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Place! Steal! Design!
The Use of Game in the Urban Design Practices

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Tallinn 2021

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Abstract

Games and participatory approaches separately started to infuse architecture in the 1960s. Even though they started to infuse separately, they had a similar agenda: involvement of the users in the designed space and empowering them towards the decision making. For the last decade, games and gamified applications are often described as being a unique medium to create user engagement regarding designing and planning the urban realm while improving public participation. As games and gamified applications gain popularity both in academy and practice, it is worth understanding how games and play started to play a role in participatory practices for urban design. Games and play became an important motivator and fun tool not only of the methods for design practices but also to promote senses of ownership, community, and belonging, which all may contribute to enchanting urban life. This research aims to unfold the potential of games as an answer to the critiques of participation. Games may provide a unique and playful medium where can be used as an alternative tool for participatory approaches. Games' simple language and mechanics may allow jargon-free communication between various participants in addition to where simple, playful tools allow different expressions of opinions. Games create an environment for learning, interacting, and creating while making the processes easier to attend. However, the study also sees games as a complex tool that is highly dependent on the design of the game. Games can be a manipulative tool; they can be used for filling the agenda while directing participants towards a predetermined decision. The entertaining and simplified mechanics of games may cause overlooking the real urban issues, or even games can be just inefficient designs that are not playable. During this research, a game project called *Place! Steal! Design!* created. The game project aims to create a playful and engaging activity for the participants where they can unlock difficult conversations based on the knowledge created during this research. For this study, the game will work as a test field for better understanding and contesting the potential of the games.

Resüme

Place! Steal! Design! Mängude kasutamine linnaplaneerimispraktikas

Mängud ning osaluspõhised lähenemisviisid hakkasid arhitektuuri imbuma 1960. aastatel. Kuigi liiguti eraldi, oli eesmärk sarnane – kaasata kasutajad ruumiloomesse ning anda neile otsuste tegemisel rohkem võimalusi. Viimasel aastakümnel on mängu ja mängustatud rakendusi sageli kirjeldatud kui unikaalset meetodit, millega kaasata kasutajaid linnaruumi kujundamise ja planeerimise protsessi ning ühtlasi parendada üldsuse osalust. Kuivõrd mängud ja mängustatud rakendused on võitnud populaarsust nii akadeemias kui praktikas, on oluline mõista, kuidas mängud ja mängulisus mõjutavad linnaplaneerimise kaasavaid praktikaid. Mängust on saanud oluline motivaator ja lõbus vahend mitte ainult planeerimismeetodite valguses, vaid see toetab ka omandi-, kogukonna- ja ühtekuuluvustunnet, mis kõik aitavad linnaelu parendada. Antud uurimuse eesmärk on käsitleda mängude potentsiaali kui vastust osaluse kriitikale. Mäng võib olla unikaalne ja mänguline vahend, mida kasutada alternatiivina osaluspõhisele lähenemisele. Mängude lihtne keelekasutus ja talitus võimaldavad žargoonivaba suhtlust erinevate osalejate vahel ning lihtsad mängulised vahendid ühtlasi ka erinevate arvamuste avaldamist. Mängud loovad keskkonna, kus õppida, suhelda ja luua ning samas hõlbustada ka protsessides osalemist. Ühtlasi käsitletakse uurimuses mängu ka kui keerukat vahendit, mis sõltub suuresti mängu ülesehitusest. Mängud võivad olla ka manipulatiivsed, neid saab rakendada konkreetse eesmärgi teenistusse ning suunata osalejad eelnevalt kindlaks määratud otsuste poole. Mängude meelelahutuslikud ja lihtsustatud omadused võivad tähelepanu linna tegelikest probleemidest kõrvale juhtida või siis on mängud lihtsalt ebaefektiivset konstruktsioonid, mida polegi võimalik mängida. Uurimuse käigus loodi mänguprojekt nimega Place! Steal! Design!. Projekti eesmärk on luua osalejatele mänguline ja kaasav tegevus, mille käigus avada vestlusi käesoleva uurimuse käigus loodud teadmiste põhjal. Mäng on katseväli, mille abil mängude potentsiaali paremini mõista ja ka proovile panna.

1. Introduction

As a relatively young field, gamification became a matter of hype rapidly, not only for industries but also for academics. Games and play started to be infused in most aspects of life while designers and researchers started to unfold games' potential regarding their engagement and motivational aspects. Furthermore, games are described as an important tool for participatory design methods in addition to promote senses of ownership, community, and belonging, which all may contribute to improving urban life (Tan 2014; Sanchez 2015; Ampatzidou et al. 2018; Thibault 2019b). The study aims to understand play and games' usage from several perspectives and examine them within the participatory urban design context. In order to understand the relation of games to participatory approaches, the study looks at the usage of games in different fields and forms while reviewing the relevant published literature.

For many years, play and games seem like a waste of time for everyday life (Lefebvre 1991). Play/games had been commonly associated with childhood while it seemed as unproductive and pastime activity (Raessens 2012). However, today we see a different picture in view of the highly influential writings of Johan Huizinga and Roger Caillois in addition to the historical shift of values and tools provided by technological developments (Huizinga 1980; Caillois 2001; Deterding 2015). Many scholars have seen play as not just an unimportant pastime anymore but as a fundamental part of life (Zimmerman and Tekinbaş 2006). Hence, for the beginning of this study, it is important to understand "what is game, play, gamification, and serious games." The study looks at many definitions of games and tries to unfold the underlying reason for using games in other fields. Games are a unique medium that people spend their valuable time with concentrated attention without expecting any serious outcome (Bogost 2015). Therefore, how games have been used for catalysing interest, creativity, or tools for governance in non-game contexts would illustrate different usage and effects of games. At the end of the first chapter, the study explains how different applications of play activities in non-game contexts may impact users differently.

Today, the potential of games and play activities are integrated and applied by architects and urban planners. Games and gamified applications are often described as being a unique medium to create user engagement regarding designing and planning the urban realm while improving public participation (Ampatzidou et al. 2018). In addition, games and play are considered as an essential motivator and fun tool not only for the different methods used in design practice but also to

promote senses of ownership, community, and belonging, which all may contribute to improving urban life (Thibault 2019c; Tan 2019; Stevens 2007; Ampatzidou et al. 2018). Hence, the second chapter starts with explaining how play and participatory approaches separately started to infuse architecture in the 1960s. Even though they started to infuse separately, they had a similar agenda: involvement of the users in the designed space and empowering them towards the decision making. During this time, play and games were mainly visible in the writings of Henri Lefebvre, Situationist International, and utopian projects of Constant Nieuwenhuys, Yona Friedman (Lefebvre 1991; Situationist International 1959; Wigley 1998). However, while play and games still try to find their way in spatial practices, participatory methods become an established tool in architecture and planning practices (Sanoff 2000). Even though participatory methods were a highly praised idea for architecture and planning at the beginning, the more it started to infuse in practice, the more it became criticized regarding their power dynamics, conflict management, language, expertise, and engagement. As a result of these criticisms, with the new technological developments, participatory approaches witness a wide transformation (Sanoff 2000). Designers and researchers have actively developed new concepts regarding participation such as co-creation, co-design, open-source urbanism, DIY, gamicipation, collaborative design (E. B.-N. Sanders and Jan Stappers 2017; Harder, Burford, and Hoover 2013). Within this transformation, games and play are also applied to participatory approaches. Therefore, to position the end project on the vast landscape of participatory design approaches, the study uses formulations of Liz Sanders's design research map and Harder Et al. participation framework (L. Sanders 2008; Harder, Burford, and Hoover 2013). For this part of the study, the aim is to show how games can align with participatory approaches' needs.

In order to explore the potential benefits of games for participatory urban design, the third chapter of this thesis focuses on the prototype game project that is created in parallel with writing the study itself. The game aims to create a playful and engaging activity for the users where they can unlock difficult conversations and collaborate with the assumptions, desires, and ideas of inhabitants regarding their surroundings. The game mechanics conducted based on the research to make the participation process lighter, playful and open-ended. For this study, the game will be a test field to understand better the game's potential and mechanics regarding the participation process and how it can contest to be a medium of small-scale urban design projects for inhabitants. The

outcome of the game will not be the finalized design decision, but it aims to be work as a basis for the design concept of decided open space. The game aims to be a medium of expression for the users regarding their neighborhood. For this study, the game will be the test arena to understand better the discussions regarding effects and critiques of game and participation.

2. Research Questions and Relevance

This study tries to answer the question of "how games can be used as a participatory tool for urban design?". Cities are always shaped in a complex relationship with the economic, social, environmental, and political systems of the era. Even though each inhabitant has their own opinions regarding their surroundings, as the systems become more complex, the role of the inhabitants in shaping the city introduces an important question for architecture and planning of those cities and their "systems". The complexity of the cities and spatial practices make the urban realm intangible for inhabitants; these spaces are still essential scenes where people live and are affected by. Therefore this study wants to unfold and understand the search of architects and planners regarding empowering people to engage in urban-related situations, mainly within the participatory approaches. Hence, the study adopts games as a potential tool for participatory approaches. Games can be used as a tool by architects, designers, or planners to create positive repercussions on usage, creativity, motivation, education, participation, or appropriation. Alternatively, games can also be the platform where users are allowed to create their own designs in a liberated manner. People spend so much time and attention while playing games without expecting any outcome that directly influences their everyday lives. Therefore it is important to understand how game and play are used for catalyzing interest, creativity, or tools for governance in non-game contexts. Are games and play can be an efficacious tool for participatory urban design? How can they be a unique medium that can simply create representations of reality while holding the urban realm's complex parameters? How play and games can be a tool for communication, collaboration, knowledge creation, or even just appropriating the urban realm? During this research, the study employed two methods: engaging in a multidisciplinary theoretical dialogue between gamification and participatory urban design and conducting the research through the design, which in this case, is an experimental game created during the research. Transforming urban-related projects into an engaging and gameful experience can be beneficial to form a bridge between different stakeholders while increasing the end-users'

involvement and role. Even though play seems to be an escape from everyday life, for this study, it is essential to see the play and games as becoming one of the fundamental aspects of everyday life.

