



**AALBORG UNIVERSITET**

# Agency in Hybrid Public Space

How mixed Reality Performance appears as an Agency in  
Hybrid Public Space

Handed in to

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# Declaration of Authorship

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# PART 1. INTRODUCTION

## 1.1 Defining Public Sphere

The essence of the public space has been widely considered as an open social space in which private individuals interact and exchange information and ideas that are relevant to society. This includes city halls, public squares, markets, cafés and what the ancient Greeks called Agoras. These spaces, as central platforms for social interaction, constitute a crucial aspect for creating and maintaining an active and informed public domain in a democratic society. However, the question of the public space has long been discussed in various scientific disciplines, as technology, in particular, mobile networks continues to invade into public realm as the discussion becomes more and more complex and involved. This discourse generates a variety of differentiated ways to "see" and understand social space.

The English term public sphere refers to a German translation of *Öffentlichkeit*. The term is most often associated with two interrelated iterations: the public - a collective of speakers and listeners in public space - and the publicness - the state of the public and public control. The notion of the public sphere has been examined in both political and cultural studies. The term initially comes from the German philosopher Jürgen Habermas who defined the "public sphere made up of private people gathered together as public and articulating the needs of society" (Habermas, 1991, p. 177).

Jürgen Habermas' *Structural transformation of the public sphere* has evolved into an influential scope for the researcher of the public sphere. In this volume, he advanced his well-known argument about the demise of the public sphere. Habermas states that the public sphere as an area of social life in which public opinion can be formed, the public sphere should be open to all citizens and free from influences by governments or private

companies, he argues that a portion of the public sphere is created in every conversation in which private individuals come together to build a community but contrary to that, as Habermas criticizes the model of the 20<sup>th</sup> century society, they do not act either as business or professional people engaged in their private affairs, or as legal advisers who are subject to the legal regulations of a state bureaucracy and are obliged to obey. Citizens act publicly when they deal with issues of common interest "without being subject to coercion". Thus, with the assurance that they can assemble and unite freely and express and publish their opinions (Habermas, 1991, p. 129).

Philosopher Hannah Arendt defines the term *public* that indicates "two closely interrelated but not altogether identical phenomena"(Arendt, 1959, p. 50). The public is everything that evolves in public, can be observed and perceived by everyone and has the greatest possible publicity. Appearance - anything that is seen and heard both by others and by ourselves - constitutes reality. Compared to the reality of seeing and hearing, even the most significant forces of intimate life –"the passions of the heart, the thoughts of the mind, the delights of the senses-lead an uncertain, shadowy kind of existence unless and until they are transformed, deprivatized and deindividualized, as it were, into a shape to fit them for public appearance"(Arendt, 1959, p. 50)

According to Arendt, ancient Greek life was arranged between two realms: the public realm in which *action* was undertaken, and the private realm, a family site controlled by its head. The character of the private realm was not intimacy, as it is in modern times, but biological needs. In the private realm, the heads of houses took care of the needs for food, shelter and so on. On the contrary, the public realm was a space liberated from these biological needs, a realm, in which one could identify oneself through "great words and great deeds." Property requirements for citizenship reflected the perception that, unless a person can take care of his biological needs, one can not be liberated from them and, therefore, can not engage in society as a free individual among equals. Slaves and subordinate women were

restricted to the private sphere, where they met biological needs of the head of the household. Naturally, the public realm was seen as higher status than the private one.

Since the collapse of the Roman Empire, the church assumed the role of a social realm, and the feudal lords controlled their lands and possessions as private spheres. In the modern period, there was an elevation of the third realm, the social sphere. The social sphere is related to the provision of biological needs. Arendt considers the social sphere as a threatening aspect for the private and public sectors. To meet the needs of each person, one must invade the private sphere, because this one makes biological needs as a public matter and declines the sphere of free actions: there is no longer a sphere that is free from necessity. (Arendt, 1959)

Following Habermas' and Arendt's criticism and conceptualization of the public realm, scientific reflections on the construction and function of the public urban space have been enlarged to focus on particular urban developments that can be formulated under the heading: the privatization of public space—"end of the public space" (Caldeira & Sorkin, 1994) or "the emergence of private cities"(Frug Gerald & Kritische Justiz, 1999)

The discourse on the privatization of public space encompasses various scientific and scholastic reflections and have been examined from the different point of view such as ownership of public areas, public authority, modern architectural tendencies, market politics, public policy, etc. However, the scope of the research only seeks to bring a specific shift in relation to private-public space that explores the impact of mobile technologies on establishing the new configuration of the public domain with a high level of privatization of the public realm.

A number of scientists have studied a wide range of literature on various definitions of public and private space including already mentioned Hannah Arendt-*Human conditions* (1958) and Jürgen Habermas-*Structural Transformation of the Public Sphere*(1962), Henri

Lefebvre- *the Production of Space*(1974), Lyn H. Lofland-*The World of Strangers: Order and Action in the Urban Public Space* (1973), Richard Sennett-*The Fall of the Public Man* (1993), and David Harvey-*The Right to the City*(2008).

Arendt highlighted how the public sphere needed to be spatialized and the importance of public spaces to the human condition. Public spaces in communal use, like streets or squares, are open to the general public for unrestricted use within the framework of their functions and without the necessity for special permission. Setha Low and Neil Smith made the stress on the general rules and normativity of public space: "Public space is traditionally differentiated from private space in terms of rules of access, the source and nature of control over entry to space, individual and collective behavior sanctioned in specific spaces, and rules of use."(Smith & Low, 2013, p. 16) In a similar way, Ali Madanipour defines public space as space to which generally people have unrestricted access and right to public domain (Madanipour, 2003).

Ali Madanipour claims that the shape of the city and the characteristics of urban life are influenced by the way the public and the private distinction is made and emphasizes the point of the relationship between private the public realm and "the threat of public intrusion into the private sphere are both minimized and carefully managed"(Madanipour, 2003, p. 50). By this means, Madanipour criticizes the politics that establish the boundary and interplay between private and public: "rather than being caught in a battle between communitarian and libertarian approaches, which can be stifling, a porous and highly elaborate boundary which acknowledges and protects individual and collective interests and rights is what distinguishes a sophisticated urban environment from a harsh one."(Madanipour, 2003, p. 202)

Political theorist Chantal Mouffe defines that *the public* is usually opposed to *private*, but its meaning differs according to the different contexts in which this opposition



public/private is inscribed. She distinguishes three main contexts: 1) Public – as what is common, general, as opposed to private as what is particular and individual; 2) Public – in the sense of publicity, as what is visible and manifest, as opposed to private as what is secret; 3) Public – as accessible and open, as opposed to private as closed.” However, in the emerging phenomenon of public space and the relationship between public and private appears as one of the key problematic discourse.(Mouffe, 2005)

Besides “this key problematic discourse” that redefines the traditional use of public space and its sociability in the late eighties and nineties, a new challenge, which only enhances and establishes a different mode of privatization of public space, to public space was raised by theorists who argued that the use of mobile media and the internet contributed to a privatization of public space(Ling, 2004).

The broader implication of the impact of these technological developments was that it made the withdrawal from participation in the public realm a genuine option (Lofland, 1998). The key argument was that the use of technologies such as mobile phones and social networking redefined social life that was no longer involved in public space, since it took place without face-to-face interaction, and thus moved away from origins of the public sphere, “in the context of the café, the learned society, and the salon”(Ling, 2004, p. 16). Counter-arguments such as the discussion of “networked publics,” suggest that publics are very much part of how people interact with the internet and mobile phones, but the public sphere may not only be enacted in public space(Beer, 2008). Instead, they argue, it happens across the whole range of platforms; spatial and technological. Hampton, Livio, and Sessions, in a study of Wi-Fi use in public space, make a similar point in that “exposure to a diversity of opinions and issues within the public sphere is dependent on the range of external inputs available from the mass media and everyday interactions embedded within the private parochial, and public realms (Hampton & Gupta, 2008). The growth in the public realm is instead being realized in local spaces that are characterized by “a sense of

commonality among acquaintances and neighbors who are involved in interpersonal networks that are located within communities”(Lofland, 1998, p. 10). This is seen as evidence that media use is changing the nature of public space, but still allowing the conditions for participation in the public sphere. McQuire, in this study of the effect of urban screens on public space also concludes that “new forms of public interactions which involve sharing and negotiation between individual and collective agency can play a vital role in challenging the dominance of public space by spectacular “brandsapes” or it’s pacification by surveillance”(Mcquire, 2015). The implications are that if the new participatory models of participatory media are made accessible within public space, then they can contribute to the public space by encouraging collective action and encounters between strangers.

## 1.2 Hybrid public space

Information and communications technologies (ICTs) are basic dimensions of the 21st-century city, and the transformation of the public space is primarily associated with media technologies and cell phones that significantly has changed the social framework of the common space and global interface of public space. Public space has added a new layer of so-called hybrid public space that redefines the nature of public space.

Scott McQuire, the Professor of Media and Communications and one of the founders of the research for public culture defines the public domain of the 21st century as hybrid space construction where space itself is “no longer defined simply by material structures such as

streets and plazas. However it is not solely defined by the virtual space of electronic media but rather the public domain now emerges in the complex interaction of material and immaterial spaces”(Mcquire, 2015). Publicity is increasingly being introduced in all these places at the same time and in this sense has become highly "hybrid" in nature: a complex of concrete and virtual qualities, static and mobile areas, public and private spheres, global and local(Mcquire, 2015).

Howard Rheingold argues that “there is a close link between informal conversations as they take place in communities and the ability of large social groups to govern without monarchs or dictators”(Rheingold, 2000). He also argued that virtual spaces created by the Internet and related information and communication technologies have emerged as a leading to a new kind of digital public sphere. Some scholars have conceived this alternately as a virtual public or networked public(Mislove et al., 2011), while others have similarly described what they call a networked society or networked public(Manuel Castells, 2009a)

Substantially, these new virtual spaces can be used in the same way as traditional, offline spaces, i.e. as "free space"(Norris, 2002), to discuss ideas of public importance as the public is a combination of "every conversation in which private individuals come together to form a public"(Habermas, 1991), the digital public also includes all forms of new media, such as chat rooms, website comments, and social media, in which private individuals engage the space as the public. Virtual spaces can also overlap or interact with offline spaces to form "hybrid networks"(Lim, 2012).

Once again, in the last 20 years, the communication revolution has significantly influenced the way a society deals with the world. A new paradigm today is to redraw reality as a complex system of relationships between physical and virtual layers- a mixture of reality and virtual presence. Hybrid space refers to the condition of urban space where the use of

mobile communication technologies merge the borders between physical and digital space and create a hybrid space. Hybrid space is not constructed by technology, it is built by the connection of mobility and communication and materialized by social networks(De Souza E Silva, 2006).

In these accounts, the mobile device is described as an interface due to its connective properties, including those that situate users within a network of information that enables connections to both people and places. “The mobile digital interface figures significantly in these accounts as that which affects and defines the perceptions of the space people inhabit, as well as the nature of their interactions” (De Souza E Silva, 2006, p. 2016).

Following to that, Adriana de Souza e Silva in the article *Space and Culture* defines a new type of hybrid space not from the structural point of view but rather than focusing on the essence of hybrid space as a tool to reshape the space in which the interaction actively takes place. The hybrid space created by combining physical and digital spaces in social settings created by mobile devices and a crossover of social practices coexisting in digital and physical space creates the concept of hybrid reality.

