assessed in their technological capacity to construct digital spaces.

The last of McCarthy's analyses focuses on what she has labeled as the store window position of screens, which she uses to analyze multiple viewing positions. It is what Verhoeff identifies as a "composite dispositif." The composite dispositif is "a convergence of screen paradigms within a single dispositif" (Verhoeff 2008b: np). Verhoeff hereby provides a theoretical conceptualization of multiple screen formats in places. To be more specific, Verhoeff (2008a) defines this as "an arrangement that is

⁴ To read more about this subject matter see: Govil, Nitin. "Something Spatial in the Air: In-Flight Entertainment and the Topographies of Modern Air Travel." *Mediaspace: Place, Scale and Culture in a Media Age*. Eds. Nick Couldry and Anna McCarthy. New York: Routledge, 2004. 233-252

comprised of many different screens and composes a screenspace for variously distracted and attracted, mobile, and passing spectators” (np).

The composite dispositif is effectively a *digiscape*⁵ and prescribes the *digiscaping* of public places. The digiscaping entails a process of oscillating (the selection of a technology to engage with) and merging the spatial and temporal dimensions within public spaces within the dialectic space. The result of this process can lead to the configuration of space as synergized. How this is accomplished is addressed further on.

In light of Augé, the instrumentality of present day places has been established. In relation to McCarthy these places have been characterized as spaces of mobility with a public flow. The travelers of public space, in turn, are subjects to the process of digiscaping as a result of the composite dispositif.

The myriad arrangements of screens, and digital technologies *an sich*, establish the primary component of the dialectic space. They contribute to the invisible compartmenting of space. The description of a distracted and attracted spectator clarifies the “mess” digital technologies make of the once homogenous, physical public space. I use homogeneity here to refer to a physical space that is not affected by a digital space such as is the case in dialectic space, fragmenting the public. The subjects that are part of the population have the capacity to define their own experience of place by selecting which digital technology they engage with. It is the outcome of digiscaping. In effect, digiscaping is the process of being “torn” between spatial and temporal set-ups as a consequence of the play of the digital and physical space. This play defines the dialectic space.

Mobile Devices

Mobile devices have contributed to the realization that digital and physical spaces are not by default disparate spaces. Unlike large-screens, mobile devices have mobile users. They are *person-specific* first, *site-specific* second. In other words, in contrast to large, static screens in public space, they are the property of the individual. Furthermore, the console is mobile and its mobility is in direct relation to that of its owner. Thereby when discussing mobile devices, however, these paradoxes are broken open.

By means of mobile devices, individuals are able to artificially cut themselves out of the physical public space retreating to a mobile digital private sphere. These

⁵ It is a combination of the terms digital and landscape to identify the myriad of competing digital spaces within (and also competing with) the physical public space.

technologies are suggested to have instigated the de-centralization of the urban and in effect, the dissolution of city centers by replacing the need for corporeal mobility. Further on, when developing the concept of the media engager, I argue that such an impression is not entirely accurate. This is due to the reflexive relationship digital space demonstrates to physical space. I will furthermore propose that this reflexive relationship is also true in the case of particular *stationary digital technologies*. In other words, although mobile technologies have contributed to an understanding of space that unifies digital and physical space, on the premises of agency, on which I elaborate further on, the synergy of spaces is equally applicable to stationary digital technologies.

The Prerequisites of Hybrid Space

In this chapter I assess hybrid space in relation to dialectic space and propose that the agency digital technologies grant its users, collapses the digital/physical dichotomy. First off, to comprehend what De Souza e Silva means with hybrid space, I begin by tracing her discussion of the concept in brief. Herein it will become apparent how De Souza e Silva sets hybrid space against the background of other theories that conceptualize the relation between digital and physical space. Her criticism of existing theories is that they focus only on the space constructing capacity of technologies and not their social use (De Souza e Silva 9-10). As a result, she states, these analysis position the binary opposition digital/physical space. When mobility and sociability is taken into consideration, however, De Souza e Silva finds the dichotomy is seen to collapse into a hybrid space.