3. From Homo-Economicus to Homo-Ludens

Since the sixties' mass civil rights movements in America and Europe, architectural design values have drastically changed. During this time, the modernist architecture movement received wide criticism due to its focus on productivity, function, and capital while ignoring the actual users (Tan 2014). Lefebvre criticizes this movement as “the space of blank sheets of paper, drawing-boards, plans, sections, elevations, scale models, geometrical projections, and the like” (Lefebvre 1991). It was impossible to see beyond the physical and static structures of the space for this narrow-viewed scope of modern architecture. In a famous essay, Joan Huizinga insists on how humans, far from functionalist beings, construct their culture around play and playfulness (Huizinga 1980). He calls them *homo ludens* because play is what makes them human. Modernist architecture, however, leaves no room for the homo ludens: it is entirely dedicated to building the environment of the homo economicus - and therefore ends up neglecting many of the needs of actual human beings. There was no room for homo-ludens but homo-economicus. Inability to respond to the speed, change, complexities of the urban realm cause the idea of relinquishing professional designers from control over decision-making and creating new methods towards the users' involvement in shaping their space (Vardouli 2013). During this journey, participatory design methods slowly infused into architecture while users were becoming dynamic subjects of the space. Politicians, architects, and planners started to look with acceleration for increasing users' involvement regarding the decision-making process. However, even though the values moved towards users, traditional participatory practices were strongly criticized regarding their rhetoric, conflict management, time, testing, expertise, and especially user engagement (Albrecht 1988; Tan 2014; Ampatzidou et al. 2018; Vardouli 2013). "It appears as if the participatory design has not been able to create an environment which is better than one created through conventional design approaches" (Albrecht 1988). Therefore, with the past high expectations towards participation, more and more people perceive it as unnecessary and rarely able to resolve conflicts or influence designs (Ampatzidou et al. 2018). Hence, one crucial question elaborated by Lefebvre seems to be unchanged; "one of the most disturbing problems still remains: the extraordinary passivity of the people most directly involved, those who are affected by projects, influenced by strategies. Why this silence of the part of 'users'?" (Lefebvre 2003). Can games play a role in activating the users? For the last decade, game studies have started to influence urban studies in a promising way. Games and play became an important motivator and fun tool not only of the participatory design

methods but also to promote senses of ownership, community, and belonging, which all may contribute to improving urban life (Thibault 2019c). After all, games are where people spend so much time with concentrated attention while they were easily disengaged from other media (Bogost 2015). Are games and play a silver bullet for urban design? Are they a unique medium that can simply mimic reality while holding the urban realm's complex parameters? Can play and games be a tool for communication, collaboration, knowledge creation, or even just appropriating the urban realm? Before looking into the relation between games and design, we should first understand "what is game, play, gamification, and serious games."

3.1 Defining Play, Game, and Gamification

Play has always been an essential part of people's lives. Play is older than culture (Huizinga 1980). Everybody plays, even though our living spaces are generally devoted to everyday-life activities but not playful interactions or games (Thibault 2019c). Today for the digital natives, playful spaces are not on the street but mostly in the virtual space. This dimension created by the interactive technologies provided a limitless way to escape, play, interact, learn, socialize. For most people today, attachment to interactive technologies started with video games. People spend their valuable time chasing princesses on Mario, killing zombies on Left 4 Dead, building cities on SimCity, marrying on Sims, exploring on Fallout. However, why do people devote themselves to this activity even though it was not a necessity to survive? What makes the game unique?

Dutch researcher Johan Huizinga's book, *Homo Ludens*, has been one of the most important and influential texts ever written on the game studies, which enrich humans with a new characteristic next to the sapiens, faber, and economicus. Similar to common languages, Huizinga used the terms play and game interchangeably. He did not create any distinction between play and game. This is also because in his native language, Dutch, there is no such difference. For him, the play was;

"a free activity standing quite consciously outside ordinary life as being not serious¹, but at the same time absorbing the player intensely and utterly. It is an activity connected with no material interest... It proceeds within its own proper boundaries of time and space according to fixed rules

¹ It is important to mention in the Ludification of Culture article, Joost Raessens states that; "Huizinga's definition of play, the Dutch 'niet gemeend' is also wrongly translated as 'not serious', it should have been: not meant"(Raessens 2012).

and in an orderly manner. It promotes the formation of social groupings which tend to surround themselves with secrecy and to stress their difference from the common world by disguise or other means.”(Huizinga 1980, 13)

For Huizinga, play is fundamental for human culture even though it might contrast with everyday life and its needs. When a person plays, they step outside of everyday life. The place can be the same while playing, but how they perceive the spaces changes². It is an irrational, make-believe activity structured by the rules, but most importantly, it is an activity that is fun and free. Even though Huizinga's ideas regarding play are still being discussed, his radical attempt to tackle the concept of play as a fundamental for human society was significant. Later, we saw that many scholars had seen play as not just an unimportant pastime but as an essential part of our lives (Zimmerman and Tekinbaş 2006).

Roger Caillois is the first who made the distinction between play activities. He expands the focus of Huizinga's play/game as a direct response to *Homo Ludens* book. While he was brilliantly defining games and play, different from Huizinga, he also connected this discussion to play and non-play. For him, play can also expose the very nature of the mysterious (Caillois 2001). Caillois puts the distinction between play activities with the concepts of *paidia* and *ludus*. *Paidia* is mimicry, improvisation, expressive free form, while *ludus* was the competitive strife towards the structure created by the rules. For him, these are not separate things but two ends of the same pole. For some scholars, like Sebastian Deterding, this distinction also may show the difference between play and game (Deterding et al. 2011). *Ludus* can be considered as the equivalent of gaming, while *paidia* can be considered as the equivalent of playing. Even though they partially overlap due to their nature directly connected to play activities, the distinction Caillois created is more complex than the separation of game and play. After all, games can be played, but *paidia* can not be *ludus*. The concept of *paidia* and *ludus* will be discussed further in the “The Intersection of *Paidia* and *Ludus*” section.

After 2001, game studies gained an identity of their own outside of the media studies. This development with the institutional changes in education and research generated an increased number of definitions made by the various research regarding play and game (Raessens 2012).

². In the game study, this is also known as Magic Circle.

Most of the definitions made for game and play used Huizinga's and Caillois' ideas of play/game as a base and defined the game as a concept set of necessary conditions that changed through research. In-game studies, these conditions, by themselves, did not define or unique to the game, but a combination of them what created the game. Some of the conditions are rules, playfield, mimicry, conflict goals, surprise factor, active involvement of at least one player, voluntariness, and achievements (Zimmerman and Tekinbaş 2006; Huotari and Hamari 2017; Gurkan 2015; Schell 2014).

Game researcher and designer Jesse Schell takes the task of analyzing various scholars' definitions of play and game. He proposed defining the game as a "problem-solving activity, approached with a playful attitude" (Schell 2014, 47). However, even for Schell defining "game" was also problematic since everybody knows when they play a game, but what a game is varies from person to person. For him, it was like art, sport, or music; it was about the experience of receivers and the view of designers.

Different from Jesse Schell, Huotari and Hamari were more concentrated on defining gamification while analyzing the variant conditions of games defined by different scholars. Based on Huotari and Hamari's analysis of thirteen game definitions from different scholars, all definitions feature systematic components that refer to a structure of games and experiential components, which refer to users' experiences with games (Huotari and Hamari 2017). While systematic components vary from conflicting goals, rules, games as a system and uncertain outcomes, the experiential component includes a requirement of player, mastery, suspense, flow, hedonic pleasure, immersion and achievement. Most of the components used by different scholars while defining games. Only the requirement of players' voluntary involvement and games as a system, included in all the definitions that are analyzed. Huotari and Hamari did not define what games are. For them, the main focus of their work was defining the gamification while analyzing the previous game definitions made by other scholars. But their perspective regarding the different components used while defining game from different researchers or Jesse Schell's reasoning to the unnecessary to defining game, resemble the concept of "family resemblance" by Ludwig Wittgenstein where he used game/play as the main example. Wittgenstein used terms play and games interchangeably and referred to games as a form of family. Like family members have resemblance between them regarding hair, features, eye colours, accent and so on, games have similarities which overlap and

criss-cross in the same way. A component might be accurate for defining one game, while it can be inaccurate for another. There are no universal common components for creating a concrete definition of a game (Hall, Wittgenstein, and Anscombe 1967). Therefore, when we talk about the game, its meaning is connected to how it is used. We understand the game due to similarities (family resemblance) with each other (Thibault and Heljakka 2019).

3.2 Usage of Games in Non-game Context

Games are voluntary; therefore, games need the motivation to be played. Motivational theories have significant importance for understanding the impacts of games on users. Regarding this, Self-Determination Theory stands at the center of motivational theories. The explanation of Self-Determination Theory leads to the two aspects of human motivation as intrinsic and extrinsic motivation. Intrinsic motivation, as the first aspect, represents the inherent satisfaction from the activity itself. It is the natural catalyzer that leads an individual to perform an activity, which provides personal stimulation to keep seeking, exploring, and learning more through that activity. Contrary to intrinsic, extrinsic motivation, as the second aspect of human motivation, represents the rewards that are not inherent to an activity; instead, there are outer stimuli to perform an activity (Ryan and Deci 2000). Games can produce but do not need any material outcome to be played. It does not have to be rational or informative. But still, people spend their valuable time just playing without any expectation, just because they are motivated to do so. This is where the games started to be used by the other fields. Non-game systems, media, industries, and designers started to unfold games' potential regarding their engagement and motivator factor.