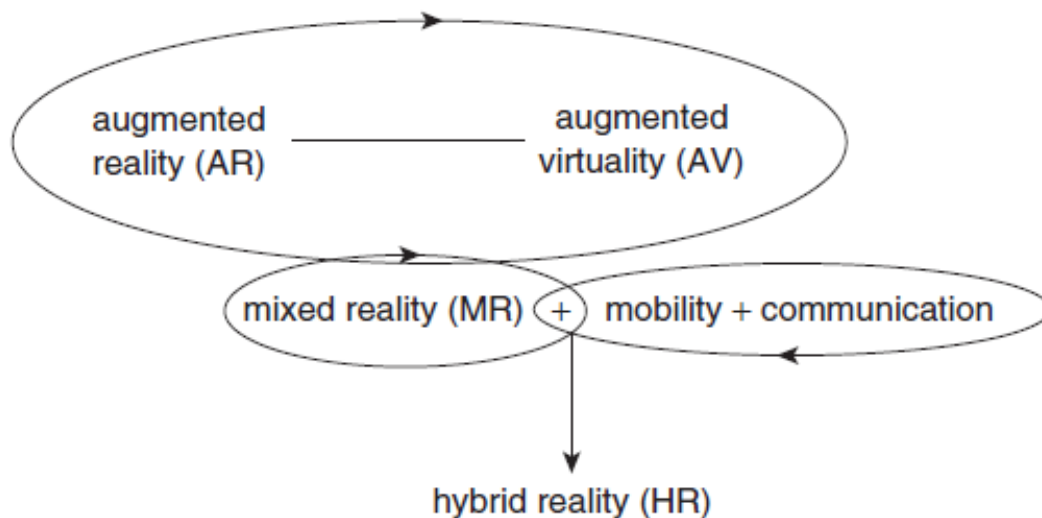


Figure 01. Definition of hybrid reality

Source: De Souza E Silva, 2004

Without the traditional distinction between physical and digital spaces, a hybrid space occurs when one no longer needs to go out of physical space to get in touch with digital environments. Therefore, the borders between digital and physical spaces, which were apparently clear with the fixed Internet, become blurred and no longer clearly distinguishable. The logic of hybrid spaces mediates this set of relationships of mobile technologies. The connections do not occur solely in physical space but rather in a new type of space that merges physical and digital. “Mobile technologies and the condition constantly connected to the internet allows us to build a particular relationship to physical and digital spaces. “Internet became mobile and when communities previously formed in cyberspace could be found in urban (hybrid) spaces”(De Souza E Silva, 2006, p. 265).

Silva, on one hand, makes a very important point in this discourse and claims that hybrid space is not generated by technology, but it is built by connection of mobility and communication and materialized by social networks and changing human’s experience with space that means not only interacting in new ways with other people but also redefining the space in which a whole society inhabits. According to Silva the first major aspect of hybrid reality is defined as a state where the two realities exist as inseparable which means that hybrid reality always relates to and interacts with physical reality.

Given the above, the initial shift of proposed research is to analyze public domain by focusing on the hybrid construction of public space based on critical analysis of the social effects of media technologies on functioning contemporary cities and the relationship between media and the public sphere and the way in which media both construct and conflict with notions of the public sphere. The chapter develops a different definition of the concept of urban public space. The aim is to create a conceptual basis for a more critical analysis of the so-called transformation of urban public space concerning the application of mobile technologies to examine how the post-modern crisis of public space has exposed and criticized changes in the boundaries of public and private space.

Considering the hybrid nature and ambivalence of modern public domain, hybridization of public space is not only technologically embodied process that merges the virtual and physical domain in one entity this is also the conceptual framework of the modern phenomenon of the public realm that needs in-depth analyses to grasp the holistic concept of transforming public space. The immense impact of mobile technologies on public domain also reframes the concept of interaction -the space in which it transpires is a leading aspect, in particular, how hybrid public space provides a platform to be enacted and which technology/medium may mediate the already technologically-driven hybrid public construction.

As Andreas Broeckmann argues that electronic media have played an important role in limiting the potential for creative and heterogeneous use of the emerging public areas. The Internet, for example, has been promising for a "liberated public" in the last decade, while at the same time creating new restrictions on the free use of the communication and exchange tools it offers, from the data monitoring infrastructure. Public production is the continuous effort to reinvent the concept of the public in relation to and with the help of contemporary social, political and technological conditions. This requires an effort to understand the current modes of public being.”(Broeckmann, 2004)

Likewise, David Rokeby and Nicholas Bourriaud argued that the practical application of digital aesthetics constitutes an experience that establishes and evokes social relationship rather than creating complete forms of artwork or mere construction of objects and images. However, according to Scott McQuire, social relationships need to be learned, nurtured and practiced and only new forms of public interaction which involve sharing and negotiation between individual and collective agency can play a vital role in challenging the dominance of public space by spectacular ”“brandscape”(Mcquire, 2006).

### 1.3 Research objectives

The question of an agency which may mediate, make a critical reflection on the hybrid nature of the public domain and establish the *social relationship*, appears here as one of the dominant aspects and research objectives. In particular, as examined above, in hybrid public domain- which is characterized with multi-layered space construction embedding virtual and physical dimension and creating binary presence where privatization of public space through the impact of mobile devices is the presiding issue- what might be the critical application of technology itself and potentially what kind of artistic practice can question hybrid public space.

To clarify agency and technology in the scope of research, mixed reality and mixed reality public performance are proposed as the entity that has potentiality to be defined as an agency in hybrid public space mainly considering the similar spatial and structural nature of mixed reality presence and hybrid public space: technically, mixed reality mediates and performs through multi-layered spatial construction, it deliberately creates a binary of presence-physical and augmented reality comes together as one entity and creates the extended ability to experience the particular space. Similar to mixed reality hybrid public space is also a fusion between physical and virtual realities, material and immaterial entities. However, the mixed reality performance is an artistic intervention and technologically extended performance that creates temporary mixed reality presence, while hybrid reality is a socially-driven permanent model of public space. While approaching agency as an instrument to mediate and question hybrid public space. This link between hybrid reality and mixed reality performance becomes the key aspect of the discussion.

## 1.4 Research methodology

The research is primarily based on the qualitative research methodology and develops three main shifts:

1. The first shift analyzes and defines public space from the sociological point of view and examine philosopher and sociologist such as Henri Lefebvre, Hannah Arendt, Jürgen Habermas, Richard Sennett, Michel de Certeau. This shift serves as a general framework for the research that leads the discussion to the shift- hybrid public space.
2. The second shift focuses on the constriction and problematic issues in hybrid public space. First, it explores the impact of the massive application of mobile technologies in the public sphere as well as the medium of hybrid public space. Second, it examines the notion of agency in hybrid public space. Hybrid public space is approached from two perspectives:
  - a. Media theories such as Scott McQuire, Manuel Castell, Eric Kluitenberg, etc
  - b. Applied data on transforming public space in terms of smartphone zombies and a growing number of segregated sidewalk in cities.
  - c. The third shift is a case study proposing the model of agency in hybrid public space mainly based on media theories.



## 1.5 Research question(s)

- a) What is a medium and problematic aspects of hybrid public space;
- b) What is the model of artistic intervention that appears as an agency in hybrid public space and mediates through the construction of hybrid reality (material and immaterial environments);
- c) How mixed reality performance appears as an agency in hybrid public space;

## Part 2. - *Close-up* to hybrid public space

### 2.1 What is the phenomenon of the 21<sup>st</sup>-century public space?

While the introductory chapter was intended to provide the basis for the research by focusing on the theoretical structure and analysis of social and media theories in the context of *transforming public space* and hybrid construction of public space, the following chapter illustrates the functioning model of the contemporary public domain highly mediated by mobile technologies and exemplifies several emerging social phenomena such as smartphone zombies, head-down-tribes, phone phubbers as a means to establish more practical and applied sense of hybrid public domain. Below given a variety of examples and analyzed data seeks to emphasize the seriousness of problematic aspects of the emerging and evolving mode of public space and stress the point that anticipation of public space in terms of the negative impact of the mobile device is not only a philosophically framed tale or sophisticated conceptual observation.

The examples demonstrate a real-world close up to the hybrid public space which involves every individual, mediates through a high level of isolation and privatization and once again alerts the question what is the phenomenon of the 21<sup>st</sup>-century public space where whole society lives, acts and make use of it.

American science-fiction author Ray Bradbury was one of the first who described the phenomenon of being a social zombie, detached from the outer world and wholly plugged-in the personal in his dystopian novel *Fahrenheit 451* published in 1953. In the same year the author himself commented on his predictive science fiction stories in an article the day

after tomorrow: why science fiction where he profoundly grasps the idea of the physical manifestation of his book in a real-world, he claims:

“I thought I was writing a story of prediction, describing a world that might evolve in four or five decades. But only a month ago, in Beverly Hills one night, a husband and wife passed me, walking their dog. I stood staring after them, absolutely stunned. The woman held in one hand a small cigarette-package-sized radio, its antenna quivering. From this sprang tiny copper wires which ended in a dainty cone plugged into her right ear. There she was, oblivious to man and dog, listening to far winds and whispers and soap-opera cries, sleepwalking, helped up and down curbs by a husband who might just as well not have been there. This was not science fiction. This was a new fact in our changing society”.(Bradbury Ray, 1953)

The approach that the author applies for this quote simply describes the cumulative processes of transforming civil life. The 65-year-old novel has become a prescient warning about the increasingly growing and habit-forming impact of networked technologies and embedded virtual domain in the public sphere in modern eras. The advances and pervasiveness of cellular technologies, wireless computer network, multimedia messaging service have been invading into the public domain and radically reconstructs not only the way a society inhabits in public sphere but also the entire nature of the 21<sup>st</sup>-century public sphere.

Following the notion of a social zombie today there is an official new word to describe the phenomenon- Szombie is a portmanteau, a made-up word from the words: smartphone and zombie. This word has been used to refer to a particular type of pedestrians who are completely immersed in their smartphones and inattentive to the environment while passing through the streets. In a broader context, the word essentially exposes the phenomenon of smartphone overreliance and, the most considerable, the way of

technologically embodied behavior in public space that is directly related to the significant social transformation of the contemporary public sphere. An increasing number of zombies has also created the need for new types of sidewalks for safety reasons since the traffic accidents associated with the use of smartphones have been multiplying around the world.



Figure 2. A shopping mall in Xi'an, China and designated pathway for Szombies

Source: The New York Times

<https://www.nytimes.com/2018/06/08/world/asia/china-pedestrians-smartphones-path.html>

In September 2014, Chongqing, China, introduced a separate sidewalk intended to those smartphone users who keep texting and operating their device as they walk. The white spray paint separates a mobile zone from the rest of the pavement designed to protect zombies from traffic incidents.

Besides zombies' sidewalks in China, the social settings of the smartphone obsession and deeply rooted smartphone culture have developed a different and own version of zombie in the Cantonese language: *dai tau yuk* /head-down tribe. The ongoing phenomenon and the ramifications of the head-down tribe became widely reported and discoursed when In February 2015, the Hong-Kong-based neurosurgeon Dr. Harold Cheng Kin claimed that daily-based durable stay in a position of tilted head in need of using smartphone while walking caused increased hospitalizations from excessive pressure on cervical vertebrae and the number of cases reported by the Health Department was rising.<sup>1</sup>

In 2016, a study<sup>2</sup> of 14,000 smartphone users across six European capitals, conducted by German accident research group, states that Stockholm residents are the most tech-addicted society among the European cities who are putting themselves and others in the greatest traffic danger by using smartphones in the process of crossing the street.