Consequently, I interrogate her prerequisites for hybrid space, namely sociability and mobility, and evaluate it in relation to the analysis of the Urban Screens project. I discuss placelessness, mobility and sociability in relation to the digital/physical space dichotomy. As a result of this assessment, I advocate that the spatial synergy of hybrid space is better understood as the result of the agency acquired by digital technologies and its enactment.

De Souza e Silva's Hybrid Space

De Souza e Silva (2006) begins with the interrogation of the definitions given by Paul Milgram and Herman Colguhoun Junior of augmented and mixed realities, two trends of spatial configuration. The construction of these two realities is focused solely on the role of technology and hereby, according to De Souza e Silva, neglects the significance of communication and sociability. As effect the graphic/digital information superimposes the physical reality (De Souza e Silva 9). Herein the division between digital and physical space is maintained.

Next De Souza e Silva comments on the approach by Hiroshi Ishii to mixed reality. The appreciation of mixed reality as presented by Ishii respects the materiality of interfaces. In other words, Ishii recognizes that the technologies we engage with are material objects. The interaction with and perception of digital space, with no exception, thereby relies on materiality. Furthermore, through a reflection on wearable computing in relation to mixed realities, Ishii underscores the role of mobility in "blurring" the division between digital and physical space (De

Souza e Silva 9). However, whilst the importance of mobility is recognized, De Souza e Silva passes the criticism that communication and sociability is not incorporated in Ishii's analysis. Hereby spatial hybridity is not fully realized.

De Souza e Silva then examines augmented reality as put forward by Lev Manovich. Augmented space is a new physical space defined as the "overlying dynamic data over the physical space" that is augmented with data, cell space and computer displays, or extracting data in the case of surveillance (Manovich 4). Manovich takes artwork in public space into consideration, thereby within his reflection on augmented space, extends the scope of interrogation beyond an evaluation of technology itself. Manovich provides the example of the Museum of Modern Art (MoMA) where visitors are given an audio tour of the museum, hereby equally charging the material place with digital coating. He hereby includes mobility and a continuous connection to a digital space in his assessment.

As a result, De Souza e Silva finds that in Manovich's augmented space, "the flows of information that previously occurred mainly in cyberspace can now be perceived as flowing into and out of physical space, blurring the borders between both" (10). However, since augmented space does incorporate a reflection on social interaction and communication, she remains unsatisfied with how the interrelation digital and physical space is theorized. In effect, then, augmented space is still the layering of the physical with the digital, rather than experiencing the two as one hybrid space.

Urban Screens: Sociability and Mobility

The primary focus of theories surrounding space in relation to digital technologies, as seen in the discussion of De Souza e Silva, has been on the technology. It concerned technology creating digital spaces and overlooked the social use of these technologies. As a result of the prevalent address of the technology of digital devices, the dichotomy digital/physical space has institutionalized.

The ubiquity of commercial screens in public space has prompted a research project entitled Urban Screens. It is designated to explore the social potential of the existing commercial infrastructure of digital screens. The ambition of the project is formulated as a battle against a feeling of placelessness. As social interaction and communication are so explicitly conceived of to battle the feeling of placelessness, it functions as an excellent case study by which to understand De Souza e Silva's hybrid space. My reasoning is two-fold. These are dealt with respectively, and will help clarify the connection between social relations, mobility and placelessness within

the broader context of the digital/physical space dichotomy.

First, because the Urban Screens research project is directed at exploring how the existing commercial infrastructure of digital screens can be used to battle a feeling of placelessness. Struppek finds that the traditional rhythm of the city has been destroyed by an independence from place and time and that the existing infrastructure of commercial screens may function as a platform by which to combat this spatial reconfiguration (Struppek 2002: np). The feeling of placelessness cities are increasingly said to suffer from is defined by Struppek as “caused by the spread of international architecture and brand-shops,” or in other words, sameness (np).