Gamification is one of the tools mostly used by service designers as a motivator. Gamification was first named by Nick Pelling as adding game-like attributes to electronic transactions for making them pleasurable in 2002. However, the term gained its popularity nearly after a decade and had been defined several times by academics (Werbach 2014; Huotari and Hamari 2012; Deterding et al. 2011). As the name suggests, gamification ("game"+"-fication") is a process that enables the treated non-game systems to be experienced game-fully (Huotari and Hamari 2012; Deterding et al. 2011). From a conceptual perspective, designers appoint specific "affordances" for generating gameful experiences through a non-game context to create this process. In the case of gamification, these affordances are usually the elements used in games. The purpose of these affordances is to

motivate the user further for the activity at hand and create a series of psychological outcomes. These psychological outcomes contribute to the overall value creation of the user by affecting their behavioral outcome through the use of the system (Huotari and Hamari 2012). Based on this definition, the usage of gamification is virtually unlimited. Nevertheless, from the design perspective, gamification is a challenging and rather delicate matter. The analysis of the targeted group and the purpose with the analysis of the applied context are crucial steps for gamification design.

Gamification can also be considered as a purposeful design where it directly affects the actions in everyday life. Due to this characteristic of gamification, it is often compared, considered, or confused with serious games or alternate reality games (Kim, Allen, and Lee 2008). Different from gamification, serious games are actual full-blown games, offering the activity of game-play but with a prior agenda to entertainment to cause the sought change. Since the first definition of serious games (Abt 1970), the phrase itself kept being criticized. There have been different phrases to avoid the “serious” part of serious games like applied games, transformational games, or games for change. These attempts were to put the focus on the primary mission of serious games, which is to cause a behavioral change among players or practical outcomes created by the game. For that reason, serious games benefit from various behavioral theories. Studies show that when these theories used for both serious games and altered reality games with the consideration of the target group and in an appropriate context, the changes in the human behavior and motivation to maintain the newly adopted behavior is significant (Baranowski et al. 2011; Johnston, Massey, and Marker-Hoffman 2012). Nevertheless, this does not have to mean games or gamification is just disciplinary methodology. On the contrary, it can also be rebellious. However, due to its effect on behaviors and being a motivator cause exploiting games and specifically gamification, to users in various forms. Before getting into more detail about critiques regarding how gamification exploits users and how it can become a disciplinary method, it would be essential to talk about one small aspect regarding the difference between games and gamification. We know that gamification is an input for non-game context that makes them more engaging. It creates engagement parallel to the games with a gameful experience. However, one crucial difference is; inside of the game, players know that they are playing the game. So behaviors are already different from real life, and these behaviors are shaped by both the game and players. Users can be magicians, killers, or just

competitive players inside the realm created for or by players. That is the beauty of the game; when a person exits from this realm, he/she will leave behind the role taken in the game. The behavior that the player conducted on the game for the sake of playing it does not have to have a continuum outside of it. This situation is also highly connected to the concept of the magic circle, which will be explained in detail later in the study. Gamification does not have the same separation from ordinary life as games do. On the contrary, it is a tool that designers are trying to implement in users' everyday life. Hence, the behavior and disciplinary impacts of gamification become much more different than games.

3.3 From Exploitationware to Punk Gamification

One of the most well-known critiques regarding gamification was conducted by the game designer and researcher Ian Bogost. In his article "Why Gamification is Bullshit?" he criticizes gamification regarding how this concept exploits games to exploit people and the marketing origins of gamification (Bogost 2015). For him, gamification is the "practice of marketers and consultants who seek to construct and then exploit an opportunity for benefit" (Bogost 2015, 65). He claims the concept itself does not include games or gameful experiences similar to games. It is just a trendy term, a rhetorical hook created by consultants in contemporary businesses to show their organization in an innovative way. Therefore, game-based trends seem relevant to today's businesses' goals combining them with the flood of a new generation of people to whom games have been an important part of life. Hence, Bogost suggests a new term for gamification; exploitationware. He claims that game design practices should create gratification, but gamification creates loyalty, and it is a behavioral economic technique (Bogost 2015). In this sense, the term exploitationware separates gamification from games and connects it with "software fraud and other pernicious practices in the high-tech marketplace" (Thibault 2019a, 1).

Effects of gamification on users' behavior and motivation show the capacity of gamification's influence on directing the users' actions. This makes gamification a form of "power" (Thibault 2019a). Hence, the ethically shady situation that gamification brings harsh criticism similar to Bogost. For Alberto Vanolo, the power of gamification is directly connected with the concept of nudging. Nudge is defined by Richard H. Thaler and Cass R. Sunstein as "any aspect of the choice architecture that alters people's behavior in a predictable way without forbidding any option or significantly changing their economic incentives" (Thaler and Sunstein 2008, 6). Nudging works

for producing the desired outcome by altering the system for making users choose or behave in a particular way. In the concept of gamification, applied affordances to the non-game context usually create nudges. For Vanolo, with the use of gamification, users can nudge "appropriate" behaviors, "proper" participation, and they can be a "good" citizen, which is an obvious problem for social sciences and urban studies (Vanolo 2019). Due to certain elements like trophies, tasks, progress bar, and ranking, gamification is considered a disciplinary method that quantifies behaviors and social position (Vanolo 2018). Gamification causes people to govern themselves based on the conducts conducted by gamified applications. How many steps a person should take for a healthy day, which food a person should eat for being happy or how many pictures a person should add on their dating profile for finding the love of their life, and so on. The power of governing here is not a form of domination through force nor punishing actions, but creating willing participants while shaping their behaviors for desired outcomes. The same critique can also be conducted towards to phenomena of Quantified Self³ to Smart Cities, where all these concepts are rooted in technological developments, quantification of the information, data collection, and feedback (Whitson 2015). Needless to say, these critiques are not merely towards the gamification but what gamification does uniquely it extends and strengthens the space where subjectification of good and bad citizens/appropriate and inappropriate behaviors happens, in a so-called fun way. Furthermore, gamification, with the enjoyment factor and focusing on the extrinsic motivator, reduces the opportunities to think critically regarding the task. "It can be a way of naturalizing actions and services where instead awareness would be advisable" (Thibault 2019a, 6). Therefore, subjectifying what is good, bad, proper, or appropriate for users makes gamification a subtle and dangerous tool.

Willing participants in the gamified apps and gamification's catalyst effect towards the usage and information put on the app constructs endless data regarding the users. Hence, questions regarding the gathered and monitored data become an important point. The majority of gamified apps are continuously developed by users' feedback and various data sources to increase their effectiveness. In some cases, "in exchange for the provision of personal data and quantified performances, the user is rewarded with a sense of participation" (Vanolo 2019, 62). Examples can be fitness apps

³ The quantified self is the self-tracking the quantified numbers of any kind of biological, physical, behavioral, or environmental information through technological tools (Swan 2013).

where people share data regarding locations, steps, mobility, or just social platforms where people share personal information, photos, locations just to fill the progress bar or to increase their level of visibility on the platform. Also, the data collected regarding the users create another revenue stream where the information is sold to third-parties such as an advertising network (Whitson 2015).

Centralizing gamification as the main reason for these aspects would be a shallow critique. To position gamification regarding data gathering, governance, and its catalyst effects, a more convincing line of reasoning can be seen through the historical shift of values and technological developments in parallel. In this context, Sebastian Deterding creates a path regarding value shifts through the cultural development charts, such as World Values Surveys. For him;

“...with the first wave of modernization comes a shift from traditional, survival-focused values of religion and community to values of economic achievement and rational, legal state authorities. Growing affluence and functioning institutions increase the experience of existential safety. This brings about a second, postmodern shift that deemphasizes authority and economic achievement and foregrounds the maximization of personal well-being and self-expression. Against this background, it appears sensible that postwar generations in postmaterial societies would positively value games and play as worthwhile sources of such well-being and self-expression.”
(Deterding 2015, 33)

Hence with these shifts, companies moved their focus to immaterial, symbolic, and experiential differentiators (Deterding 2015). Companies started to compete for the user's attention to their product. At the same time, with technological development, information systems started to infuse into everyday aspects of life in different forms and purposes, directly and indirectly. From smartwatches to smart cities, the majority of everyday actions produced data that is monitored, sold, and analyzed. With the willingness of the people to transform themselves into pure information in the database, these mechanisms show the embodiment of everyday life into the society of control⁴ where the motivated users constantly reintegrated into the circuit of power (Rey

⁴ Gilles Deleuze illustrates society of control by using an example from his friend Felix Guattari as “Felix Guattari has imagined a city where one would be able to leave one’s apartment, one’s street, one’s neighborhood, thanks to one’s (dividual) electronic card that raises a given barrier; but the card could just as easily be rejected on a given day

2014). Regarding this aspect, Maros Krivy's critique towards smart cities would also be appropriate, where for him, smart city is already a form of society of control. "Power sustains itself by modulating and differentiating attention, desires, and opinions rather than by molding bodies into homogeneous forms. Control is exerted by inducing action rather than restricting it, or, more precisely, by 'curating' a networked terrain within which action is nurtured" (Krivý 2018). In a society of control, the role of gamification is creating willingness, catalyzing the shared data, and helping to produce the appropriate behavior.

One example regarding creating willingness and data sharing can be seen on LinkedIn, which is also seen as a very successful example of gamification. LinkedIn is a social network platform that focuses on creating a professional network for users and career development. One of the main goals for LinkedIn is improving their data quality and creating an effective user network. Hence, accounts should be filled and used as much as possible. Nevertheless, in the beginning, users did not feel interested in filling their data on the website (Lindemann 2019). Therefore, LinkedIn introduced gamification for successfully increasing their database, interaction between users, and creating constant new content. One example of the application of gamification on LinkedIn is creating an experience for its users with the application of progress bars (Werbach 2014). With the progress bar, which is called progress strength, users started to fill their profile with their personal information, skills, media, degrees, past and actual occupation, etc. Hence, with the progress bar experience, LinkedIn shows how much profile complete based on the shared data, which motivates users to complete fully to be a part of the professional network this platform provides. However, the question should be raised, what does it mean to be complete in this platform, and without a progress bar, does it really matter? One of the extreme examples regarding governance and gamification can be seen in the social credit system in China. Gamified social credit systems developing in China show a significant example which similarities can be seen on many dystopian sci-fi media created before, like Black Mirror or Psycho-Pass. Various social credit systems are operating in China, which assigns scores based on behavior online. Even though there is a similarity with the US credit score, the main difference is the system measures activities of the citizen online instead of measuring just payment history, debt, and other similar factors for finding

or between certain hours; what counts is not the barrier but the computer that tracks each person's position—licit or illicit—and effects a universal modulation" (Deleuze 2017).

creditworthiness. The most well-known credit system is called Sesame Credit, which uses data from Alibaba, and users receive a score related to social media interactions and purchases (Vanolo 2019).