To reflect on this prevailing issue, Swedish artists Jacob Sempler and Emil Tiisman designed fake road signs<sup>3</sup> warning smartphone zombie to stop use smartphones while walking and

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<sup>1</sup> Reports South China Morning Post / Monday, 02 March, 2015

[www.scmp.com/lifestyle/technology/article/1725001/smartphone-zombies-are-putting-your-life-and-theirs-danger?page=all](http://www.scmp.com/lifestyle/technology/article/1725001/smartphone-zombies-are-putting-your-life-and-theirs-danger?page=all)

<sup>2</sup> Survey by DEKRA Accident Research in six European capitals: Amsterdam, Berlin, Brussels, Paris, Rome and Stockholm / officially published on the following website: [www.dekra-na.com](http://www.dekra-na.com)

<sup>3</sup>The [odd triangular signs](#), which depict a man and a woman with heads bowed as they stare at their phones, initially caused a stir in the Swedish capital when they first appeared around the city in November. Since then, news of the signs have gradually spread around the world on social media / telegraph news by [Chris Graham](#)

crossing the street intersections. The Swedish edition of the website *The Local* made a report regarding the new popping-up traffic signs on the Stockholm street and interviewed the one of the creators on the project Jacob Sempler where he tells the backstory and inspiration for the idea and considers himself as part of the so-called szombie society: "I am dependent on social media myself. And one day on my way to work I was almost run over because I was staring at my phone like a sick person."<sup>4</sup>

February 2016, the Dutch town of Bodegraven in the western Netherlands announced a new initiative against smartphone-related accidents and installed the first pavement-level traffic-light in Europe to guide smartphone zombies safely across. The pavement-level traffic-lights appear on the streets in forms of strips of LEDs connected to the actual traffic lights and fixed at the pavement edge. The device changes color corresponding to traffic signals-green for go, red for stop. Kees Oskam, a member of the Bodegraven council, told the Dutch press: *People are increasingly distracted by the smartphone. The attraction of social media, games, WhatsApp, and music is great and comes at the expense of attention to traffic. As a government, we cannot easily reverse this trend, but we can anticipate it.*<sup>5</sup>

In the same year after multiple tram accidents caused by smart zombies' 'distracted walking,' the municipalities of German cities Augsburg, Bodegraven, and Cologne decided to design and embed traffic lights at ground level in the pavement to give a sign to preoccupied szombis.

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<sup>4</sup> Article-Road signs warn pedestrians not to use smartphones by Chris Graham, February 04, 2016  
[www.telegraph.co.uk](http://www.telegraph.co.uk)

<sup>5</sup> [www.euronews.com](http://www.euronews.com) / Floor lighting at pedestrian road crossing could prevent phone 'zombies' wandering into traffic by Luke Barber / 16/02/2017  
[www.euronews.com/2017/02/16/floor-lighting-at-pedestrian-road-crossing-could-prevent-phone-zombies](http://www.euronews.com/2017/02/16/floor-lighting-at-pedestrian-road-crossing-could-prevent-phone-zombies)

*A municipality of Augsburg has braced itself for this new public peril. After several zombies caused accidents by carelessly crossing tram tracks, city officials decided to install new traffic lights – at ground level<sup>6</sup> – states The Guardian journalist after visiting Augsburg.*



Figure 3. Pavement-level traffic-lights to prevent social media-addicted pedestrians absentmindedly wandering into the road.

Source: the website Euronews

[www.euronews.com/2017/02/16/floor-lighting-at-pedestrian-road-crossing-could-prevent-phone-zombies](http://www.euronews.com/2017/02/16/floor-lighting-at-pedestrian-road-crossing-could-prevent-phone-zombies)

Apart from a growing number of specially designed sidewalks and traffic lights for safety purposes for those who remain themselves glued on the phones while moving in public

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<sup>6</sup>An article *the German traffic light for smartphone zombies* published on the Guardian website by Janek Schmidt  
[www.theguardian.com/cities/2016/apr/29/always-practise-safe-text-the-german-traffic-light-for-smartphone-zombies](http://www.theguardian.com/cities/2016/apr/29/always-practise-safe-text-the-german-traffic-light-for-smartphone-zombies)

space, there has emerged another case responding to the safety problem of blindly walking zombies, in particular, innovations in-car technologies to detect zombies, prevent car accidents and decrease the number of injured pedestrians in vehicle crash as a result of simultaneous walking and texting in public space.

The giant automaker company Ford Motor created Pre-Collision Assist with Pedestrian Detection for the 2017 Ford Fusion model with a name *one step ahead of pedestrians*. The technology incorporates a set of radar and camera to detect the roadway ahead of the vehicle for collision risks. If a risk is detected, the vehicle will provide a visual and audio warning to the driver, along with muting the driver's audio system. If there is no reaction from the driver to any of these warnings, the technology will apply the vehicle's full braking power to reduce the severity of, and potentially eliminate a frontal collision.<sup>7</sup>

Back to the new words, a list of cities that have implemented specially designed traffic lights or sidewalks preventing incidents and inconveniences associated with smartphones in public space goes on and on, but there is a noteworthy case of a new generated word that provides a further transition to a discussion about the transformation of public space and reflects a trend towards emerging forms of public space.

The word „Phubbing“, short for phone snubbing is a term coined to describe the unequivocally 21st-century phenomenon of ignoring the person in front of you in favor of your phone. To put it in other words, it means to interact with a mobile phone in preference to people in a social setting.

In 2012, Australian ad agency McCann Melbourne initiated the campaign „stop phubbing“ that has reached more than 500 million people and sparked global discussion around mobile

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<sup>7</sup> One Step Ahead of Pedestrians / Ford's Pre-Collision Assist helps predict distracted “petextrians” movement. [corporate.ford.com/innovation/petextrian.html](http://corporate.ford.com/innovation/petextrian.html)



phone etiquette. Yet, before the campaign, the company commenced the process to generate a new word- neologism to explain the behavior of the phone snubbing and invited a number of lexicographers, authors, and poets to submit their versions. As a result, the word "phubbing" had created and widely popularized over the social media (In 2016, phubbing was accepted into the Oxford English Dictionary). As part of the campaign McCann has launched a website that demonstrates a very considerable content covering: voting against phubbing, an imaginary social attitudes of what the world could be if the phubbing behavior continued to invade in and engage public domain or social relationships, as well as a statistics and the top list of words greatest phubbing offenders.

- Phubbing is rife throughout the world. Just imagine couples of the future sitting in silence. Relationships based on status updates. The ability to talk or communicate face-to-face completely eradicated.
  - Vote against phubbing if you prefer a real smile or if you are too busy living life rather than making a status update.
  - If phubbing were a plague, it would decimate 6 Chinas.
  - An average restaurant will see 36 cases of phubbing per dinner session this is equal to spending 570 days alone while in the company of others.
  - 974 people claim their food tasted worse while being a victim of phubbing.
  - Some phubbers are not even aware of the devastating effect their behavior has on others; they need to be told.
- The top list of the world's greatest phubbing offenders looks following:



Figure 04: world's greatest phubber offenders according to McCann Melbourne, published on the website of [www.stopphubbing.com](http://www.stopphubbing.com)

In a sense, a society always needs to find new words to explain emerging, technologically-driven social behaviors. Broadly speaking, tomorrow a society may need to find a word to describe, a person, wearing Virtual Reality (VR) or Augmented Reality (AR) headsets and haptic gloves connected to cellphones, utterly immersed in a synthetic extension of a physical environment while walking through a cityscape. In this way, there would be no need to bow your head in order to check a phone screen, update a status and have a chat with others as optical or see-through head-mounted display (HMD) and heads-up-display (HUD) technologies have been undergoing extensive development that has the capability of superimposing the virtual image on the real world scene and allow the users to see the virtual image of the digital information and real-world scene simultaneously. These technologies are becoming more and more widely accessible and implemented in many fields. Then another new word will be needed to refer to one's ignorance of the surrounding company in preference of more advanced mobile devices integrated with sophisticated VR

and AR plugins and applications, but pursuing in-depth research regarding the recent and future advances in mobile technology and network is not a particular research objective here but rather a supplementary stress in the context / in exploring the modern transforming public domain where transformation is primarily undertaken through the massive impact of mobile technologies and networks.

As already discussed above, the investigation of new words, emerging forms of sidewalks and traffic lights applied for and implemented in public space were given here to illustrate the functioning mode and model of the public domain. The data explores the nature of remade public space in a more specific way. Therefore, the all above information represents the nature of the public domain, and two main vital aspects: multilayered public space that mediates through a particular medium that contributes the isolated and privatized public being, as Raymond Williams formulates the term mobile privatization: “private and deliberately self-enclosed individuals, while at the same time there is a quite unprecedented mobility”(Williams, 2003, p. 129)

## 2.2 Medium in hybrid public space in McLuhan’s sense

*The medium is message*, claimed Marshall McLuhan in his pioneering study *Understanding Media: The Extensions of Man* published in the mid 1960s -a time when technology was undergoing a dramatic evolution but the ultimate shift from the technological revolution (second industrial revolution) to the digital revolution was still in its infancy and penetrations of ubiquitous computing and mobile operating systems into public domain could be only a presumption for the years ahead. Coining this phrase, McLuhan explores what is the interplay between the media itself and the content that the media transmits into a society. He clarifies, in a further discourse that a medium has an impact on society not

only by the content and characteristics embedded in the medium but also by the message that medium conveys by means of its “mere presence”(McLuhan, 1964). According to McLuhan’s analysis during the mechanical age human beings had extended their bodies in space, in electric technology central nervous system itself, “abolishing both space and time”(McLuhan, 1964), whereas the last state in which society is rapidly developing is a human continuation of the process of technological modeling of consciousness when the creative process of knowledge expands collectively and together with all human existence. He defined the light bulb as an explicit illustration of the idea “the medium is the message” a light bulb as a medium without any content that creates an environment by its mere presence”(McLuhan, 1964) Despite the fact that light bulb does not have any direct content as a newspaper has articles and a television has programs, the light bulb appears as a medium and agency, considering how a simple bulb can empower a society to illuminate the environment during nighttime and transform the natural conditions. Given the above, understanding of the medium in McLuhan’s is "any extension of ourselves. (McLuhan, 1964)" Exemplarily, a hammer or a wheel that extends human’s arm or legs and feet. This extension allows people to do more than they could on their own physicality. McLuhan postulates that society is often preoccupied with the content of a medium. He suggests, "it is only too typical that the "content" of any medium blinds us to the character of the medium" (McLuhan, 1964, p. 9)

Once again, "the medium is the message" suggests that taking notice of changes in our social or cultural conditions means having a new message that is influencing the new environment. With this early warning, the new medium brings effects that could undermine society or culture, “control over change would seem to consist of moving not with it but ahead of it. Anticipation gives the power to deflect and control force.”(McLuhan, 1964, p. 221)

To have another point, it seems useful for the discussion to review Raynold Williams debates on the McLuhans philosophy, in particular, Williams defined the state so-called Mobile privatization that can be understood as the attachment between an individual and a mobile device that will lead to a feeling of being at home while connected to that particular device in mobile settings.

People can travel to any place while still feeling comfortable on account of the connectivity to their mobile device. The connectivity establishes a sense of intimacy that results in the individual's identity being tied to their mobile network. This concept suggests that the idea of "home" does not have to be a domestic structure with walls and roof, but that the mobile feeling of connection offers a portable community similar to a domestic environment.

The term was first coined in by Raymond Williams in his book *Television: Technology and culture* (1974). Williams described the essential contradiction in modern society as that between mobility and domestic living. He believed that television could negotiate this contradiction by giving users privacy to see the world.