In line with this hijacking of public space by commercial estates, McQuire makes note of how screens in public space have mostly been used for the broadcasting of live events and as dynamic platforms for information and advertising (11). Certain screen-based projects in public space, however, demonstrate the ability to mediate new forms of public relations, prioritizing an “affective experience” over informational speed and transparency (McQuire 12-13). This can be linked back to the textual screens earlier examined in discussing McCarthy. These textual screens were thought to require minimal cognitive and emotional investments and I propose were related to the flow of public space.

Examining the *Public Space Broadcasting project* in the UK, Scott McQuire, Nikos Papstergiadis and Sean Cubitt find “It [the project] recognizes the potential for large screen technologies to play a key role in urban regeneration by providing a new dimension of public space and civic agency” (1). The feeling of placelessness is, as interpreted, seen as symptomatic of urban degeneration that relates to a change in public space and civic agency. McQuire finds that exploring this promise of screens for new forms of public relations can challenge the dominant role of spectacle and surveillance in public space (2005: 13). In effect, he proposes a stimulation of communication and sociability towards, what I call, social cohesion.

The Urban Screens project demonstrates, in a similar vein to De Souza e Silva’s conceptualization of hybrid space, that communication and sociability is a means by which the feeling of placelessness is overcome. It is the ability of digital technologies to enhance social cohesion. In the following chapter I will reflect back on the Urban Screens project and its affective experience to evaluate the role of agency and the reflexive nature of digital on physical space.

In light of De Souza e Silva, other than the formulation granted by the Urban Screens project, I find that estrangement is the combined efforts of the

substantiation of increasing commercialization that has hijacked public space in addition to the strict division of digital space from physical space. I argue that the establishment of the dichotomy has contributed to the interpretation that these digital spaces have led to the “annihilation of space and time,” “no sense of place,” “mode of de-territorialization,” “displacement” and “estrangement” in communities (McLuhan 1964; Meyrowitz 1986; Gottdeiner 2004; Sassen 2006). Inherent to these descriptions is the binary opposition that prescribes that an engagement with digital spaces implies a turning away from physical space. This technological evaluation focuses on the construction of a digital space, remote from physical space. Digital devices are thereby thought to negatively affect the experience of places in this fashion.

De Souza e Silva develops her argument for hybrid space by discussing the Marxist insight of Henri Lefebvre who argues that space is a social construction (22). I find that when De Souza e Silva sets social interaction as one of the key components of hybrid space, she is demanding a forced doubling of a social spatial construction. The first mode of social spatial construction is invisible. It is the public flow. The sociability presented by De Souza e Silva is eminent of interaction facilitated by digital technologies. The former is the social construction that defines the public flow I examine within the existing commercial infrastructure of digital technologies. I find that social interaction on top of this natural social structure has no autonomous logic, other than being in itself a form of enactment. In other words, the social cohesion is symptomatic of the enactment of agency. The agency granted by digital technologies affects the course of action within physical space.

The second link to the Urban Screens concerns itself with the corporeal mobility that is inherent to public space. In the previous chapter I have discussed the public flow of public spaces and the traveler navigating the dense city digiscape. The existing commercial infrastructure of screens either compete for eyeballs, bringing the engager to a momentary pause, or implement the itinerary and navigation of place by means of the instructions for use. The public address of the screens that constitute the existing infrastructure is profoundly other than the public aimed for in the research program. It responds, or regulates, the public flow. The former public is homogenized as well as in motion.

The Urban Screens project, with its large and fixed screens, needs its audience to exclude themselves from the existing public flow in order to substantiate social cohesion. In particular the large Urban Screens with public address require an

immobile audience. This is because the audience communicates through the interface, which brings us to the mobility/immobility paradox pointed out in reference to Friedberg. Despite that Urban Screens project often mandate the immobility of the engager, I find, the process of hybridization of digital/physical space can still be accomplished. This because the prerequisite of mobility suggested by De Souza e Silva is in fact merely symptomatic of agency. The cultural/social content that replaces the commercial content of the existing screens grant agency.⁶

The Continuous Connection to Digital Space

Having discussed mobility in relation to the Urban Screens project I now relate it to the mode of mobility De Souza e Silva's uses for her definition of hybrid space. Herein the digital mobile device and its capacity to provide continuous connection to digital space collapses the boundary that divides digital and physical space. Pertaining the relation digital to physical space, De Souza e Silva states that mobile devices are in fact "carrying of digital space" (17). For instance, waiting in line you can access your mailbox and chat to friends online via your cellular phone. You close yourself off from the stimuli of your direct physical surroundings and define the here and now by the mediated elsewhere and elsewhere. Further on, I argue that digital space and physical space are interrelated through agency. Therefore the engagement with a digital space does not imply an escape, or estrangement, from physical space.