However, gamification does not have to be directly connected to exploiting, governing, disciplinary, nor completely separate things from games. It is, in fact, mostly a governmental technology that is implemented for a hegemonic purpose, but it can also be an "antidisciplinary" tool (Vanolo 2018). It can also be used by marginalized groups and become subversive and counter-hegemonic. Vanolo gives examples like the platform of Ahwaa, which is a virtual space created for Arab LGBT individuals to interact and discuss in order to protect and engage the community (Vanolo 2019). Another important example is the CCTV treasure hunt. In this example, "participants have to scout English cities in order to photograph CCTV cameras. The data generated by users are mapped in order to make the cities' surveillance apparatus visible" (Vanolo 2018).

It is worth noting that critiques and mainstream gamification methods commonly use the definition of gamification as "the use of the game design elements in non-game context" (Deterding et al. 2011). This definition has a crucial problem in it, which was raised by multiple game researchers before (Thibault 2019a; Huotari and Hamari 2017). What are game design elements? Like mentioned before in this study, there are no elements unique to the games. Usually, a general understanding of gamification assumes that game design elements are; avatars, tasks, badges, achievements, progress bars, goals, rewards, interactive elements, capturing flags, and the list can go on. However, these are not unique elements to games. In the end, games are, to some extent, mimicry of real life. Any element separated from the game can be found as a reflection in life. For example, avatars in video games are usually used as a representation in the game world, which catalyzes the player's role-playing experience. Also, the same elements are used in gamified apps to allow personalization of the application. Even though the concept of avatar gained its fame through the legendary game "Ultima IV: The Quest of the Avatar" in 1985, it has never been a unique element to games (Wildt et al. 2019). It is just a "selected mask," put by the player, which is the term that originated from Hindu scripture and theological literature as a form of cultural appropriation (Wildt et al. 2019). Another example would be the element of badges explained by Mattia Thibault. Badges are highly used and well-known "element" by service designers for the

gamification process. However, "badges are an imitation of those given by the Boys Scouts of America to reward their members, which in turn are inspired by military medals and decorations which are probably heirs of the prehistoric hunt and war trophies" (Thibault 2019a, 60). Therefore it is crucially important to understand that using game elements does not necessarily create gameful nor playful experiences.

3.3.1 Punk Gamification

At this point, it would be important to talk about another end of the pole of gamification while placing the exploitationware on one end. The opposite end of the exploitationware would be "punk gamification." Punk gamification is a concept created by Mattia Thibault to vary ideological approaches towards gamification to create an alternative form than mainstream gamification. The main aspect of punk gamification is; using gamification as a tool to empower citizens and help them to reappropriate the public space instead of manipulating, exploiting, or transforming the users into data. For him, punk gamification should be based on two principles: "gamification should be more about freedom and less about rules and play is not always as fun and pleasurable..." (Thibault 2019a, 66). For him, the power of gamification does not merely mean to be about exploiting the users. Nevertheless, in many cases, gamification focuses on a positive impact on users from health, learning to civic engagement while nudging people towards doing the "right thing." Like the critiques mentioned before, Thibault also problematizes this situation, which is powered by the top-down aspect of gamification. What is the right thing? If there is a right thing, why do we need gamification to make it happen, and who decides the "right thing" for people? For him, this was the central problematization of gamification as an instrument of control, and this was the reason why we need punk gamification as an instrument of freedom(Thibault 2019a). Hence, punk gamification should be bottom-up. It should be created for people's own needs/desires, not for the external reasons created by third-parties. If it is created by third-parties, it should be an inclusive design for the play, freedom, creativity, and experimentation without assuming the greater good or the right thing. In contrast to defining the right thing, it should be critical and challenge the norms (Thibault 2019a). Different from other mainstream gamification, punk gamification focuses on the play aspect while mainstream gamification focuses mostly on so-called "game elements." These different focuses also affect the gamified concepts regarding if the

actions are free, ludic, experimental or structured, disciplinary, nudging. For understanding this, it is important to see the connection between paidia and ludus.

3.4 The Intersection of Paidia and Ludus

Play generates games; without play, there will be no games. Nevertheless, that does not mean every playful activity produces games. Like mentioned before in this study, Caillois suggests that every play activity can be placed along a continuum of paidia and ludus. For him, paidia manifests itself as a diversion, chaotic, spontaneity, improvisation, and carefree, while ludus is a calculation, contrivance, and subordination to rules (Caillois 2001). Caillois states:

“At one extreme an almost indivisible principle, common to diversion, turbulence, free improvisation, and carefree gaiety is dominant. It manifests a kind of uncontrolled fantasy that can be designated by the term paidia. At the opposite extreme, this frolicsome and impulsive exuberance is almost entirely absorbed or disciplined by a complementary, and in some respects inverse, tendency to its anarchic and capricious nature: there is a growing tendency to bind it with arbitrary, imperative, and purposely tedious conventions, to oppose it still more by ceaselessly practicing the most embarrassing chicanery upon it, in order to make it more uncertain of attaining its desired effect. This latter principle is completely impractical, even though it requires an ever greater amount of effort, patience, skill, or ingenuity. I call this second component ludus.” (Caillois 2001, 26)

Activities in games move back and forth between paidia and ludus. In addition, Deterding et al. also state that "playfulness broadly denotes the experiential and behavioral qualities of playing (paidia), gamefulness denotes the qualities of gaming (ludus)" (Deterding et al. 2011, 11). While the paidia is the most primal, anarchic, instinctive form of play, Ludus emerges from disciplining it. Experiences gained through paidia cause the creation of rules, techniques, goals, and structures, which makes ludus (Caillois 2001). However, this shift is not one-sided. Chris Bateman states that:

"Pure paidia, then, is short-lived - but the impulse for paidia can exert itself at all scales of ludus. Whenever we are given a set of rules for play, it can be fun to explore what happens when those rules are bent, overlooked, or replaced, although the group must be willing. The more that a form of play is repeated, the more likely it is to become more formally expressed - this is the journey

from paidia towards ludic play - but paidia can re-exert itself as a temporary escape from the rules at any time." (Bateman 2005)

Majority of definitions of games in game studies mostly defined game and gaming from the idea of ludus, while in contrast, toy and playing were closer to paidia (Deterding et al. 2011). Nevertheless, there are certain games that blunder most definitions made for games by the scholars mentioned before. Video games categorized as walking simulators can be a good example of this situation. For example, *Beginner's Guide* is a walking simulator game where the only thing the player needs to do is walk and listen to the narrator. There are no rules, no need for mastery, no competitive strife, no conflict goals, or even active involvement, and playfulness or gamefulness is questionable for this game. However, the game is one of the unique experiences that allows players to explore the mind of the game developer. God games, sandbox games, or the games created by situationist international also can be an example regarding this aspect. The common thing regarding these genres is they are closer to paidia than ludus. Most of these games do not have strict rules, tasks, or need mastery. It is more about exploring, testing, playfulness, and creativity. Even for some people, games like *SimCity*, which is categorized as a god game, or *Minecraft*, which is categorized as a sandbox game, are called non-game games or software toys due to their lack of structured goals, tasks, and challenges. These kinds of games, which are designed closer to paidia, also create an uncommon situation for players where a player can easily create ludus. Hence players' journey between paidia and ludus and their interactiveness in these games creates a unique experience, where thousands of hours are spent by players. Regarding this aspect, *Minecraft* creates a good example. *Minecraft* is a sandbox game without any specific goal or scenario, where players are allowed to play as they wish in the infinite and blocky terrain of the game. *Minecraft* creates a very simplistic, easy to perceive, and flexible environment where players can farm, explore, mine, craft, pet, fight, construct, etc. There are limitless possibilities that can be created by this game. Hence the game itself is a constant journey between paidia to ludus. The simplicity and flexibility of *Minecraft*, especially in creative mode, allows users to create sketches for urban design projects to instructions for teaching chemistry. Therefore it justifies the statement regarding why the game is called a software toy or non-game game. However, on the other hand, events like *Minecraft Championship* or competitive mods created for *Minecraft* give players goals, challenges, competitive strives, and the need for mastery. These two

examples show that games like Minecraft can be placed both in categories of ludus and paidia. "The infinite possibilities of paidia become mediated by the pragmatics of interaction. If the same group regularly return to the same playground, patterns of play will develop... expressions of ludus will gradually mediate the initial anarchy" (Bateman 2005). Similar creative freedom, flexibility, and playfulness can also be seen as open-ended toys like Lego or actual sandbox playground in contrast to action figures or puzzle toys.

Caillois spectrum of ludus and paidia may also show interesting insight regarding gamification as a nudging effect and form of power. For games, ludus manifests itself from paidia. It came from transforming a carefree, spontaneous act into a goal-oriented, rule-based, and calculated one. Ludus creates rules, goals, tasks, directions from disciplining the paidia. For example, when a child throws around a ball, it is paidia. It has no rules, no goals, nothing. It is just throwing the ball for the beginning. Nevertheless, as soon as conventions, techniques, goals start to emerge, it manifests ludus. For the ball example, it can be as simple as throwing the ball inside the basket. The application of ludus changes the technique of the child for throwing the ball. Because the task is throwing the ball into the basket, the particular ways to throw the balls becomes pointless, and action becomes more goal-oriented than just throwing the ball. Hence the application of ludus creates a directing effect. It causes the players to behave in a certain direction inside of the structure of the game. In addition, creating challenges is also important for the flow of the activity. It reduces the boredom of paidias' monotonousness. The application of ludus may increase engagement, and it provides a reason to play more with a sufficiently entertaining challenge (Bateman 2006).