Williams criticized Marshall McLuhan's approach to technology and society. He defended his visions against technological determinism, centering on how society has a prevalence towards technology when it comes to the development of human processes. In his words, the determination is a real social process, but never a fully controllable, entirely predictable set of causes. On the contrary, the reality of determination is to set limits and exert pressure within which variable social practices are immensely involved but never necessarily controlled (Williams, 2003, p. 133).

a) To conclude the chapter, in McLuhan's sense the medium is extension and message what medium carries doesn't come only from the practical application and capability of the medium itself rather than it creates the broad conceptual framework for understanding the new phenomenon of social order. McLuhan's approach to the medium and the concept of

the dominant mediating medium leads the discussion to the point that understanding medium, which is defined here as mobile technologies that reshapes public space, is a crucial aspect to evoke public engagement and make an in-depth analysis to establishing an interface for public engagement in so elusive and multi-layered public space and pose a question: what are the politics of public production, in particular, what is the way in which the order of modern public space can be challenged and explored by the creative use of space which leads to the main research question as well: what is the model of artistic intervention that appears as an agency in hybrid public space and mediates through the construction of hybrid reality (material and immaterial environments);

## Part 3. - Agency in Hybrid public space

### 3.1 Isolation and privatization of public space

The emergence of mobile devices and massive media consumption that is increasingly occurring in the public domain “confused the line between private and public”(Mcquire, 2006). Urban sociologist Richard Sennett in his classical study, *The Fall of Public Man*(1974) problematizes the public space as more private domain sphere of public life and experience. Sennett investigates a new construction of public space where the visibility and transparency of public are heightened, and attachments with the public life are withdrawn from city life which he formulates as “the paradox of isolation in visibility”(Richard, 2017). By bringing the point *isolation in visibility* Sennett investigates how the electronic media embodies the public space and transforms the public domain. Sennett argues that the heyday of public life in the 18th century was associated with the emergence of new public spaces in which strangers could meet in social gathering venues such as theatres and parks. However, the balance between private and public behavior gradually changed in the 19th century through obviating distance previously granted by social rules and conventions. The significance of losing distance is a function of the decisive role that Sennett attaches to social role-playing in maintaining public culture amongst "strangers: "Playacting in the form of manners, conventions, and ritual gestures in which public relations are formed" (Richard, 2017).

Playacting among strangers is vital because it involves testing out boundaries, thereby moving social rules from the background of the taken-for-granted to the foreground of public consciousness. Playacting in public can, therefore, take on political connotations(Mcquire, 2006).

While playacting requires the sustenance of social distance, Sennett argues that the ability to express public opinion declined in the nineteenth century since "‘playacting’ gave way to intimacy. Sennett links the rise of intimacy to the new demands of commodity-capitalism. When depersonalization became the consequence of economic transformation, it was reactively counterpointed by heightened demand for authentic personal interaction. The co-existence of these two bodies opposed the forms of social interaction which was an essential factor in the maintenance of global public culture. Instead, they created the modern conditions under which people believed that "the community is a mutual act of self-publication." (Richard, 2017)

As a result, public expression was limited to the majority of people. In this context of public interaction between strangers, which has a potentiality to trigger political action, has been doubly dismissed: firstly by the retreat of authentic personal expression and secondly by increased confidence in charismatic leaders for deputy public expression. This indicates the actual point at which politics is becoming a media phenomenon in the modern sense.

In early 1962 year, Jürgen Habermas published the book *the structural transformation of the public space*, where he problematized as well the public domain in terms of its sociality and public engagement: he states: in the realm of the mass media publicity has changed its meaning. Originally a function of public opinion, it has become an attribute of whatever attracts public opinion: public relations and efforts recently baptized "publicity work" are aimed at producing such publicity. The public sphere itself appears a specific domain –the public domain versus the private. "(Habermas, 1991, p. 2)

Elic Kluitenberg in the essay *Public Agency in Hybrid space / In Search of Foundations for New forms of Public Engagement* suggests that the privatization of public domain through the immense impact of mobile technologies incorporated in public domain is closely tied to Sennett's and Habermas' conceptualization as mobile electronic media transfers the trend of



electronic isolation to public space itself and creates dramatically increased isolation through heightened visibility. The progression of wearable technologies, including portable media players, mobile phones, 3G and 4G wireless media, etc., is chiefly responsible. Mobile media entrench many people in a form of “electronic autism locked in singular concentration on their portable devices while they move through public space, visible and plugged-in, but entirely disconnected from the environment.” The withdrawal from public life and increasing retreat into a personal sphere is the most evident tendency of transforming public space. In other words, "conversion of public space into private space by fully transparent connectivity in terms of mobile devices"(Kluitenberg, 2016, p. 75).

Habermas and Sennett argued that the emancipatory moment of public culture was "all too brief and that the balance between private and public behavior was progressively altered during the 19th century". The new conditions of commodity capitalism and secular belief militated against the forms of social interaction, which were vital to sustaining a cosmopolitan public culture. The rise of the commodity creates a countervailing demand for personal intimacy and psychological authenticity. People came to believe that community is a mutual act of self-disclosure. (Mcquire, 2015)

Andreas Broeckmann argues that electronic media have played an important role in limiting or at least not promoting the potential for creative and heterogeneous use of emerging public areas. The Internet, for example, has been promising for a "liberated public" in the last decade, while at the same time creating new restrictions on the free use of the communication and exchange tools it offers, from the data monitoring infrastructure. Public production is the continuous effort to reinvent the concept of the public in relation to and with the help of contemporary social, political and technological conditions. This requires an effort to understand the current modes of public being(Broeckmann, 2004).

Manuel Castells, sociologist and Influential analyst in the field of the information society, communications and globalization, in his trilogy *Rise of the Network Society*, outlines that the growth of social networks associated with economic and social transfiguration in late industrial societies are intensified by the introduction and wide application of new technologies, mainly communication and information technologies. Castells posits that the network has become the presiding form in a new type of society that he identifies as the network society. He approaches the impact of the networked form as a social system in physical and social space that establishes a new kind of polarity. According to Castells, there are two fronting spatial models-“spatial logic”(M Castells, 2010), the logic of material places and locations (“space of place”) and the logic of intangible flows of information, communication, services, and capital. The particularly remarkable thing about Castells’ theory is the definite division between the above-mentioned space categories: Whereas the space embedded in places and locations are distinctly localized and linked to local history, tradition and memory Castells examines the space of flows as inherently ahistorical, location-free, timeless and continuous, where emerges a significant imbalance-“asymmetry” between these two kinds of spaces: while the majority of the world’s residents live, settle and work in the “space of places” and locations, the principal industrial political, social and conclusively cultural agencies are increasingly shifting to the place of flows, where they form possible location-free ahistorical network connections, "international trends, power complexes, and capital movements"(M Castells, 2010). However, increasingly, decisions made within such autonomous systems determine the conditions of life in those space and places where the vast majority of the world's population is trying to survive and where their knowledge, experience, and memory are localized. Castells believes that political, social and cultural bridges should be deliberately built between two spatial dynamics to avoid the collapse of society into insoluble “schizophrenia.” Castells writes: people still live in places. But because function and power in our society are organized in

the space of flows, the structural domination of its logic essentially alters the meaning and dynamic of places. Experience, by being related to places, becomes abstracted from power, and meaning is increasingly separated from knowledge. It follows structural schizophrenia between two spatial logic that threatens to break down communication channels in society. The dominant tendency is toward a horizon of a networked, ahistorical space of flows, aiming at imposing its logic over scattered, segmented places, increasingly unrelated to each other, less and less able to share cultural codes. “Unless cultural and physical bridges are deliberately built between those two forms of space, we may be heading toward life in parallel universes whose times cannot meet because they are warped into different dimensions of a social hyperspace”(M Castells, 2010, p. 45).

“If we look at space as a social form and a social practice, throughout history space has been the material support of simultaneity in social practice. That is, space defines the time frame of social relationships. This is why cities were born from the concentration of the functions of command and control, of coordination, of exchange of goods and services, of diverse and interactive social life. In fact, cities are, from their onset, communication systems, increasing the chances of communication through physical”(Manuel Castells, 2009b)

The most substantial discourse in Castells’ theory is the analyzed contrast and asymmetry between physical locations and the intangible space of flows which is misleading and ultimately even counterproductive for his political agenda: the deliberate construction of bridges between physical space and the information space. Instead of a strict separation between physical space and information space, all technological and social trends clearly illustrate that these two “spheres” are becoming more and more closely interwoven. As Eric Kluiteberg extends the discussion and poses the question: what threats to the autonomy and inviolability of the subject, the group, the community or cultural self-determination could possibly manifest themselves here and how can something be done about those threats?

placeness and continuity of Castells' ahistorical "space of flows" stand the discontinuity and multiplicity of hybrid space. (Eric Kluitenberg, 2007)

Reflection on Kluitenberg, the hybrid construction of this spatial concept refers not only to the layered nature of the physical space and the electronic communications networks but also "discontinuity of the 'connectivity' or degree of connection between the multiplicity of communication networks." Considering the above, the electronic communication space is embedded in local networks, it is also connected with local history and questions about who controls electronic space or get acquainted with electronic space is not at all easy to answer.

### 3.2 Space production and agency in hybrid public space

"Space is not a scientific object removed from ideology or politics. It has always been political and strategic. There is an ideology of space. Because space, which seems homogeneous, which appears as a whole in its objectivity, in its pure form, such as we determine it, is a social product." (Lefebvre, 1991, p. 340) Lefebvre argues that this social production of urban space is fundamental for the reproduction of society and the intention to construct a new temporary space in a city environment has abilities to change social relations if the construction itself and the idea behind it are in relation to its locality, physicality, historical and social context and to redefine them in new spatial domain. Reflecting on Lefebvre, Mary Flanagan in her book *Critical Play: Radical Game Design* draws attention to the notion of heightened sense of city space through locative games and urban waking as a reflective and critical tool and frames her viewpoint in the following

questions: How might location-based play environments be presumed to hold problematic assumptions about space and the city? In what ways are the works emerging as political artifacts? Finally, if the technology is used, what are its effects? Can industrial systems reflect the contested nature of lived reality, space, and place? (Flanagan, 2009)

To put it another way, Andreas Broeckmann emphasizes the need for activating the phenomenon of hybrid public space concerning the critical use of technology when the public space is involved in art practice and argues that The challenge of creative use of media technologies is to foster the diversity of public actors and terrain and to develop strategies for articulating the new public spheres that link physical urban spaces and the potential public sphere of electronic networks. "This public sphere will only come into being if there are complex forms of interaction, of participation and learning, that use the technical possibilities of the new networks and that allow for new and creative forms of becoming visible, becoming present, becoming active, in short, of becoming public"(Broeckmann, 2000).

Given these points, the second chapter explores how new forms of public spectating can be understand or in which way technology may mediate the constructions of hybrid public sphere and most important, what appears as an agency in hybrid realm, in other words, to what extent can technologies could be used to promote other forms of agency in relation to critical reflection on the impact of mobile technology on society with the transformed meaning of space.

"The concept of "agency" is difficult to interpret but combines action, mediation, and power to act, that means taking action in some concrete form."(Eric Kluitenberg, 2007, p. 14) Hence, to find it applied as a strategic instrument for dealing with questions about the ongoing hybridization of public and private space becomes a key component here. Hybrid space has essentially strategic importance. "New hybrid spaces must be deliberately

“designed” to create free spaces within which the subject can withdraw himself, temporarily, from spatial determination." (Eric Kluitenberg, 2007, pp. 7–8)

Action is a way of using space although there is still a difference between user space and more or less public actions in this space. Using space becomes action when it takes a strategic form of action and makes a critical reflection on the space it is occurring then it could be the agency in Lefebvre's sense. But also the practice of everyday life carry important concepts and key reflection which seems to be useful to understand fully what could be the agency(Sassen Saskia, 2007).

### 3.3 The practice of Everyday Life

In 1980 French philosopher and social scientist Michel de Certeau published the book *The Practice of Everyday Life*.