To De Souza e Silva a continuous connection to the Internet, provided by services such as I-mode, establishes hybrid space. The era of hybrid space, from this perspective, is still an ideal because as Manovich rightfully points out, "in practice, dataspace are almost never continuous: surveillance cameras look at some spaces but not at others, wireless signals are stronger in some areas and non-existent in others, and so on. The contrast between the continuity of cellspace in theory and its discontinuity in practice should not be dismissed" (2005 np). Anyone who has wondered around a café repositioning themselves in pursuit of a wireless Internet connection or having waved their cellular phone in the air trying to capture a signal will confirm this.

⁶ As a result of the site-specificity of screens, and in light of the mobility/immobility paradox, I am skeptical of curating the existing commercial infrastructure of screens with cultural/social content. Whilst public space is in fact a place of transit and thereby mobile, and the effect of agency so explicit, particularly in relation to locative media, I find that Urban Screens and instructions for use provide a means by which to envision a hybridity of space without a mobile device.

In relation to the paradox of immobility/mobility by Friedberg, mobile devices break free from the necessitated immobility of the user especially, as I will examine later in relation to Verhoeff and what she calls “screens of navigation.” In comparison to the desktop computer, De Souza e Silva notes that the digital mobile device offers a different experience of place. This is because the use of the digital mobile device is on the move, as opposed to a stationary desktop user and, additionally, the mobile user. Additionally, whilst the computer user is subjected to solitude, the mobile user, operating in public space, is in the presence of others (De Souza e Silva 17). The necessity of the user to remain immobile fractures a temporal narrative, partitioning spatial experiences. The navigation or viewing of the moving digital space, after all, requires corporeal immobility within physical space. With digital mobile devices there is certain fluidity in the transition that eradicates the traditional experience of spatial compartmenting.

The Role of Agency

The definition of De Souza e Silva of hybrid space places emphasis on the inter-mediating role of the digital device in social relations and mobility. In light of De Souza e Silva, communication and sociability is seen to erode the division between digital and physical space. It provides a means by which digital technologies are not conceived of as fuelling estrangement, which would come from immersing oneself in digital space, but rather enhancing relationships within physical space.

As I conceive of it agency is a more valuable consideration of the synergy between digital and physical space. I find that De Souza e Silva and the Urban Screens project both demonstrate the symbiotic relation of the two intermediated by digital technologies and their capacity to grant agency. It is the interaction of the digital with the physical that begs that they are not treated as disparate. I expand on agency as fundamental key to the collapse of the binary opposition within my discussion of the media engager. My proposal is that other than the collapse of digital and physical space solely made possible by communication and social interaction with a digital mobile device, enacting agency as a result of engaging with digital technologies is sufficient for spatial synergy to occur. This is not to say that communication and social interaction are not themselves the enactment of agency, because, in fact, they are.

Synergized Space

Presently, I argue that mobility and sociability are not in themselves that which creates hybrid space. Rather, I propose agency collapses the digital and physical space dichotomy. I find that the agency acquired by digital technologies, and through the enactment of it, digital spaces synergize with physical spaces. Having evaluated hybrid space I conclude that the focus on mobility and sociability by De Souza e Silva needs to be directed to the engagement with digital technologies. Her overemphasis on the social uses of digital technologies are lacking the focus on aspects of technology that, I find, remain significant.

It is through engaging with digital technologies, be it digital screens or non-screenic digital technologies, that agency can be acquired. Enactment is the carrying out of agency. It is the only real mandate to digital and physical synergy. Within dialectic space, where virtual space and physical space are relatively disparate, enactment fuses them into a single spatial experience.