These examples do not mean that, for games, paidia is better than ludus or vice versa. Neither is better as long as together they applied appropriately to the game design. However, outside of the game, this is where it becomes problematic. This is where the critiques centralized regarding gamification. On the one hand, mainstream gamification uses the application of ludus to make their context more gameful and engaging. But also, ludus, in nature, mediates actions, creates targets and conflicts. Hence directs the users towards the designed goal. In addition, there is not much paidia allowed in this context. Users do not explore, test, try to bend the rules, or work outside the designated goals. On the other hand, what e.g punk gamification does is the application of paidia. It creates open-ended structures where the individuals are engaged by paidia itself. It allows ludus to emerge from the paidia by individuals who play the game, not that the ludus is

implemented from the top. Hence, implementing *paidia* or *ludus* creates a different impact on the users. Based on the implementation, gamified action becomes free, open-ended, experimental or structured, disciplinary, nudging. However, what does it mean to be outside of the game? At this point, it is important to explain the concept of Magic Circle.

3.4.1 Magic Circle

Johan Huizinga discusses games as an activity that takes place outside of everyday life. For him, games happen inside of the material or artificial playground. Games create temporary worlds within the ordinary world (Huizinga 1980). From Huizinga's work, Katie Salen Tekinbaş and Eric Zimmerman suggest the term magic circle as a "...special place in time and space created by the game" (Salen and Zimmerman 2004, 95). The separation created by a magic circle creates different time and space for players, hence, different rules, conflicts, goals, logic or morality applies inside of the magic circle. For players, the distinction is clear. Markus Montola et al. explain this as the playing contract (Montola, Stenros, and Waern 2009). In games, the actions are real and conducted willingly by players. Even though the actions are real, they do not have the same meaning as they do in everyday life. "The events taking place within the contract are given special social meanings" (Montola, Stenros, and Waern 2009, 11). For gamification, this contract would not apply. What users need to do in a gamified context is not outside of everyday life. Hence consequences of the actions have the same social meaning and effect within everyday life. Therefore, the application of *ludus* becomes a problematic topic in gamification while being an essential part of the game design.

4. Towards a Playful Creation of the Urban

For the last decade, games and gamified applications are often described as being a unique medium to create user engagement regarding designing and planning the urban realm while improving public participation (Ampatzidou et al. 2018). Games and play became an important motivator and fun tool not only of the design methods but also to promote senses of ownership, community, and belonging, which all may contribute to improving urban life (Thibault 2019c). As games and gamified applications gain popularity both in academy and practice, it is worth understanding how games and play started to play a role in participatory practices for urban design.

Both play and participatory approaches separately started to infuse architecture in the 1960s from the examples of Constant's utopic New Babylon project, where the homo-ludens became the main subject, to Davidoff's advocacy planning concept, where the individuals become involved in the planning process with the expert representatives. Conclusively, the 1960s civil rights movements and paradigm shift, known as the spatial turn, caused the emergence of an idea where "professional designers should relinquish control over decision-making and implicate the end-users in the shaping of their living settings"(Vardouli 2013). During this time, the modernist movement received wide criticism due to its focus on productivity, function, and capital while ignoring the actual users (Tan 2014). Urban space was an absolute geometric form for modernist understanding, while the architecture was "...the masterly, correct and magnificent play of masses brought together in light" (Corbusier 1986). Hence, based on this movement, the urban realm's social dynamics were a minor subject for architects and planners. The urban realm is seen as an engine of economic life while it is designed and planned to optimize work and other practical, rational, preconceived objectives (Stevens 2007). Hence, this way of understanding the space makes it impossible to see beyond the physical and static structures. Therefore, critiques towards modern architecture are usually centralized on "being unable to respond to the growing complexities of the built environment, and therefore resorting to statistical generalizations, which suppressed the particularities of their designs' future inhabitants" (Vardouli 2013, 243).

Civil rights movements in the 1960s caused a drastic change in design and planning. Individuals in North America and Western Europe raised their voices for better labor, living standards, equality, and education opportunities. Rising values such as individual freedom, personal well-being, and the *right to the city* started to reflect on architecture and planning (Tan 2014). Also, the

concept of space has become a major subject for the humanities and social sciences. With this shift, space is seen as not only a geometric form but also a social product where social and cultural relations are affected directly by it (Lefebvre 1991). Hence, the modernist approach to space becomes problematic that needs to be changed. During this time, infuse of the play and participatory approaches can be seen as a counteract towards modernist architecture with the argument "in order for design to be performative for its end-users, it needs to be performed by its end-users"(Vardouli 2013). Consequently, one of the tasks of architects and planners became involving the users in the design process.

4.1 Passive users or Active creators

Even though the concept of play was not a significant part of the participatory approaches during the 1960s, it constantly emerged as a key aspect of urban life, primarily by the writings of Henri Lefebvre and Situationist International. Both Henri Lefebvres' and Situationist Internationals' critiques of modernism centralized around the total domination of capitalism towards everyday life. For them, modern architecture and capitalism tend to maximize functionality while restructuring urban life for homo-economicus (Stevens 2007). Hence, the concept of play is considered as an escape from the system constructed by capitalism and modern architecture (Lefebvre 1991). In the end, the play has no space in modern architectures' focus on productivity, function, and capital. Play is considered a *waste* for the *rational man*. However, for Lefebvre, this *waste* was needed for humankind. It was not something that is unnecessary or without a purpose. Play shows that everyday life is far richer than what architectures' scope of rationality provides for. He states that "play is part of every human activity... It is impossible to imagine mankind without play activity, or society without underlying or manifest games (Lefebvre 2002, 193)". Hence, for Lefebvre, play was one of the aspects of life that need to be touched by planners and architects.

4.1.1 Situationist International, Unitary Urbanism and New Babylon

For Situationist International, play and games placed a much more central role in their writings and projects compared to Lefebvre. For them, play was not only one of the key aspects of urban life but also it was a primary tool for counteracting capitalism. They had been strongly influenced by Huizinga's book *Homo Ludens* (Elliott 2009). The most prominent member of the group, Guy Debord, states that due to the idealization of production, the social function of play seems as "no

more than decaying relics mixed with inferior forms that proceed directly from the necessities of the current organization of production” (Debord 1958a). For Situationists, play activities are not outside of everyday life or work, in contrast, play is the work of Situationists which is "precisely the preparation of ludic possibilities"(Debord 1958a). Situationist activities dissolve the magic circle of the game and turn the city into one big boundless playground⁵. In this regard, one of their most well-known play activities of Situationist International was *dérive* (urban drifting). This method was a playful tool for them to understand the social environment, ambiance, and its effect on individuals' behavior and emotions (Debord 1958b). It is different from the classic notion of strolling through the city. It is about raising awareness and exploring forms of life beyond what the urban realm is designed for, with a playful connection to the city (Montola 2009). Other than *dérive*, key concepts of Situationists International, which are *unitary urbanism*, *construction of situation*, and *detournement*, all highly connected with the play activities, if not seen as a form of play. Regarding these concepts, *unitary urbanism* has fundamental importance considering the impact of the play on architecture and planning.

The Situationists followed the parallel way to Lefebvre, which was trying to revitalize the Marxian project in response to post-war era society which was affected directly by consumerism and media (Best and Kellner 1999). For them, architecture and planning were a great tool for capitalism. Debord states that "Urbanism is the modern method for solving the ongoing problem of safeguarding class power by atomizing the workers who have been dangerously brought together by the conditions of urban production. The constant struggle that has had to be waged against anything that might lead to such coming together has found urbanism to be its most effective field of operation"(Debord 2005, 95). For them, planning and architecture is a tool to help capitalism to take over the natural environment while creating representations. These positions of professions created problems for the situationist. Hence, they start to question the motivations behind architecture and planners. To some extent, they even compare it with concentration camps. "If the Nazis had known contemporary urbanists, they would have transformed their concentration camps

⁵ This notion later will be known as the Pervasive Game. "A pervasive game is a game that has one or more salient features that expand the contractual magic circle of play spatially, temporally, or socially" (Montola 2009).

into low-income housing"(Vaneigem 1997). Hence, they centralized the critiques of modern urbanism in the concept of unitary urbanism.

Unitary urbanism, originally born from the "Formulary for a New Urbanism" article by Ivan Chtcheglov (Gilles Ivain) in 1953, where the article started with a simple and strong statement: "We are bored in the city" (Chtcheglov 2006). He imagined playful and interactive movement through the cities in different areas where "architectural complexes will be modifiable. Their aspect will change totally or partially in accordance with the will of their inhabitants" (Chtcheglov 2006). This idea was later employed and developed by Situationist International between 1953 and 1960 with the term unitary urbanism. For them, "unitary urbanism is not a doctrine of urbanism but a critique of urbanism"(Situationist International 1959). Unitary urbanism rejects the functionalist logic of modern society. Instead, it aims at the realization of a dynamic city in which freedom and play would play a central role. Situationists sought to break out of the city's monotonous routine by creating situations that disrupted the normal course of events to experience it in a creative way. Hence constructed situations are part of unitary urbanism for creating a "freer" society (Nieuwenhuys and Debord 1958). What they want, was the urgent revolution that would take place at all levels of society and penetrate the whole experience of everyday life. Therefore, they opposed all situations that could be identified with the capitalist society, including modernist architecture and planning (Ögdül 2010). The most concrete manifestation of unitary urbanism is Constant Nieuwenhuys's project New Babylon. He designed a utopia for homo ludens, where the city was drawn by inhabitants (Wigley 1998). For him, unitary urbanism about turning inhabitants into active creators. He problematizes the situation as;

“This does not involve art. Our life is a game. The world around us is constantly changing. Should we remain on the fringes and leave it to scientists, engineers and politicians to decide the shape of our lives and the world in which we live? There are marvelous inventions with countless opportunities and yet what is lacking is playfulness; we cannot do anything with it” (Nieuwenhuys 1960).