The most prominent aspect of *The Practice of Everyday Life* has emerged as Certeau's distinction between the concepts of strategy and tactics. Certeau associates "strategies" with institutions and structures of power who are the "producers," while individuals are "consumers" acting in environments defined by strategies by using "tactics."

In the influential chapter "Walking in the City," Certeau claims a statement that "the city" is formed by the strategies of governments, corporations, and other institutional bodies that produce things like maps describing the city as a unified whole. By contrast, the walker at street moves in ways that are tactical and never fully determined by the plans of the organizing bodies- taking shortcuts despite the strategic grid of the streets. Certeau's research into the domain of routine practices, or the "art of doing," such as walking, talking,

reading, living and cooking, was based on his conviction that, despite the difficult aspects of modern society, there is an element of creative resistance that was created by ordinary people. In the "Practice of Everyday Life" Certeau outlines an important critical difference between strategies and tactics in this conflict of repression and expression. According to him, the strategies are used by those who are in organizational security structures, whether small or large, such as a state or a municipality, a corporation or an owner, a scientific enterprise or a scientist. Strategies are deployed against an external entity to establish a set of relationships for official or appropriate purposes, whether they are opponents, competitors, customers, customers or simply actors. On the other hand, tactics are used by those who are subordinate. By its nature, tactics are defensive and opportunistic, used in a more limited framework and instantly captured in spaces, both physical and psychological, created and controlled by more powerful strategic relationships (Blauvelt Andrew, 2003).

"Walking in the City" is expressed by his assertion that "urban life increasingly permits the re-emergence of the element that the urbanistic project excluded" (Certeau, 1984). He argues that walking in the city has "its own rhetoric" and with limited coverage of people, like movement and recording its course of individual use of urban space, the network of these moving, intersecting works also compiles a diverse history that has neither the author nor the viewer. For De Certeau, city pedestrians create it through their walk, as an actual mass of objects that avoid any planned or regulated city scheme. A pedestrian, walking in the city, has his style, which is a kind of language that speaks about the city and participates in making its sense. When walking in a city, a pedestrian gives new meaning to places and streets that do not coincide with those that were originally assigned to them. Pedestrians, for De Certeau, create the sense of urban space by applying their imagination to it through the way they move around the city, "linking actions and steps, revealing meanings and directions, these words act in the name of empty, and are freed from their basic role" (Certeau, 1984, p. 23).

Following Certeau's and his proposed concept regarding the ways of creative interaction with a city and urban space, there can be concluded that the space production in the city comes into being when the action is manifested to liberate space and then occupy it.

“Traditionally, public art has been a more delimited sphere than the public who experiences any art, although, in part, it is precisely an attempt by artists to expand their public”(Dietz, 2007). A crucial element in all public art is the diverging degree of audience participation and agency. "Agency manifests itself in the possibilities for influencing, changing, or creating institutions and events, or acting as a proxy." Degrees of the agency are measured by the ability to have a meaningful effect in the world and in a social context, which naturally entails responsibilities. In media art, any form of agency is necessarily mediated"(Paul, 2008, pp. 165–184). The measure agency is therefore partly defined by the degree of mediation within a work of art. The agency of creator, user, and audience are the public also appears highly dependent on the extent of control over the production and distribution of a work.

In 1997 Eleanor Heartney distinguished a «third way» of public art, and differentiated this third way from representative examples of Richard Serra and Scott Burton: Although they exist at opposite ends of the public art spectrum, these two examples are united by a failure to grapple with the real complexities of the public context(Heartney, 1997). In the regard of Heartney's formulation, Mouffe also clearly states that the hybrid environment cannot be ignored as the public space is both physical and virtual(Mouffe, 2005).

What creates public art for the public sphere? The question remains how that also leads to public knowledge and how this knowledge could be defined. As Bruno Latour defines “Transparency and immediacy are bad for science as well as for politics; they would make both suffocate. What we need is to be able to bring inside the assemblies divisive issues with



their long retinue of complicated proof-giving equipment. No unmediated access to the agreement; no unmediated access to the facts of the matter” (Latour, 2005)

To conclude the chapter, examining the agency in hybrid public space and the general analyses about how the agency always refers to the social and political reflection rather than making use of technology in urban space summarizes another key aspect and formulates the heading that is also an opening point for the next chapter: what are politics for artistic intervention which can initiate the space production in Lefebvre’s sense and question the public space.

## Part 4. - How mixed reality performance appears as an agency in hybrid public space

While the primary objective of the previous chapter was to analyze and clarify the notion of an agency in hybrid public space, the following chapter suggests a model in which there is potentiality to mediate hybrid public space itself and also the problematic issues of suggested hybrid public domain. Clarifying the model, the following chapter suggests public mixed reality performance as a creative practice that engages hybridity in public space and appears as an agency. Hence mixed reality performance and its spatial structure, a set of settings or attributes and conceptual perspective are presented here as a case study. A mixed reality performance by its origin constructions acts through two presences: physical and virtual. This is the first principal aspect that leads the discussion to the potentiality of reflecting and questioning the hybrid space which is also constructed by two spatial entity physical and virtual and constitutes a multilayered domain. However, the chapter also examines specific case of mixed reality performance by the Hamburg-based performance group LIGNA and analyzes its conceptual and technical approaches to signify the model of hybrid reality and how hybrid nature of space is involved in an action, which establishes the practice of space production in Lefebvre's sense.

While the mixed reality is not the explicit concept and often confused with augmented reality or another type of realities, the detailed and linear taxonomy of realities aim here to make a ground to understanding the medium of mixed reality presence that makes an elaborate narrative to the point how mixed reality mediates and appears as an agency in hybrid public space and exemplifies the interface that establishes critical reflection on the space.

Before looking over the taxonomy and basic differences between realities, there should be pointed out that the creation of another reality, in terms of mixed reality or hybrid reality<sup>8</sup>, do not correspond to the emergence of an imaginary world that takes away the connection with the reality. What is crucial here is to define what kind of relationship exists between realities and what is the notion of the space across another reality into which the hybrid reality enters. Here appears the word cyber and its meaning as the opposite, but at the same time quite often associated with an understanding of a hybrid or mixed reality. "Cyber" is an indefinite term, and in order to avoid uncertainty regarding mixed reality, it is necessary to briefly consider the difference between them. Sometimes the word "cyber" is used as a synonym for virtual or hybrid, but even a quick look at the origins of these words can prove that there is a significant distinction.

The term cyberspace is coined by the pioneering writer of cyberpunk literature genre William Gibson in his influential book *Neuromancer* published in 1983.

William Gibson's description of cyberspace as a „consensual hallucination“ (Gibson, 1983) emphasized virtual space as a place that exists inside the mind, as well as an information space. Information has historically been regarded as an immaterial entity, disconnected from any materiality, a place for the mind that stands in opposition to physical reality and is inhabited by the physical body. The perception of cyberspace as the space for thinking and the strict separation between physical and virtual have contributed to the emergence of an entire imaginary field in science fiction.

Gibson in *Neuromancer* deliberately creates the alternative reality-cyberspace for the mind contrasting to the physical reality and constructs the visionary separation between physical and virtual environments. The separation itself creates different dimension of

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<sup>8</sup> In this chapter the word "hybrid" will be used not only associated with hybrid public space examined in the previous chapter but also as a descriptive word for mixed reality since mixed reality is a fusion of physical and virtual realities and creates also a temporary hybrid reality when hybrid public space is a permanent established phenomenon of modern public domain.

cyberspaces as an imaginary realm that goes beyond the human beings' abilities: simulation space where one can inhabit and imitate not reality but rather than create replacement of familiar reality by constructing the concept of cyberspace "as a place which can be inhabited by downloading one's mind into an information space"(de Souza e Silva, 2003, p. 210). However, the development of computer simulations and virtual reality allowed the creation of other realities that could also be imaginary that may not exist in the physical world. The possibility of living and interacting with these alternative realities has changed the traditional distinction between real and imaginary. In the information age, not only the imaginary was considered, but also those virtual spaces that could be constructed with the help of technology and shared with other people. New mobile computer technologies today create a new relationship between the real and the imaginary. When Descartes questioned the connection between the mental image and external reality, he created the psychological concept of the idea. The philosopher was interested in investigating whether the mental image corresponded to the physical world and whether there was a physical world at all.

The possibility of creating a representation of the outer world in humans' mind that could have no connection whatsoever with reality has contributed significantly to the development of the concept of cyberspace as thought space and as a place that could be separated from the physical world. Since the end of the last decade, it has become increasingly clear that physical and virtual spaces are firmly connected. Cyberspace is no longer seen as an isolated space for the mind, but as a place that mixed with the physical environment. Actually, the term cyberspace itself is outdated because it originally meant a world of information that exists outside material space.

Today the way society is connected to virtual spaces is changing from imaginary neural implants and computer screens to mobile technology devices and ubiquitous computing.

The possibility of being "always connected" and moving while connected is in contrast to the act of staring at a computer screen and emphasizing our lives in a hybrid reality. When it begins to consider virtual space as adjacent to physical space, the question arises: should it simulate the real? Is no longer important, as both realities are merged in the same environment. Where is actually the place for the experiments that create virtual spaces and creatures isolated from "real space" have been replaced by works that merge physical and digital spaces?

As it is already clarified the immateriality is the leading aspect of cyberspace, hence the disconnection from the physical body has turned the intention to create a medium shift from physical to cyber. The medium creates the concept of Avatar, and the idea of multiple identities also appears as a part of the entire cyberspace concept from the literature genre when hybrid space is always connected to the physical entity doesn't refer to any realities which are imaginary or exists only as mind space, it is always connected to the realities but translocally extended through the mobile technologies.

## 4.1 Mixed reality

Paul Milgram and Colquhoun first coined the term and concept of mixed reality in 1994 and defined as "anywhere between the extrema of the virtuality continuum." (VC), where the virtuality continuum extends from the completely real through to the completely virtual environment with augmented reality and augmented virtuality ranging between, where real environments, are shown at one end of the continuum, and virtual environments, at the opposite extremum" (Milgram, Milgram, Colquhoun, & Colquhoun, 1999, pp. 5–30).

Milgram and Colquhoun argued that the existing practice and literature on augmented reality defines it in three different ways, depending on the technology used. First, the traditional augmented reality is attained by head-mounted or head-up displays with see-through capabilities, so that the user can experience the "real" world with augmented graphical data. The second extended use of augmented reality refers to "any case in which virtual-computer graphic-objects augment any other real environment. Milgram and Colquhoun used the example of a photograph (a real image) that is augmented on computer-generated (virtual) images. Finally, they proposed the third level of Augmented Reality, which includes cases that contain a mixture of real and virtual environments. Although the first and second trends can certainly be described as augmented reality, a broader term must be defined for the third trend(Milgram et al., 1999).