The Media Engager

As a result of the convergence and remediation of technologies, the cramming of functionality into a single device, the contemporary subject is best understood as media engager. The need for the concept media engager as term is established when looking at the differentiation Verhoeff (2008b) makes between the theoretical object and the theoretical console. The *consoleness* concerns the "variety of practices performed through that thing" (Verhoeff 2008b np). The array of these practices prescribed by a singular "thing" (material objects) demands a term that incorporates the continuously shifting and conflation of various types of engagements. People are no longer just a spectator or gamer. They have not one role or relation to a given medium, but rather various roles. The multitude of practices needs to be considered and other than defining its user in relation to a single practice, the term media engager can be used.

Media technologies offer endless functionality of both a visual and haptic order. It is no longer simply a question of a technology performing a single function and thereby demanding a single practice. Rather these gadgets, with their (screen-based) interfaces, new modes of interactivity (multi-touch screen) and connectivity (WiFi, WLAN etc.) prescribe multiple practices. These multiple practices exist in a recursive dialogue to one another. The result of this is that the interface is no longer

looked through, a window, but transforms to an opaque surface that one looks at (Cooley 153). Within the relation human to object, the engager is the site of realization. The division between digital and physical space erodes, becomes more difficult and even irrelevant to maintain, in such an instance.

The media engager enacts dialectic space by means of engagement. It is the outcome of digiscaping in public space. Earlier I referred to how passing through public space one encounters a digiscape of technologies and that the engager oscillates between these and may select to engage with one of the digital technologies. Within the process of oscillation the status of the space is dialectic. The digital and physical spaces are not united.

However, once the engager “engages” with the digital technology and enacts the agency acquired as a result, these two previously disparate spaces fuse to form a single experience. Again, the relation I see between dialectic space and synergized space is best understood in respect to how Michel de Certeau conceptualizes the distinction place and space: “space is practiced place” (1988: 116). The enactment of dialectic space collapses the digital/physical space dichotomy in the experience of place. Hereby synergized space is practiced dialectic space.

The engager, shifting across single and conflated practices, provides the meeting point for the digital and physical space. The engager is hereby the locus of the bleeding-over of digital and physical space that constitutes the experience of place. The shifting and conflation of practices is the theoretical consoleness of digital technologies. It is the active and diverse engagements between on-screen space and off-screen space, or in the case of non-screenic media the data and physical space, the site of the media engager and the mediating role of the engager as user/viewer/gamer. It underscores that within the understanding of the media engager, an active dialogue takes place between the time/space of the digital and that of the physical. In relation to agency I also discuss, what I propose is, a re-embodiment turn. It is effective of the fact that the subject is no longer seen as positioned in disparate spaces, but rather has a single experience of place constituted by the synergy between the digital and physical space.

The Re-embodiment Turn

The discourse on screenic media has long been dominated by metaphors that to describe the “immersive” effects of the medium. Concepts such as the “virtual gaze” (Friedberg 1995) and “armchair traveler” (Huhtamo 1995), all underscore the idea of a Cartesian subject with a mind/body dualism. Engaging with these media would

cause the re-embodiment of the viewer. The idea of disembodiment primarily arose as a result of the belief that cyberspace, and other forms of virtual space, was entirely separate from physical space. This continues to fuel an idea of estrangement from place as a result of technologies. The late nineties, however, saw a shift in the interest of virtual spaces to digitally filled physical spaces in the twenty-first century (Manovich 1). It demonstrated a greater concern with materiality. During this period in time it can be stated that a re-embodiment turn took place. We see this in part as well with the establishment of locative media. It contributed to the realization that there is a reflexive relation between digital and physical space.

On the website of the cultural institution Virtueel Platform, Bart Groen writes that in 2002 Karlis Kalnins coined the term locative media for a series of new media workshops. These workshops focused on technologies that reflected on location in physical space. The integration of GPS into numerous devices established these, what Groen calls, "location aware devices" that enhanced the awareness of the users' position in physical space (np, my translation). This reflexive relationship between digital and physical space blurred the boundaries that separated the spaces and saw the user of these technologies as embodied as a result of this. I will zoom in on agency and the interrelationship between digital and physical space.