New Babylon is a utopia project that consists of an enormous series of models, sketches, maps, and paintings created between 1959 and 1974. The project was also called "antithesis of the society of lies" by Constant (Heynen 2000). Constant creates a utopia where temporary and short-lived things are dominant. It is an empty page that is collectively filled and changed by its users. He

does not try to create fixed routes, goals, or enclaved static structures. For him, this is a world of collective creation, experimentation, and absolute transparency. It is the home of Homo Ludens. "New Babylon is the work of the New Babylonians alone, the product of their culture. For us, it is only a model of reflection and play" (Nieuwenhuys 1974). The basis of Constant's project is the idea that work will no longer be necessary due to the full automation of production. Hence, it will open the way to a massive increase in the number of Homo Ludens. For him, this increase means the liberation of human's ludic potential, which is directly connected to liberation as a social being (Nieuwenhuys 1974). In New Babylon, inhabitants are freed from all ties, norms, and conventions. They live in an environment that they have full control of. In this world the quality of each space can be adjusted. It is a dynamic labyrinth that is constantly reconstructed by the spontaneity and creativity of its inhabitants. Inhabitants can adjust the light, temperature, humidity, or shape of the room continuously (Wigley 1998).

What was striking about Constant's New Babylon is: even though this project was an enormous game and neither Situationist International or Constant were familiar with Caillois's idea of play activities, Constant created the structure closer to paidia than ludus. New Babylon was a place for embracing active inventions. But it is not designed for competitive striving, designed goals, or tasks, even though these aspects can be an important part of a game or creation of urge to play. For him, the lifestyle in New Babylon recognizes no goal in life other than the life itself. In his words, "A lifestyle, in other words, which recognizes no goal in life, which is not intent on giving life a meaning, but which makes life itself the goal, which looks for the fulfillment of this life in daily praxis, a lifestyle, which aims to be the creation of our life" (Wigley 1998, 132). The reason behind why New Babylon was designed closer to paidia can also be traced to the situationist notion of play. For them, not all playful actions can be part of the situationist understanding of play, particularly competitive aspects of play which is highly connected with ludus. Debord states, "The feeling of the importance of winning in the game, that it is about concrete satisfactions — or, more often than not, illusions — is the wretched product of a wretched society"(Debord 1958a). For them, the element of competition and other extrinsically motivating playful components should partly vanish in favor of the "authentically collective concept of play"(Schleiner 2011). These components are complicit with capitalism (Schleiner 2011). Therefore, for New Babylon, the conflict of interest, competition, and exploitation are notions devoid of content (Wigley 1998).

Hence, New Babylon is imagined as an open-ended structure in which the inhabitants are engaged by *paidia* itself where *ludus* can emerge only as inhabitants wish.

4.1.2 Yona Friedmans' Spatial City and Flatwriter

New Babylon was not the only utopian project which allowed the playful interaction of end-users during the 1960s. After all, during this time, with the mass civil rights movement and paradigm shift on the concept of space, architectural utopias started to focus on freedom of choice. Hence, projects like the Plug-in City, Fun Palace, Spatial City sought to highlight the empowerment of the individual choices. Ekim Tan connects this new agenda of architects with the rise of individualism. She states that;

"Imagine Peter Cook's Plug-in City serving her residents' instant desires, Buckminster Fuller's Dymaxion dwelling machine helping its owner escape the power-hungry corrupt system and become a nomad again, Non-Plan's do it yourself control-free zone alternatives to the bureaucracy, speculation from surrounding developers, the construction industry, and the psycho-geographical maps of the Situationists, all point to an individualist society seeking to enrich their own experiences and express themselves" (Tan 2014, 67)

Another project that should be mentioned here is Yona Friedmans' Spatial City and Flatwriter due to its influence on today's computationally mediated playful participatory approaches. Similar to Constant, Friedman also thought that automation causes an increase in leisure time. Therefore, with the high increase of population in the cities, he proposed that cities should design as adaptable systems towards change, where for him, the concept of mobile architecture was the answer. Both Constant and Friedman's projects and ideas share similar views towards modern urbanism while focusing on automation, mobility, and freedom of choice. However, they have ideological differences in their works (Wigley 1998). Hence, they criticize each other's projects through ideological differences, which is stated by Mark Wigley. Constant criticized Friedman's project as a remaining functional city, while Friedman responded that Constant's project was too imposing of a one-person vision (Wigley 1998).

Friedman, different from modernist understanding, considered architecture as a social product and developed the concept of mobile architecture. For him, mobile architecture was about creating a system of construction that allows people to choose, adapt and change their environment (Vardouli

2013). A concrete manifestation of Friedman's mobile architecture was the Spatial City. For him, the architect and planners' role should be a system organizer that enables a neutral environment where inhabitants can decide and change their living spaces. He designed the Spatial City as a mega multilayered skeleton structure that covers an existing city. The units in the structure were interactive with the inhabitants, where they can choose and change as they wish (van Vliissingen 2012). The skeleton of the Spatial City stands on pillars that provide basic needs like water, electricity, and sewage (Vardouli 2013). In this system, all possibilities should be presented to the user to decide in the simplest way possible for the average person can understand and react (de Wit 2009). Hence, he published manuals for inhabitants to create and change the living spaces as they want. Later, these manuals integrated with a computer program called the Flatwriter (van Vliissingen 2012). As reviewed by Theodora Vardouli, even though the spatial city was highly impactful, Friedman's main intention was a programmatic and non-formal renewal for architecture and planning (Vardouli 2013). Hence, he proposed a computer program called the Flatwriter. With the Flatwriter, users can select a structure from the list of graph combinations and symbols that they can inhabit and customize their living spaces (Vardouli 2013). Friedman believed that individuals should have the right to choose and change their own living spaces while degrading the role of an architect. Today this debate over inhabitants shaping their living environment has been largely modified into the customization of users' needs, where gamification has been used as an important tool (Tan 2014). Companies started to use manuals created by the designers to guide the end-users through the list of elements used on standardized structural frames to produce a personalized product (Vardouli 2013). For example, Nike lets customers customize their own shoes based on the manuals that designers created, from colors to materials, which is similar to how players customize their character in a video game. In this regard, it is interesting to see how empowering an individual to design and change is later used mostly as a product for profit.

These utopian projects are open-ended structural visions of architects, which are based on different assumptions and values. In addition, even though they were created as a critique towards modernist architecture and, to some extent, critique of capitalism, they were also criticized for becoming an instrument for the capital (Keyvanian 2000; Wigley 1998). Nevertheless, one crucial aspect of these projects is they distribute the power of shaping space to users. Therefore, in a way, the projects see everyone as a creator without expecting any expertise. The role of architects and

planners is becoming a catalyst for this designing process. These ideas later will be highly influential for participatory approaches, especially for co-design methodologies (Chapman and Gant 2007).

One common thing about these utopic projects is that they are based on a designed architectural complex that will be filled and shaped by users' actions towards physical space. Even though the structure's dynamic form may allow nonstop "design" based on users' actions, users were not involved in the designing phase of the projects by architects. But, due to the same critiques of modernism mentioned at the beginning of this chapter, participation of individuals in the designing and planning phase also become a crucial question of this era. While the idea of participation can be traced to the prehistoric era, it is re-originated in the 1960s, and from there, participatory approaches have been actively developed and varied (Sanoff 2000). Vardouli states that "User participation in design emerged as an alternative to a malformed and inefficient professionalism, counterpoising the argument that in order for design to be performative for its end-users, then it needs to be performed by its end-users" (Vardouli 2013). Today, even though the terms and methods such as co-creation, co-design, open-source urbanism, DIY, gamicipation, cooperative design carry multiple interpretations, these term goes under the name participatory design which is used as an umbrella term in this study that covers the participation of "others" in a design (E. B.-N. Sanders and Jan Stappers 2017; Harder, Burford, and Hoover 2013).

4.2 Participatory Approaches

Considering that space is a social phenomenon rather than a solely physical object and the user should be re-grasped as an active subject and should be involved in the design process, participation in design and planning emerged and started to be implemented in the 1960s. In this regard, Paul Davidoff's concept of advocacy planning with the "*Advocacy and Pluralism in Planning*" article has primary importance in creating the foundation for participatory approaches in planning (Davidoff 1973). For him, planning should be done according to everyone, especially minorities and low-income families. Planners should take the role of advocate where they can be the voice, enable and defend all groups in the city (Sanoff 2000). Hence, influenced by Davidoff's concept of advocacy planning, community design centers were established in the USA and England to enable people to participate in planning and design processes (Sanoff 2000).

Primary to Davidoff's advocacy planning concept, the participatory approach becomes a popular debate in architecture and academia. Hence, various scholars made different interpretations for participation. Sherry Arnstein's article *A Ladder of Citizen Participation* became one of the most influential articles for this debate. She famously states that "the idea of citizen participation is a little like eating spinach: no one is against it in principle because it is good for you" (Arnstein 1969). Hence, for her, there is a critical difference between being a manipulative empty ritual and giving the people power so that they can affect the actual outcome. Participation of citizens in planning and design decisions takes place at various levels. Therefore, she created her famous typology of participation which is called "Ladder of Citizen Participation." She illustrates the purpose of the eight types of participation and arranges them in a ladder pattern. For her, the underlying issue is participation should provide people enough power to turn "nobodies" into "somebodies" on the issues that concern them. Hence, higher on the ladder means more power to a citizen, while lower means just an empty ritual of so-called participation. In order for participatory approaches to stop being an empty ritual, it must give the people decision-making power. Therefore, participation, as active involvement, does not take place in the first two steps of the ladder, which is called manipulation and therapy. The real objective of these two steps is not to enable people to participate but to enable people to adapt, believe, and accept the decisions made for them. The next two levels are "informing" and "consultation," which are also referred to as tokenism. This part is about being informed, heard, and having just a *voice* in the decision-making. At these levels, even though participants are heard, there is no assurance that they will have an impact on decision-making. The fifth level, Placation, is situated as a higher level of tokenism which to some extent allows citizens to impact the design. However, still, at this level, authorities have the main power to decide. For the last three levels -which are a partnership, delegated power, and citizen control- participants gained power increasingly to decision-making processes. At the partnership level, citizens can negotiate and engage in the decision-making process with traditional powerholders. For the top two levels, citizens obtain the power directly to decision-making regarding the issues concerns them (Arnstein 1969).