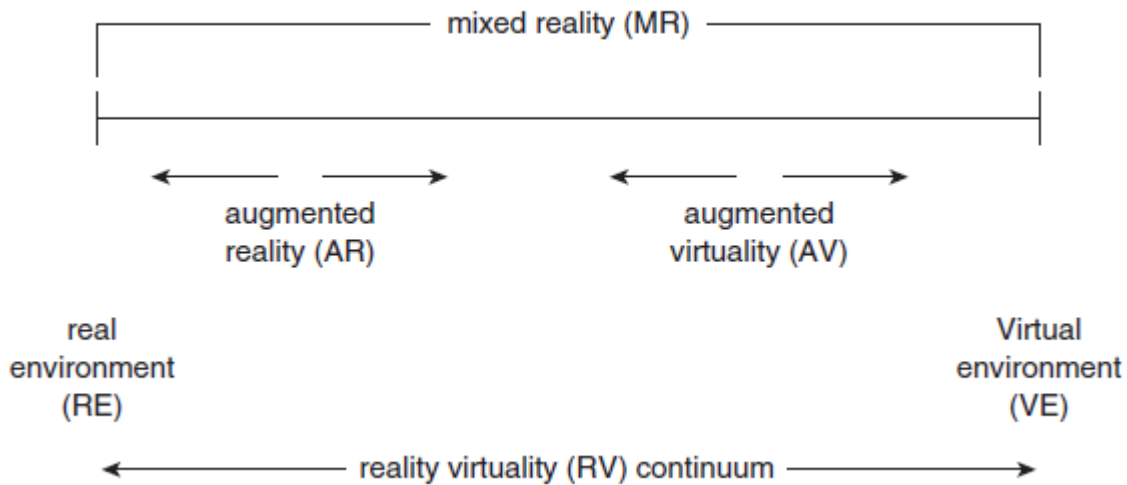


Figure 4. Definition of Mixed Reality within the context of the real- virtual Continuum  
Source: Milgram and Colquhoun (1999, p. 7)

Milgram and Colquhoun, therefore, created the concept of mixed reality to define situations in which it is not clear whether the primary environment is "real" or "virtual" or whether there is no dominance. Of "real" or "virtual" elements in the environment.

However, Milgram and Colquhoun limit their definition to graphic information; elements from the real world correspond to photographs within modeled environments, while elements from virtual realities within non-modeled environments correspond, for example, to computer-generated images superimposed on photographs. Considering concepts of mixed and extended realities only the technology used to construct digital spaces without taking social and communicative aspects into account. Although their concepts take into account connections between physical and digital elements (which they called real and virtual), they are limited to the augmentation of graphics digital information over physical reality.

Before the classification of mixed reality goes further in a broader context, it seems there is a need to approach and briefly describe the general understanding of the above-mentioned types of realities in order to outline the complex and linear picture of mixed reality.

Augmented reality (AR) is a computer-generated content, enhanced image or environment produced by an overlaid combination of real and virtual worlds that constructs a direct or indirect view of a physical, real-world environment: "merge electronic systems into the physical world instead of attempting to replace them"(Mackay, 1998). This special issue helped to launch augmented reality research, illustrating a variety of approaches that use one or more of three basic strategies:

1. Augment the user -The user wears a device, normally on the head or hands, to receive information about physical objects.
2. Augment the physical object -The physical object is modified by embedding data,

output or computational devices on or within it.

3. Augment the environment surrounding -the user and the object are not directly affected. Instead, independent devices deliver and collect information from the surroundings and display information onto objects and collect information about the user's interaction with them(Mackay, 1998).

Augmented Virtuality (AV), constitutes a subcategory of mixed reality which addresses to physicality and real-world objects into virtuality. As an in-between level, in the virtuality continuum, it refers to prevalently virtual spaces, where physical elements, physical objects or people, are progressively integrated into one another in real time. This integration process is achieved through the use of different methods. Commonly, such as video streaming from physical spaces or using 3D digitalization of physical objects or place. To put it in a most simple way, it is a manipulation of real-world and usage of information come across as a control of the virtual environment and becomes a sub-type of augmentation. Paul Milgram and Fumio Kishino comprehensively characterize mixed reality providing the fundamental interdependence between the reality-virtuality (RV) and its subcategories. The authors state that the crucial first aspect to describe the term we should define what kind of the relation mediates between VR and AR: The widely held view of a VR is a totally immersive environment in which the participant-observer fully involves in an entirely synthetic world, which possibly imitates the features of a real-world environment, which might be existing or fictional, that transcends the bounds of physical reality by creating a world in which no longer exists the physical laws governing gravity, time and material. "In contrast, a strictly real-world environment clearly must be constrained by the laws of physics. Rather than regarding the two concepts simply as antitheses, however, it is more convenient to view them as lying at opposite ends of a continuum, which we refer to as the reality-virtuality (RV) continuum" (Miligram, P. &



Kishino, F, 1994, p. 134). The authors refer to another key point of mixed reality that implies modeled and unmodeled spaces built in mixed reality taxonomy regarding Extent of World Knowledge (EWK) that defines how much “the user” know about objects and the world in which they are displayed.

Unmodeled data exists at the reality continuum produced by non-direct viewing “blindly” scanned and synthesized” but it also relates to directly perceived real objects that create a partially modeled environment. It is a certain type of information, digitally enhanced images, but doesn’t include the data which derives from the object based knowledge. In completely modeled environment that implies virtual continuum-partially modeled and modeled world-that generates the information from the perspective of virtual reality and defines the conditions necessary for displaying a totally virtual world, which can be created only when the computer has complete knowledge about each object in that world, “its location within that world, the location and viewpoint of the observer within that world and, when relevant, the viewer's attempts to change that world by manipulating objects within it”. (Miligram, P. & Kishino, F, 1994, p. 145).

Thereby the first significant aspect of mixed reality is co-existence a number of realities with an amplified feeling of borders between realities. The authors refer to another critical point of mixed reality that implies modeled and unmodeled spaces built-in mixed reality taxonomy concerning Extent of World Knowledge (EWK) that defines how much “the user” knows about objects and the world in which they are displayed. Unmodeled data exists at the reality continuum produced by non-direct viewing “blindly” scanned and synthesized” but it also relates to directly perceived real objects that create a partially modeled environment. It is a certain type of information, digitally enhanced images, but doesn’t include the data which derives from the object based knowledge. In completely modeled environment that implies virtual continuum-partially modeled and modeled world-that generates the information from the perspective of virtual reality and defines

the conditions necessary for displaying a totally virtual world, which can be created only when the computer has complete knowledge about each object in that world, “its location within that world, the location and viewpoint of the observer within that world and, when relevant, the viewer's attempts to change that world by manipulating objects within it”. (Milgram, P. & Kishino, F, 1994, p. 145) As a result, generic Mixed Reality, as its structural body, incorporates two extrema virtual realities and physical environments, in the middle of these extremes there are embedded two supplementary dimensions augmented virtuality and augmented reality. Both of these categories AV and AR operate in virtual-reality continuum enhancing their adjacent extremum and eventually this entire configuration creates anatomy of mixed reality.

Another approach to defining mixed reality was supported by Hiroshi Ishii from the Tangible Media Group at the Massachusetts Institute of Technology Media Lab. Ishii predicted that desktop computing would change in two main directions: Humans’ skin or body and the physical environment in which all lives. While the first trend is linked to the definition of Wearable Computing, the second trend is this related to ubiquitous computing. Ishii's group tried "to close the gap between cyberspace and the physical environment by making digital information (bits) tangible"(Ishii Hiroshi, 1991, p. 233). In this sense, he placed great emphasis on material interfaces, concentrating on how to the "immaterial" bits of the digital spaces in the physical world. Ishii's approach adopts Milgram and Colquhoun (1999) definition one step further by emphasizing the physicality of digital interfaces which change the perceptions of digital information and reconfigure the relationship between physical and digital spaces. Ishii also emphasized the relevance of mobility in blurring the boundaries between physical and digital spaces by combining mixed reality with portable computers(Ishii Hiroshi, 1991). However, like Milgram and Colquhoun, Ishii's definition does not include sociability and communication

As for Lev Manovich, he explained that the 1990s were about the virtual and that it is quite

possible that this decade of the 2000s will be about the physical. Manovich defined three types of applications that create an expanded space, a term he derived from augmented reality (Manovich, 2006). The first is video surveillance, which collects data from the physical environment and adds it to the digital network. The second, Cellspace, reverses this situation by sending data to mobile users in physical space who carry Global Positioning System devices and mobile phones. Similar, but in non-personalized access, computer monitors and video screens in public places can be used. The information flows, which previously mainly took place in cyberspace, can now be displayed flowing in and out of physical space, blurring the boundaries between the two. Manovich (2002) developed an exciting approach to extended spaces because his definition was not limited to technology alone, but was also inextricably linked to works of art taking place in public space, including urban spaces in the definition of extended reality. For example, Manovich described how Janet Cardiff's audio walks pre-recorded sounds overlay the cityscape while users walk in public space. However, communication and social interaction are still not part of the construction of extended space.

The fusion of mixed reality and expanded spaces creates a hybrid reality. It is precisely the mixture of social practices that take place simultaneously in digital and physical spaces, together with mobility that creates the concept of hybrid reality. (De Souza E Silva, 2006) A hybrid space is, therefore, a conceptual space created by the merging of the boundaries between physical and digital spaces because mobile technologies are used as conventional devices. Hybrid space is not constructed by technology. It is built up through the combination of mobility and communication and materialized by social networks.

## 4.2 Mixed reality performance

Gabriella Giannachi and Steve Benford in the book *performing mixed reality* define mixed reality performance as the staging of theatrical performance in mixed reality environment (Giannachi Gabriella, 2011) by using gaming, live broadcasting, radio plays, interactive interface and any other configurations that can create temporary and generated reality mediated in the body of performance.

Clarifying the concept of mixed reality performance, this is not a practice that definitely incorporates high-technology-based interface or design simulating reality and creating synthetic reality, the key aspect of mixed reality performance is to produce and add layer on real environment that is in a dialogue with and makes reflection on actual physical environment and by this means it generates mixed reality environment but not only as part of a process of computer-generated design but also as a result of creative manipulation of space in which the participants' perception is artificially changed so that the audience can see and experience both real and virtual environments. Mixed reality performance always mediates and builds the body of performance and interaction through technology, but it can be a simple radio transmitter capable of making participants have a different lens "to see" and perceive specific location and space.

Mixed reality performance often put themselves across a number of different reality states and also simultaneously networks with other realities and environments (for example merging a virtual environment with an augmented reality space). "Obviously, mixed realities form an integral part of the prehistory of media evolution. Their combining of elements of physical and virtual spaces is leading to the emergence of a new cultural technique" (Azim, Subki, & Yusof, 2018).

This also requires a redefinition of related terminologies in the context of the development of new hybrid concepts for the coherent description of mediated mixed realities. The process of hybrid space construction through creative practice also makes new methods of art production.

In such works, there are often different ways for the audience to access and participate by providing a range of simultaneously integrated mixed reality interfaces, including physical, augmented, virtual and networked approaches. This holistic approach to representation across states of reality aims to suggest that an individual can no longer claim to exist in a single state, but rather than being in a flux of realities, across a wide range of networks and different systems of engagement into which all existence is somehow integrated. First, a method was established that uses networked augmented reality for the optical real-time data transmission of embodied representations into virtual environments. These are systems of data in networked systems that relate specifically to a person's participation in the system and, above all, to personal data relating to their physical identity. The recent convergence of networked computing and art has led to an improvement of interaction as a central communicative element within the representation. The recent increase in embodied art requires a review of how it can be formulated in such systems of representation and meaning in the broader context of society. Traditional methods of physical participation in hybrid construction have carried out a distinct correlation in the field of mixed reality art and introduced a series of new and lately defined terms to understand the scope of mediated mixed reality art practice better.

Mixed realities are the new level of space that replaces or merges with the current physical world. It is the space in which the real physical objects and from the virtual world are presented as a collective and unique experience. There are several areas of reality that extend from the real to the virtual. There is "real reality," as real physical space. There is also an enhanced reality that has the properties of physical objects. Augmented Reality

provides additional information about physical structures. The conveyed reality represents the space within human perception and is modified in order to reduce the perception of reality by the user consciously. Augmented Virtuality represents the extension of the virtual environment by real objects. It is three-dimensional, registered in real time and interactive (Djukić & Aleksić, n.d.). There is a virtualized reality as a three-dimensional virtual model of real space that makes it possible to view space from any angle.