Mobile Screenic Devices' (MSD's) can complement and extend the workings between the two paradigms, digital/physical space and public/private sphere, through a course of reflexivity. The digital representation can reflect on the position of the engager and instruct his/her passage through space. The mode of mobility in screens of navigation is even doubled: the engager navigates the screenspace of the digital technology and, in synchrony, moves through physical space. However, when the symbiotic relation of the digital and physical is absent, the engager remains immobile to play games, view films or engage in other screen-based activities. Particularly, GPS devices can synergize the mobility on the screen, the navigation, and the mobility of the engager by means of a reflexive practice.

To Verhoeff (2008c) navigating screens of navigation creates screenspace, the site where space is displayed as well as constructed (np). In the case of such a navigation device the on-screen space is reflexive of the off-screen mobility and vice versa. The on-screen visual displays a path, based on inputs of departure and destination related to the physical location, and determines how we best navigate physical space. In this example the play of agency is very clear, as the causality between digital and visual space is directly related. The on-screen space is the

representation of the off-screen space. Equally, in light of De Souza e Silva, navigation devices do not challenge mobility as component of a hybrid space.

Concerning the use of the cellular phone, Rowan Wilken (2005) observes a transition in the conceptualization of place from *stabilitas loci*, place as fixed and stable, to *mobilitas loci*, the experience of multiple places through mobility. He finds, "Thus rather than "liberate" us from place, as Wellman would have us believe, these technologies arguably refocus the individual on the fluctuating and fleeting experiences of place/s and their impact on the fabric of everyday life" (Wilken 9). Herein lays a symbiotic relation between the digital and the physical. I find the citation a superb analysis that extends beyond the mere technology of it all. Wilken has selected to prioritize the social handling of technology over the technological aspects itself. The observation comprises a neat theoretical circle when reflecting on what Wilken writes earlier in his essay, "It [the experience of place] is heavily mediated engagement, where place is experienced via a complex filtering of imbrication of the actual with the virtual" (5). The imbrication of the actual, the physical, with the virtual, the digital, is what creates dialectic space. The process of filtering is the enactment and so, in effect, the synergized space is best understood as experience of place.

Another instance of physical location being underscored by digital technologies is traveling in Europe with a cellular phone at hand. When crossing country borders you receive short-text messages from the operator that hosts your cellular connection within the country. The borders of countries are invisible to the naked eye, but when one receives such a message, these borders materialize in the awareness of the location in physical space.

As mentioned in the first chapter earlier, the non-place is highly structured and the flow of goods and people through the space is regulated, in part, by instructions for use. At a train station the information displays, continuously updated, inform travelers as to the anticipated time, of departure or arrival, and a place, the platform. It hereby instructs navigation through physical space. In this instance agency is the coming into contact with relevant information. By means of the acquired knowledge, meaningful action in the physical world is taken. Here the digital is not a visual abstraction of physical space, a map, but information reflecting on physical space.

Returning to the Urban Screens project in which the screen functions as social interface, the interesting aspect of these types of screens is the way in which social

interfaces are in their action equally reflexive of, and hereby bound to, physical relations. For example, changing onscreen content has a result in physical space. Hereby the experience of place is that of dialectic space.

With screens of navigation a direct correlation exists between off and onscreen space and the instructions for use organizing the corporeal mobility of contemporary spaces, in other (screenic) digital technologies the relation is less explicit. Furthermore, mobility is a primary characteristic of public spaces today.⁷

An important thing to note is that the re-embodiment turn is prescribed in the collapse of the dichotomy. When the digital and physical are no longer disparate spaces, the divide between mind and body is not possible. In enacting agency, the experience of place, for the engager, is the amalgamation of digital and physical and therefore, per definition, embodied.