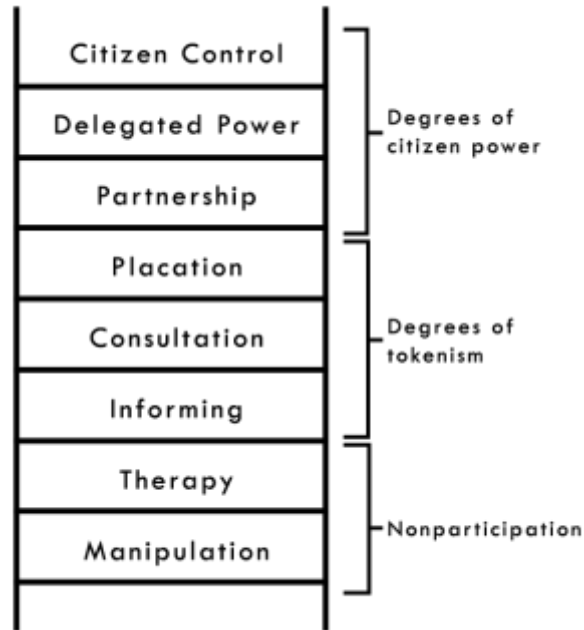


Figure 1: Arnstein's ladder of participation (Source: Arnstein 1969)

A similar formulation of participation can be seen in various research. According to Fredrik Wulz, participation can be seen as seven different forms, which fills the gap between full architecture autonomous to user autonomous (Wulz 1986). These forms, which are evaluated in the context of the role of the users and architects, are listed according to from passive to active status of the user; representation, questionnaire, regionalism, dialogue, alternative, co-decision, and self-decision. Representation is the most passive form of participation where architecture has the main responsibility for the design process. The role of the architect in this form is to a predisposition towards representing the user's interest. Questionnaire is about collecting the user's opinions. Regionalism means that design works in line with the expectation, culture, and interests of the locals in the designed area while the architect still obtains the main authority. Dialogue is based on the conversation between locals and architects, where the user's knowledge works as a source for architects' products. Alternative is providing information and concrete/understandable options to locals about the design where users can choose according to their own wish. For the last two situations, which are co-decision and self-decision, users take the main active role in the designing process. The difference between them is the architect's influence and the user's actions as creative

entities (Wulz 1986). Similarities between Wulz's forms of participation and Arnstein's ladder of citizen participation can be seen as how they both use the user's influence on the design as a central point for their typology. For the time, these formulations provided a useful distinction for understanding the degree of participation made by architects and planners. However, they are few crucial differences. For example, Arnstein's therapy and manipulation concept, which is the bottom level of the latter, can be seen as a form of dialog on Wulz's forms of participation. Even though for Wulz, the dialog was about being between active and passive users, which is about balancing the user's influence on the design, based on Arnstein's concept, it can also be manipulative or therapy which is part of non-participation due to lack of power given to users to decide. Nevertheless, for Wulz, architects could not be part of just one single form in the process of participation. Hence, he proposes that architects should create an individual participation profile according to the project where the diagram shows architects and the project's attitude towards participation (Wulz 1986).



Figure 2: Example of Wulz's participation profiles (Source: Wulz 1986)

4.2.1 Critique of participatory approaches

Even though participation re-emerged as a highly praised idea for architecture and planning, the more it started to infuse in practice, the more it became criticized. Formulation of scholars, which is mentioned before, showed that not every use of participation necessary means that involvement

of the users to the design and planning. Furthermore, while participation was becoming an inherent part of planning and architecture, the method's functionality became highly questionable at the end of the 20th century.

The most crucial critique towards participation is regarding the *user's engagement*. The problem lies in the very idea of participation, where it needs a certain extent of commitment and active involvement by inhabitants to the projects they are affected by. But usually, the commitment of people depends on the various factors, from cultural connection to space to socio-economic status (Ferilli, Sacco, and Tavano Blessi 2016; Albrecht 1988). According to Guido Ferilli et al., disadvantaged groups tend to be less inclined to participate, whereas socio-economically advantaged groups are much more proactive in actually affecting the projects in a meaningful way for their own interests (Ferilli, Sacco, and Tavano Blessi 2016). On the other hand, participation is seen as a declining methodology at the end of the 20th century due to participants' disengagement and disbelief towards the usefulness of participation. According to Josh Lerner, people prefer to use their precious free time on activities they enjoy, instead of attending community meetings or zoning hearings which they are not sure their opinions matter, and if they participate, they tend to participate with minimal effort as possible (Lerner 2014). Also, the scale of an area becomes an important aspect due to the correlation with the number of participants and the process's capacity (Sanoff 2000).

Another critique towards participation is regarding *language*. For the most part, participatory approaches during the 20th century were seen as a dialectic of governance from power holders to the commons (Tan 2014). In addition, Jeremy Till points that communication between experts to the participants dominated by the professional language (Till 2020). Hence, architects and planners initiate the communication on their own terms, where the participants are alienated from the process due to professionally coded drawings and language (Till 2020). Also, Johann Albrecht argues, achieving a genuine understanding of participants is difficult due to the differences between the knowledge and values of participants and designers (Albrecht 1988). Even with the genuine understanding, participants' wishes may cause a negative, restrictive element to the design due to participants' knowledge depending on the limited number of examples and experience regarding the design decisions (Albrecht 1988). Hence language gap between the designers and participants becomes a crucial point. In addition to this, Doina Petrescu argues that existing

participatory communication, oriented towards a certain expected functionality (Petrescu 2013). Hence, she emphasizes the interest in participatory approaches as a form of communication that should liberate the speech of all actors.

Participatory approaches are also criticized regarding achieving consensus and conflict management. As Albrecht pointed out, the individual wish of the participant can be conflicted and incompatible (Albrecht 1988). Even with the similar interest of users will not necessarily mean that they live in consensus. Hence, consensus needs to be built with participatory approaches. The problem regarding building consensus is that it is an outcome of a process where preferences and guided effort affect each other, which tends to freeze as a permanent fact when it has been achieved (Carlo 2005; Albrecht 1988). As Albrecht states, "Consensus needs to be continually readjusted as new groups appear and previous relations among old ones change. A consensus that becomes permanent that loses the capacity for transformation, and that is unresponsive to changing situations can only represent past states of society"(Albrecht 1988, 26). Furthermore, Tim Richardson and Stephen Connelly raise the questions, even if the participatory approaches achieve consensus, does it mean achieving better design solutions (Richardson and Connelly 2013)? For Henry Sanoff, there is no best solution to design problems. Hence, every design problem has multiple solutions. It should not be considered expert decisions better than decisions of individuals. Therefore design or planning tasks should be transparent and include multiple solutions, which people who are affected by should come together, discuss and shape the possible solutions (Sanoff 2000). But for him, the problem was the lack of diversity created by the participatory approaches, especially due to many people who are affected left out of the process. He states that because qualities like motivation, skills, and resources, which lead to people participating, are not equally distributed. Hence, it caused an unequal distribution of possibility to participate (Sanoff 2000).

4.3 Designing with and for End-users

Today, participatory approaches witness a wide transformation that is evolved as a result of the criticisms mentioned before (Sanoff 2000). Ekim Tan argues that participation is no longer a dialectic between government, architects, or planners to the users. Compared to the 20th century's participatory methods, such as Davidoff's concept of advocacy planning where experts positioned themselves as representatives, while today people have the chance to be more directly involved in decision making (Tan 2014). As technological developments offer a wide range of tools and forms

of participation, the new insight of participatory approaches and change in the socio-political dimension causes a very different and broad landscape of today's participatory approaches.

Designers and researchers have actively developed concepts regarding participation through the traditions of user-centered design and participatory design (Harder, Burford, and Hoover 2013). Hence, to see the relationships and complexity between various approaches, methods, and tools regarding the user's involvement in the design, Liz Sanders maps the contemporary design research (E. B.-N. Sanders and Jan Stappers 2017). Sanders' design research map is defined by two intersecting dimensions. The first dimension is defined by approaches relating to if the design comes from a research-led perspective or a design-led perspective. The second dimension is defined by the mindset, differentiated based on whether the users are seen as a subject or as a partner by experts (L. Sanders 2008). This map has become an important tool for designers to position themselves on the vast landscape of design approaches and correlate and see the overlaps between various research and new terms that are constantly developing. However, for the methodology, it is important to see the power relationship between the actors and the stage of the concept in the decision-making process. For example, active participation of users during the conceptualizing of the architectural design does not necessarily mean that participation during the implementation of the design. Hence, these aspects can be crucial for architecture and planning where even power relationship was the first main topic regarding critiques for participation. Regarding these aspects, Marie K. Harder, Gemma Burford, and Elona Hoover's cross-disciplinary framework for participation can be helpful (Harder, Burford, and Hoover 2013).