Thus, the first major point in mixed reality performance is technologically constructed hybrid space. The space that simultaneously occupies digital and physical environment and strategically operates through the general structure of mixed reality such as, enhanced realities, direct and non-direct views, modeled and unmodelled worlds. From the perspective of mixed reality performance, a theatrical event traverses across all sub-realities and creates distinct nature of hybrid space that considerably transforms human interaction method with technology and builds an interactive spatial stage between reality-virtuality. In mixed reality performance virtual and physical worlds co-exist and integrate to one another in a specific way that design and reshape the distinctive forms of human-computer-interaction (HCI) and re-creates different approach to socializing the participants' engagement into digitally and physically expanded stage.

The second important feature of mixed reality performance is audience transformation in the live mixed reality event that implies a metamorphosis from being a participant to the producer. Game designer Jane McGonigal in her book *I love bees* suggest the important consideration of mixed reality performance with the game-based approach: Computing games which are developed to colonize new objects, environments, and users in the name of ubiquitous computing games, aims to critique the disturb the social conventions of public space (McGonigal, 2008).

Reflecting on McGonigal, another key point to frame complex nature of mixed reality performances: mixed reality performances use public, urban spaces as a new platform, as a meeting point between digital and physical stage on which audience transforming into players “avatar” in order to explore a new perspective of the surrounding “world”. Hybrid multiple space, extended realities, complex structure, and public space as a new board to “gameplay.” All of this configuration encourages the performer-producer to travel along the mixed reality, explore an amount of space structure and get unique experience not only based on interaction methods to surprising advanced technologies but rather than focusing on interconnected relations to everyday objects and social space.

Hybrid space is a dominant characteristic of mixed reality performance, it becomes a crucial tool in the whole conversation and fulfills the general idea of hybrid space aiming to produce social engagement in the live event.

Gabriella Giannachi provides as well two essential features of urban mixed reality performance: an enhanced sense of locality and materiality that also heightens the context of ordinary life and to encourage the audience to perceive daily routine from both virtual or physical perspective and temporary transform the city.

To conclude, mixed reality performance, as it is capable of creating a binary of real physical and generated, is an attempt to create social space embedded in a hybrid space as a medium between physical and virtual environments: “strangers making spontaneous spectacles of themselves rewriting the social rules of given space in highly visible ways”(McGonigal, 2008).

In mixed reality performance, hybrid space that simultaneously inhabits in multiple worlds in the mixed reality continuum might be constructed by two basic spatial relationships such as adjacent and overlaid.

In terms of overlaid space, the special relationship between virtuality and reality appears to be superimposed on one another. As a participant moves through one, so they automatically move through the other. Virtual space can clearly be overlaid on real space. However, real space can also be overlaid on other real spaces, virtual space on other virtual space or on real space that immerses the user in a simulation. Adjacent hybrid space refers a is in which one space is connected to the other so that appears to be next to it, enabling a participant to look from one to another or possible move between the two.

Gabriella Giannachi describes an adjacency phenomenon in mixed reality as performativity and participatory environment in which real and physical data co-exist, but not so much as “integrated into one another but rather juxtaposed on top or next to each other” (Giannachi Gabriella, 2011).

Borina Korola, in her essay *Traversable Interfaces: Between Real and Virtual Worlds*, significantly extends the idea of adjacent hybrid space in term of traversable spatial relations between physical and virtual environments and develops the method resulting in an innovative approach in a range of human-computer-interface and different techniques for participants to be experienced in mixed reality performances. It appears a substantial matter in research trajectory directing to the adjacent structure on hybrid space.

Borina Korola establishes an idea concerning the illusion phenomenon in mixed reality performances and entertainments. The new approach of illusion viewpoint develops a strategy that gives the ability to the perceivers, presented in the merged physical and virtual worlds, physically cross the boundaries into a reality-virtuality continuum and physically arrive at immersive space with the integrated involvement in the action. “Traversable interfaces provide a mechanism for people to dynamically relocate themselves along this continuum” (Koleva, Schnädelbach, Benford, & Greenhalgh, 2000). Borina Korola clearly defines, the principal result that is conceived to implement in the use of *Traversable*



*Interfaces* is to allow participant repositioning themselves along the mixed reality boundaries according to their interest, that might be originated as an enhanced illusion of immersion in a sense to make participant to leave their physical location in order to get involved into a remote environment.

Adjacent hybrid space that tries to diverge immersive mixed environment in order to build a high level interacting structure between two spaces perceived by participant, but according Karola's trajectory, it shows that enhanced immersion might be one of the major aspects to attain this aspiration and adjacent structure of mixed reality environment, multiple boundaries might be used to join together many different physical and virtual environments into a larger mixed reality structure and create the illusion the participant is absolutely independent to traverse this complex space and choose their desirable route.

The aim of the chapter was to establish a comprehensive understanding of the taxonomy of mixed reality, overview the construction, technical settings and theoretical conceptualization of mixed reality and mixed reality performance. Mixed reality always creates a dialogue between physical and virtual realities and the connection between them enhances or makes critical reflection on physicality through virtual extensions.

## Part 5.-Case study

### 5.1 LIGNA – Radio Ballet -Opening an uncanny space<sup>9</sup>

Established in 1997, LIGNA is a collective of media theorists, radio, theatre and performance artists comprising Ole Frahm, Michael Hüners and Torsten Michaelsen. Since 2002, their work has been dedicated to creating temporary situations that engages the audience as a collective producer in the process of action. LIGNA's works are mainly constructed as a mixed reality performance that varies between radio art, public intervention, dance, and theatre. The group has been collaborating with the Free Broadcaster Combine (FSK), a Hamburg-based long-running and non-profit local radio project with a strong affinity to the political activism. LIGNA uses cheap radio technology to allow two-way participation and use radio as an extended instrument of a performance to establish mixed reality model of the action. The context and theory behind their utilization of radio is mainly defined as a catalyst for social engagement. As group members claim, it facilitates both collective and individual experiences drawing particular attention to the city (Frédérique Bergholtz, Johanna Billing, 2006, pp. 67–68).

They approach the medium of radio as a setting in which they can act, demonstrate and reflect in a non-confrontation way. The scope of their work encompasses the inquiry about the limits between public and private space and explores how radio broadcasting can intervene in the presiding politics of civic life. For LIGNA, radio is an instrument and

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<sup>9</sup> The phrase was mentioned by LIGNA in the Debate: Radio aRtivism: "Uncontrollable Situations" - exhibition of the models of the use of the radio in the frame of "No more reality" project: phase 1 / [www.kuda.org/en/radio-collective-ligna](http://www.kuda.org/en/radio-collective-ligna)

medium to set up the experimental collective action and explore the medium which is forgotten and obsolete in modern times.

The group members explain that their major intentions behind the idea of experimenting with the medium of radio could be seen both as a conceptual framework and technological instrument. LIGNA claims in the radio debates, that relating method in a simplified manner to Bertolt Brecht, the revolutionary usage of radio should turn it from a means of distribution into a method of transmission. "This follows the belief that utopian radio is some kind of "open mike" creating a space where everyone can call in any time and say what he or she wants to say"(Alahuar, 2003). Another, much simpler aspect of radio was always neglected and even abandoned in the considerations regarding independent radio: the distribution of a voice to many radios; the fact that the radio always creates an abstract constellation of listeners. This means that radio reception implies intervention in every situation in which the radio is switched on: it brings in the abstract constellation of the others. "Our regular call-in radio show tries to make this constellation audible. What we were still looking for was a way to turn this constellation into an association of people. That is a collective that can change a situation"(Alahuar, 2003).

A Series of public performances and interventions radio ballet is one of the major LIGNA's projects aiming to "explore the reception situation as a source of production"(Martin, 2011). LIGNA staged the performance for the first time in 2002. Hundreds of people gathered at Hamburg Central Station, equipped with portable radios and headphones. The mobilization of the group had been organized via several internal mailing lists, although anyone who had set their radio to the FSK frequency could participate in the performance. Participants were politely asked to perform certain gestures - for example, to sit on the platform to stretch out their hand in a begging gesture or to take off their shoes. The instructions were given through the headphones - out of the ether, so to speak. This made it possible not only

to roughly synchronize the actions of the participants but also to increasingly take possession of public space. The fact that the central theme of this work was the privatization of public space was so controversial that Deutsche Bahn initially received a court order banning the event. The central point of contention was the fact that the action, which had not yet been unintentionally announced to Deutsche Bahn in advance, was regarded as a "third event in the public area of a railway station. (Martin, 2011)" The dispute went through two instances in which the LIGNA argued that "Radioballet" - unlike an assembly - was a collective form of diversion and won the right to continue.

Figure 06. Radio Ballet at Leipzig train station. 2002

Source: <http://www.webkreativ.de/momenta/lignainterview1.htm>



About 200 people - regular listeners of the local radio station FSK, no dancers - have occupied the place with small radios and headphones. The main station is a privatized space, which means that it is under video surveillance and security control. Their task is to track down people who behave in such a way that they violate the strict rules of the space public and then throw the offenders out. The radio ballet at the main station consisted of a choreography that suggested gestures that broke the rules - like hands out, like begging for

money and sitting down - simple things. It turned out that the security apparatus was powerless in this situation. It would have been completely impossible to exclude all participants without disturbing the usual coming and going to the station. Thus the performance helped the excluded gestures to accept the nature of a nightmarish recurrence - everywhere at the same time.

In Amsterdam, LIGNA created a radio ballet that critically addresses to the iAMsterdam City branding campaign. LIGNA brought people together in the very lively Leidse Square in the heart of the city. Participants began with a careful exploration of the pavement on the square, pinpointing types of stones, diligently strolling on embedded rings in the pavement, gazing in amazement at extensive shopping displays or walking backward in the main shopping areas, some point, they were asked to move together inside one of the rings, firmly, tighter, even tighter. As a final action, They were asked to jump up and down, higher and higher and to shout: " I AM NOT-STREDAM!", -and then to disperse as quickly as possible, run in all directions at once, to dissolve into the shopping and tourist crowds... to become invisible as public again: a temporary point of disruption.

Wanda Wieczorek in his article of 2002 documented LIGNA's Radioballet for the first time and formulated the performative public action as *scattered listening* and which "links the organizing function of the radio with the strategy of subversion here. The irritation induced by scattering leads to communicative discussions, and these remain the uncontrollable variable for LIGNA, due to their unpredictability. The power of independent radio begins and ends with the listeners. This is the point where LIGNA turns the course of events over to the decisions and political actions of the participants."(Wieczorek Wanda, 2002)<sup>10</sup>

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<sup>10</sup> Online source: <http://eipcp.net/transversal/1202/wieczorek/en>



Figure 07. Radio Ballet, 2004

Source: Intermedia class Leipzig

[www.hgb-leipzig.de](http://www.hgb-leipzig.de)

## 5.2-Practice of Radio Ballet – Following LIGNA's artistic intention

### ➤ Intention

Before staging the Performance, LIGNA conducted the research of groups dealing with privatization and control of public space by attempting to cross the regime of control through exaggeration: for example, by going to the central station and acting as security forces themselves and urging people to do stupid things for their safety. What they wanted to attain was a consciousness of the repressive practices that have become part of daily life. What many of them encountered was that for many people everything they were urged to do was perfectly all right as long as it was safe for them and generally turned against those who earned it. These experiences made it clear to the group that one "can only do something against the regime of control if it is hostile to this regime. (Ole Frahm, Michael Hüners, n.d.)"