The Symbiotic Space by Non-human Agents

The configurations of space (dialectic space and synergized space) have focused solely on human agents. Equally the argument for hybrid space discussed by De Souza e Silva has centered on a human agent. To my mind, it is possible to extend the idea of a human media engager to appreciate non-human agents enacting agency. As a result effective of this shift to non-human agents, the spatial configuration changes from dialectic space to *symbiotic space*.

I briefly discuss non-human agents in reference to The Internet of Things. This merely to point at the profoundness and scale the synergy of digital and physical space is facing. In 2005 Tunisia hosted a conference organized by the International Telecommunications Union that focused on the technological revolution they called The Internet of Things. This technological revolution relies on the ability to identify items, track changes in the physical and reducing the size of those objects and materials that are able to communicate (ITU 2). The Internet of Things “connects the world’s object in both a sensory and intelligent manner” (ITU 2). The Internet of Things herein designates a future wherein inanimate objects become the engagers adhering to a norm of agency and in their enactment of it, binding digital and physical space.

⁷ Regardless, entertainment media in places of immobility, which conform to the twin paradox set out by Friedberg, equally demonstrates a relation to agency. Aylish Wood who has developed an approach of how viewers experience the interface based on agency. She builds her ideas concerning digital encounters on the appreciation of the interface as composed of competing elements. See: Wood, Aylish. *Digital Encounters*. London: Routledge, 2007.

As an illustration of what the Internet of Things would entail, they provide an intriguing scenario where a girl Rosa, living in 2020, jumps into the car on the run from her boyfriend. The experience is an ongoing encounter with various technologies, predominantly RFID driven that sense, connect and interact. They alert her to dangers like the fact that her tires need to be checked at a nearby garage and execute more practical tasks such as paying for a soda from a machine.

This symbiotic relation between the digital and physical is further broken down in the discussion that follows on Bruce Sterling (2005). His prophetic work provides a glimpse into a future wherein the dominant configuration of space is symbiotic space. Herein the entire differentiation between digital and physical becomes obsolete as objects and subjects alike persistently enact agency.

In the prophecy of Sterling a shift to a network of interacting human and non-human objects occurs, however, in his reasoning the effective need of this type of relationship is the only means to a sustainable society. He finds the objects of contemporary society to be a strain on the environment. The basis of his prediction is about how we use our natural resources and the historical changing relations between human and object as a result of changing technocultures. He assesses the evolving human to object relations classifying objects as the Artifact, Machine, Product and Gizmo. Each new order overlaps with the previous orders. He predicts that the Spime will replace the order of the Gizmo. Following the epoch of the object as Gizmo, which started in 1989, will be that of the Spime (Sterling 11). Sterling finds that the digital, by means of the object as Spime, will play a key role in preventing the ecological downfall of the physical world.

With the Spime the digital functions as the "savior" of the physical world, hence the term symbiotic space. As a Wrangler of the Spime you find yourself weighing the cognitive load and opportunity cost of your engagement to the object and negotiation your stake (Sterling 22). This since "In the end of its lifespan the Spime is deactivated, removed from your presence by specialists, entirely disassembled, and folded back into the manufacturing stream" (Sterling 77). The object is thereby optimally efficient and its existence is guaranteed only by its ability to execute a given function or service. Information assembled about the product expands the duration of its use. It guarantees that the material object is not simply thrown-out as soon as it malfunctions, but that it receives proper reparations and that it is injected back into the production line at the end of its run.

The neologism Spime is a portmanteau, indicating that this object is traceable in space and time. The Spime is explored in the text as the everyday material object. However, it is said to exist virtually until you give the command for its production. From that stage onwards the Spime, as object, is constantly traceable in space and time. Its status as object is constantly monitored and as Wrangler you are informed of any reparations or update the needs of the object. The digital is thereby "melded" into the fabric of the physical.

The Spime demonstrates an object for which the digital constitutes its core fabric. At this stage the digital is an inherent component of the physical world. They have completely fused to a single compound. If reflected on in relation to the media engager concept, it would be the reflexive quality of the digital operating at a micro level within the fibers of the physical reality. At this intensity of existence, the experience of place, the material reality of the world, is continually a synergized space. Or, better yet, best understood as a symbiotic space. It is a configuration of space that unifies the digital and physical through human and non-human agents.

Conclusion

Prior to digital technologies our experience of place was solely that of a physical space. With the absorption of digital technologies into day-to-day activities, they have permeated public spaces and changed the experience of place. This essay has concerned itself with three possible configurations of space as a result of digital technologies entering the domain of public space, presented in order of the intensity of enacted agency: dialectic space, synergized space and symbiotic space. These configurations have been made apparent in particular by research concepts on mobile media (De Souza e Silva's hybrid space) and media convergence (Verhoeff's theoretical console).

In the first part of this essay, I examined dialectic space of public space. I offered the analysis of a dialectic space that is typified by, and contingent with, the tension between the digital and the material. After conceptualizing the materialization of public spaces in relation to the site-specificity of TV screen, it was seen that contemporary spaces are primarily spaces of mobility. Of this, the public flow is characteristic.

This understanding was met with more intricacy when placed within the context of the twin paradox by Friedberg. Herein I examined how digital technologies have formulated a ludic relation to physical space. They play with the boundaries extended beyond digital and physical space to include shifts in personal and private spheres. Left alone, this situation, as I have conceived of it, is best understood as a dialectic space in which the media engager is prone to digiscaping. This digiscaping entailed selecting between competing spaces and spheres consequent of the relation between digital technologies and physical space.

Following, I examined hybrid space and identified agency as the synergizing factor in the relation media engager, digital technology and physical space. The idea of a synergized space was set against the background of the work of Adriana de Souza e Silva on hybrid space. I subjected the concept offered by De Souza e Silva to critical evaluation. I proposed that her analysis of digital mobile technologies restrictive and have sought to extend the scope of the hybrid space, of which the concept synergized space is effective. To accomplish this I looked at the relation between digital technologies and space. Traditionally, digital technologies, in their capacity to construct digital spaces, permit an estrangement from physical space. Herein the binary opposition is underscored. The Urban Screens project equally

examined communication and sociability to battle the contemporary epidemic of placelessness.

The dialectic space is, however, not the way in which contemporary space is experienced in relation to mediated digital technologies, because it is the result of a media engagement. Public spaces can therefore be conceived of as dialectic space. Concerning present-day digital technologies, and the multitude of practices they demand in order to exercise their functionalities, we assume the role of media engagers. The acquired agency by an engagement with digital technologies fuses the digital and the physical as experience. Without digital technologies present within physical space, the configuration of space is physical space per default.

Furthermore, I pointed to a reflexive relation between digital and physical space, in which agency plays a role. GPS as a technology reminds us of our location in physical space, but equally as the research conducted by Wilken suggested, in the social use of the device do we use it to reflect on physical locations. In regard to the screenic interfaces often seen as windows to another world, the relation is implicit, but equally here I have found that agency is invoked and acted on.

The media engager, appreciative of the consoleness of contemporary devices, enacts agency acquired by digital technologies to experience a synergized space. However, as noted, agency is not restricted to non-human agents. The Internet of Things predicts a future with an intricate network of objects and humans enacting agency. Hereby synergized space is more paramount. Sterling prophesies a future in which the virtual space is a core quality of material objects. Herein a symbiotic space would surface.

My aim has been to theorize and reflect on the tripartite relation between an engager, digital technology and space. I have proposed three conceptual configurations of space observing the role of agency and the intensity as well as form of this agency. The recognition of agency as a binding factor has been the result of the interrogation of De Souza e Silva's hybrid space and the Urban Screens research project. Whereas the concept of hybrid space suggests that communication and sociability in addition to mobility are what provide a seamless overflow of the dichotomous spaces, it has been argued that agency initiates such an effect. Within synergized space the dichotomy digital and physical space collapses, a consequence of enacting the dialectic space that comprises contemporary public space. In conclusion, when the intricacy of the relation between digital and physical space is

revealed through agency, the digital and physical are more enmeshed than earlier envisioned.

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