The political drive behind the radio ballet as the group describes, was to develop a collective practice that could intervene in a place that is increasingly under the control of video surveillance, security forces, police, etc, which also accommodates architectural control possibilities: "The radio ballet did not protest these practices of control in the usual way, such as organizing a demonstration to tell the public that the privatization of public space is wrong"(Ole Frahm, Michael Hüners, n.d.). Hence, the main intention and integral part of the concept was to find a way to retrieve what the regime of control fears most: the invasion of gestures of deviant behavior - holding up the hand to beg, sitting down where it is not allowed, and the like - in a crowd that replaces control. The scattering of the radio allows a mass to work together without gathering as an assembly. Instead of merely

conveying protest as content, the radio ballet tried to carry out the protest: It used the radio to let the uncanny and unexpected enter a place where usually nothing unexpected happens. Because if something unusual approaches, it will be expelled immediately.

As for the intended impact of the radio ballet, the group claims that the priority of radio ballet is not to change people's consciousness, but the space in which it is performed: "we called the radio ballet in Leipzig something like the exercise in unsuitable staying"(Ole Frahm, Michael Hüners, n.d.). Places like the central station and any other place under control have become places where you are continually practicing being under control. In these places, it has become normal not to sit where one wants because the guards will soon come and disturb the behavior that goes beyond "normality" and place regulations. "The radio ballet wants to be a counter-exercise: a way for people to learn that other practices in these places are still possible if you have the right backdrop for it"(Ole Frahm, Michael Hüners, n.d.)

The radio ballet in Leipzig consisted of three stages: The first one showed gestures that are still normal and allowed: like shaking hands with someone.

The second stage examined the "limbo" between permitted and forbidden gestures: for example, turning the hand from vertical to horizontal for begging. The third stage consisted of forbidden gestures and activities, such as smoking. Also loosening and taking off shoes or lying down are some of the activities that can quickly throw someone out of the building, at least when people show that they don't want to get up immediately. Waving is undoubtedly one of the typical and normal gestures in a place like a train station. However, it can be suspicious if you keep waving at the same person so that it looks like you are sending secret signs or clues.



## ➤ Participation

"Everyone in Leipzig told us beforehand that we should not be disappointed if less than a hundred people participated. No one believed that there would be more people than in Hamburg where 300 people came along. In the end about 500 people came. It seems that what makes this project so fun is that by listening to instructions and watching everyone else participation, an individual can feel less alone in his actions."(Ole Frahm, Michael Hüners, n.d.)

This is one of the effects The group aimed to achieve: to turn the coincidental constellation of radio listeners in a political collective, an association, that can make something, that a single person is not able to do — as he or she would get thrown out instantly.

## ➤ Political drives behind the idea of radio ballet

LIGNA summarizes the input what the radio performance evoked and states that the radio ballet showed that political intentions are possible when you subvert the rules of these places by dissemination. Today's experience of privatizing public space must be linked to the conceptual separation of public and non-public space. One recognizes that the exclusion of the production sphere from public space was a kind of precursor of what is happening in public space today: certain zones of public space are isolated from the rest and placed under private control because what happens there - the distribution and consumption of goods in private shops – “must be protected from any other use of space”(Ole Frahm, Michael Hüners, n.d.).

The only relationship possible at these locations is between seller and buyer. Other uses are prohibited. The room itself is commodified. As in production, these spaces are not considered to be occupied by the jealous selfishness of those who want to earn more money with them. Conversely, the interest of shopkeepers is generalized as the interest of all: if they sell more goods, all become richer. (Ole Frahm, Michael Hüners, n.d.)

The initial separation of the private and public spheres must be counteracted by the increasing reduction of inner cities to places of consumption. It must question the entire organization of capitalist production, not just the regulation of space.

### ➤ Artistic interventions for challenging public realm

The group claim in the radio activism debate that the notion of public space is often based on the observation that in recent years previously unregulated spaces have increasingly been controlled and regulated. It is quite evident that this development will be sustained.

'However, this observation easily leads to a mythical narrative of the decline of public spaces that were once open to everybody. What is forgotten in this narrative is the initial concept of a bourgeois public separated from private, non-public spheres, which include not only the home but also the locations of production, both of which are private property'(Ole Frahm, Michael Hüners, n.d.). Contemporary capitalism has turned this relationship around: it claims that private interests and common welfare overlap, which thus protects the private property of the means of production.

Given that, The group believes that "It is necessary to link today's experience of the privatization of public space to the conceptual separation of public and non-public"(Ole Frahm, Michael Hüners, n.d.) the exclusion of the sphere of production from the public sphere was a kind of predecessor to what is today happening to public space: specific zones of public space are isolated from the rest and put under private control, because what is

happening there—the distribution and consumption of commodities in privately owned stores—has to be protected against another usage of the space. The only relationship possible in these places is that of seller and buyer. Other usages are prohibited. Space itself is commodified.

Once again to pose the question it is not enough to list the results and reclaim public space. Opposing the ever-increasing reduction of inner cities to places reserved for consumption has to affect the initial separation of the private and the public. It has to question the whole organization of capitalist production, not only the regulation of space.

### ➤ Medium

“As a group, we are looking for ways of making a radio that works with this potential inherent in the medium. One model that we have developed in this regard is the Radio Ballet (Radio Ballet). It does not entail much more than inviting people to public radio shows”(Ole Frahm, Michael Hüners, n.d.)

This uncontrollable situation is a consequence of radio broadcasting. The radio ballet invites the listeners to transform the scattered constellation of radio reception that we have seen in Stern's description into an association. This is the association of producers. They produce the radio ballet because it is only produced in a club. It cannot appear as a product, it only happens and claims spaces in free and irreducible collective production. It is not a radio show that is produced somewhere behind the doors of a radio studio and then made public. The production process itself is public. “Doing so, it follows Bertolt Brecht, who claimed that radio, in its function as a supply medium, has to be able to transform the situation of the listener and to realize “his mobilization and redrafting as a producer. The radio ballet engages the listeners in active listening. This does not only mean that it keeps the listeners

in motion. Active listening means that the act of dispersed listening is the act of producing the work(Ole Frahm, Michael Hüners, n.d.).

It makes the appropriation of a commodity a private act. Radio ballet takes up space for an act of public appropriation. This appropriation will never be completed, as it will never take back a place. It has to happen again and again. This public production transcends the limits of the capitalist economy and its notion of private property with its enjoyment of space and movement. We have to admit that a society without commodities, without private property and without an origin, seems spooky. “However, instead of expelling these ghosts that are already haunting the capitalist economy, we should start to welcome them as guests”(Ole Frahm, Michael Hüners, n.d.)

### 5.3 Conclusion

The first crucial argument why LIGNA's performance is a model of agency that achieves the space production and mediates space itself is their approach and conceptualization of technology,

LIGNA instrumentalizes technology, in a case of radio ballet, radio is technology, and then creates the conceptual framework and questions the particular context of a particular technology or the role and agency of this technology in the process of intervention.

In radio ballet, LIGNA creates a mixed reality presence and performs from the virtual and physical spatial perspective: physical entity-highly controlled and regulated public space such as train stations, shopping, malls, parks, and temporary generated presence which is embodied into the radio transmitter in the form of audio instruction.

The participants are instructed by virtual voice to make an intervention that influences on the given public space and deliberately provokes the distraction reflecting normality of a

specific space. As LIGNA's members pointed out in the reviewed interviews and debates the most challenging aspect of their interventions is to intervene reality and manipulate the regulations that privatize public space.

In hybrid space, the challenge is actually connected to both the physical environment and others in that space, as well as to the incorporeal limits of electronic space. To paraphrase Richard Sennet's words here, this would mean engaging in a form of "civilized existence in which people feel comfortable with a variety of experiences and find food in them", in which they can actively pursue their interests in society: a space that can serve as a "center for an active life, for conflict and the play of interests, for the experience of human possibilities". In these words, Sennet speaks about the city as "the forum in which it makes sense to connect with other people without knowing them," in short: the encounter with the "unknown"(Richard, 2017).

He could hardly have imagined how his analysis would be brought into an absolute crisis by the advance of mobile electronic communication media and the takeover of public space by personal life: in which everything we can see and hear is there for us, while everyone remains essentially isolated from each other. One way to look critically - and I would suggest productively - in art projects in the field of local and portable media would be to what extent they facilitate or deny public interaction and communication and make this encounter with the unknown possible.

It is this multi-layered sensitivity that resonates simultaneously with the physical, social and technological layers of today's densely networked space. "It offers us a sensual and experimental richness much more appropriate to the social complex that "we" are forced to live in an urban context; it is under these pressing conditions of cultural, social, technological, economic, political and aesthetic hybridization that the new forms of public culture must be constituted."(Kluitenberg, 2016).

To conclude, LIGNA's art activism, interventions and public performances that explore, question, manipulate, observe, act and activate public space can be considered as an example of the artistic intention that attempts to contribute to a new socially supported public culture that not only "consumes" public sphere but also activates, manifests and poses the question who or what declines and privatizes public sphere and why it is becoming more and more private realm.

## Part 6.-Conclusion

This chapter summarizes the main findings in regard to the research question and outlines general conclusions based on the results of the studies proposed in this paper.

The board framework of the research was limited to two central narratives: problematized hybrid reality and mixed reality art practice. The integral research objective was to establish the linear discourse between them with the intention to illustrate and suggest the model of art intervention that makes critical use of technology and creates socially and politically engaged dialogues between action and space. The question about the critical reflection on public space remains unaddressed if the discourse either does not address to space itself or does not establish a clear understanding of the public domain. Therefore the phase of the research aimed to clarify, problematize and characterize public space and then stress the point why there is any need for a critical approach to public space.

This question was studied and expanded through the model of hybrid public space that has resulted in the complex picture of public realm which is divided into several shifts and sub-results:

- Defined model of public space-hybrid nature of the public domain.
- Understanding of hybridity which has resulted in two major aspects-privatization and isolation of public domain, by this means the question of what is the phenomenon of modern public space reached more specific boundaries and raised the importance for the next phase which was an observation on the medium of hybrid public space.

The medium that generates hybrid public space and makes the negative impact on it was primarily analyzed from the perspective of an emerging social phenomenon, that resulted in the clear illustration of hybrid public space that mediates through a high level of isolation and privatization-the investigation of the specific emerging phenomenon such as smartphone zombies clarified all these problematic aspects of hybrid public space which was theoretically proposed.

The critical framework and anticipated context of hybrid public space make the point of the agency in hybrid public space relevant and contextual for the discussion. Exploration of hybrid construction which refers to the co-existence (generated by mobile technologies) of physical and networked space in public domain was major finding for the next research shift: a model for the agency in hybrid public space.

Hybrid public space embeds physical and virtual space. This Hybrid nature of public space challenges the art intervention to a greater extent. The intervention as the research proposed, has no ability for space production if it doesn't address first space itself and then context or statement behind it, therefore mixed reality performance was examined here as an agency that can mediate hybrid reality mainly based on the fact that mixed reality or mixed reality performance itself is constructed through co-presence of material and immaterial realities, by its inherent technical attributes it appears as a closer setting for hybrid reality experience.

Analyses the settings and instruments of mixed reality and reviewing the terminologies, definitions and principal differences between realities resulted in the complex understanding of mixed reality construction and potentiality of these settings that significantly contributed to the closing finding based on the case study. The case study of the group LIGNA and the public performance Radio Ballet have illustrated the model of



agency and define these politics that can encourage people to experience space and question this space.

LIGNA, as it was described above, studies and then engages the public space in a way that it always questions, changes and criticizes the notion of space itself.

In Radio Ballet, LIGNA augments the public space, creates the mixed reality presence by using radio technologies and charges this technology not only as technical settings but also as a conceptual framework that questions the medium itself, the relationship of medium and the space evokes dynamic dialogue between participants and the public domain where the perform occurs, and establishes experience with the space. The case study summarized the discussion about the agency in hybrid reality and mapped out the model of agency in the context of both space construction and hybrid reality.

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