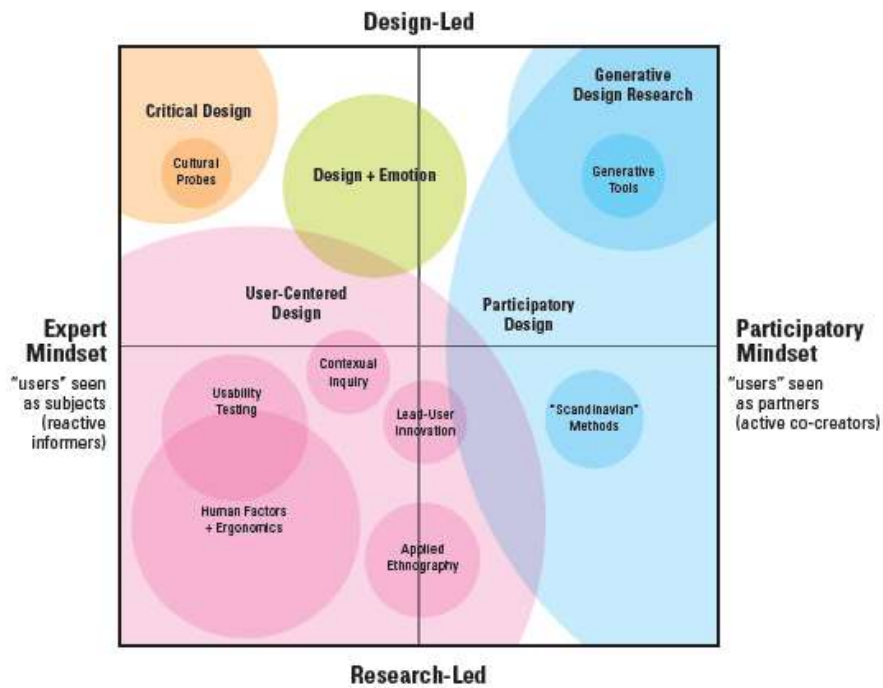


Figure 3: Sanders's map of design research (Source: L. Sanders 2008)

Harder et al. show how participatory approaches in many fields are parallel to each other even through the different vocabulary. Hence, it becomes essential to create a common vocabulary and show how these approaches are correlating, especially for interdisciplinary works where different indications may cause confusion. It is also important for this work due to the project's connection with various disciplines. For their framework, Harder et al. used three main concepts, which are called depth, breadth, and scope. *Depth* refers to the extent of control over decision-making by the stakeholders, *breadth* is the diversity of the stakeholders who are invited to the project, and *scope* refers to stages of the project (Harder, Burford, and Hoover 2013). Regarding depth, they created six categories that show the power relationship with stakeholders. These categories are referred to as denigration, neglect, learning about (acknowledgment), learning from (engagement), learning together (interculturality), and learning as one (full partnership). They portray these categories on their scheme as a scale starting from level -1 to level 4 in respect. For example; in the sense of Arnstein's ladder of participation, manipulation would be equal to level -1 while consultation would be equal to level 1 or co-design methods would be level 4 based on the frameworks of Harder et al. Regarding breadth, they categorize in four points which are decision-makers (leaders), project implementers (staff, managers), project beneficiaries (clients, users) and wider

society. With this categorization, they aim to show how different stakeholders are participating in the process at which level. Lastly, scopes show the critical stages of the project, which they categorized as initiation, planning, implementation, reflection, communication (Harder, Burford, and Hoover 2013). However, for them, exact boundaries of categorization are not essential. They also suggest that Tim Brown's five stages of design thinking could be used instead, which will be used for this study's game project due to the lack of description regarding stages categorized by Harder et al. These stages are Empathize, Define, Ideate, Prototype and Test (Brown 2009). The aim of this dimension is to show how various stakeholders may participate differently in different stages. With this framework, they created a simple schematic for the project where it can be used as a tool to show power relationships on the different stages by different stakeholders.

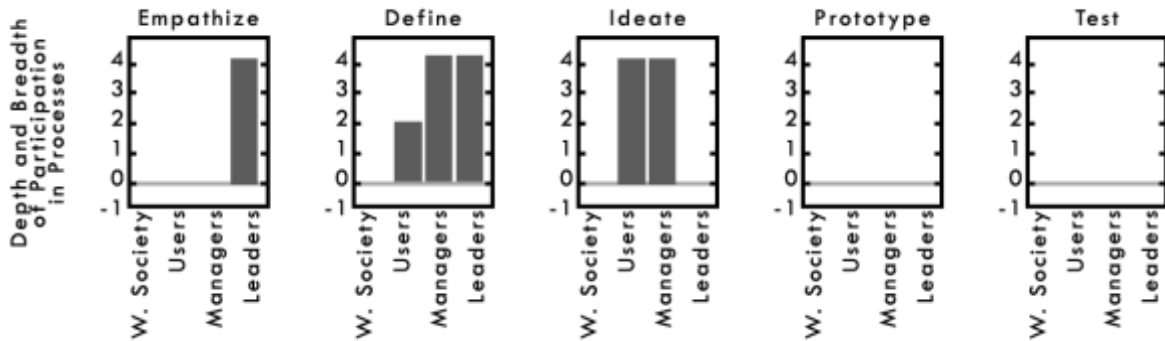


Figure 4: Example of Harder Et al.'s participation framework (Source: Harder, Burford, and Hoover 2013)

Today, within the broad landscape of participation, design-led methods that require *learning as one* with users -based on Harder Et al.'s framework- have been growing. These methods are defined as co-design, which is a "design-led process, involving creative and participatory principles and tools to engage different kinds of people and knowledge in public problem solving"(Blomkamp 2018). It is a communicative design methodology that creates an environment where experts and users can learn, communicate and create with the collective mind. The main purpose of co-design is transferring user's experiences and life-related information to the design process in a systematic way by creating a design with, for, and by the users (Hacıalibeyoğlu 2013; Chapman and Gant 2007). In addition, for Sanoff, user involvement reduces the feeling of anonymity towards space while increasing the sense of community and relations (Sanoff 2000). Hence, it is important to produce a communicative environment and tools for facilitating co-

design. Sanders emphasizes the importance of the way users express themselves and participate in the design process (E. B.-N. Sanders and Jan Stappers 2017). Communication is also a crucial point, considering the critiques towards the participation regarding the *language*, which is mentioned as a critique of participation. Tools and methods become a significant point for creating a new language for co-design, allowing various stakeholders to affect the design process together. Therefore, Sanders argues that new co-design languages will support and facilitate varieties of cross-cultural communication while filling the communication gap between experts and users (E. B.-N. Sanders and Jan Stappers 2017). In this regard, games actually become an important tool for co-design where games' simple language and mechanics will allow jargon-free communication between various stakeholders in addition where simple, playful tools allow different expression of opinions other than verbal expression (Tan 2014).

Co-design also raises the question, if users become the leading creators of the product, what will be the role of a designer, architect, or planner? These methods can be seen as threatening the authority and role of the designers, architects, or planners (Bradley 2015). However, the role of the experts will be essential due to highly developed skills and knowledge of the larger level of scope, emerging technologies, and complexity which stakeholders usually do not have (E. B.-N. Sanders and Jan Stappers 2017). Hence, this knowledge will be used for facilitating and triggering the user's influence towards the projects. Experts will lead and guide the user's creativity with developing new tools and methods while sharing their knowledge with them where it can harness enthusiasm and creativity of users but also trigger a process of broader change and transformation (Mulder and Kun 2019; Finn 2014; E. B.-N. Sanders and Jan Stappers 2017; Bradley 2015). Before entering the "Design with Play and Games" section, it would be adequate to give examples from co-design trends in urban design where infuse of play and playful actions are also visible.

4.3.1 DIY, Urban Hacking and Open-Source Urbanism

The creation of urban space is regarded as a task not only for experts but also inhabitants with the emergence of the co-design trends. Hence methods like do-it-yourself (DIY) urbanism, urban hacking, and open-source urbanism worked as activating inhabitants for being vital actors for shaping and creating the urban space (Hassan and Thibault 2020). These trends are seen as a progressive counteraction towards corporate-led urban development and the commercialization of

urban spaces (Bradley 2015). DIY urbanism has become a popular method in many global cities, especially in America in recent years. DIY urbanism indicates creative, small-scale, unauthorized, functional, and civic-minded contributions or improvements to urban spaces such as flash mobs, graffiti, creating urban furniture or parkour (Douglas 2014). As stated by Mattia Thibault, DIY is a broad term that has been used as a varied wide set of actions which is also called in different terms such as Tactical Urbanism, Guerilla Urbanism, Pop-up Urbanism, among many others (Hassan and Thibault 2020). For Donovan Finn, DIY urbanism can be traced to works of Situationist International as an artistic or social statement (Finn 2014). As mentioned before, Situationist International's concept of work, which is a play, creates situations which disrupts the so-called normal course of events which is imposed by capitalism. Individuals who create situations aim to go beyond what is imposed by conscious choices and do this through playful and creative activities. The example of the connection between Situationist work and DIY urbanism can also be made for similarities between the Situationist concept of *dérive* and urban parkour, which is considered a form of DIY urbanism. DIY urbanism has a similar understanding of creating space, which creates situations that bring different rhythms from the routines imposed in everyday life. But even though DIY urbanism has been shown as a counteraction towards the traditional urban practices, Gordon Douglas's remarks regarding DIY practitioners show different rationality. He says that "many of my interviewees actually expressed a clear disinterest in stirring things up and were resistant to the idea of themselves as radicals"(Douglas 2014, 13). Regarding this, Mattia Thibault argues that a critical component is lacking for DIY urbanism, which can also be seen as the main difference with situationist works where it challenges everyday reality (Thibault 2019c). Nevertheless, as Finn stated, empowering inhabitants to contribute to the design of their living spaces can show positive results from innovative solutions to a more engaged citizenry. Hence, architects and planners should harness that enthusiasm and creativity in an effective way (Finn 2014).

There are also very similar movements to DIY urbanism, like urban hacking and open-source urbanism. Urban hacking can be seen as an overlapping methodology with DIY urbanism. Similar to DIY, urban hacking is a movement that supports the creation of situations. Urban hacking was inspired by the concept of hacking used in the world of computer science. For Martijn de Waal and Michiel de Lange, hacking means "the process of clever or playful appropriation of existing

technologies or infrastructures or bending the logic of a particular system beyond its intended purposes or restrictions to serve one's personal, communal or activism goals" (de Waal and de Lange 2019, 2). Hence, hacking can be seen as not only breaking or finding but also re-structuring and re-purposing the physical and digital space in a playful and creative way. Hacking may represent various meanings in contemporary culture, including associating hackers with criminality and exploiting computer security systems. However, for the urban hacking concepts, it refers to the original meaning of the hacker culture, which is based on the hacker ethics chronicled by Steven Levy (Levy 1986). Key principles of hacker ethics are openness, information sharing, disturbing tools, and cooperation, which are also outlined as key proponents of the open-source movement (Bradley 2015; Mulder and Kun 2019). Hence, it can be said that one other movement affected by hacker culture is open-source urbanism. While the open-source movement is mostly associated with software systems, which defend free information and systems where it can be viewed, changed, and shared by people, open-source urbanism enlarges this movement from the digital realm to the urban realm. Hence, like the open-software systems, urban commons should be collaboratively produced by the inhabitants with the shared knowledge and tools. In this context, urban commons refer to urban spaces which are not primarily defined by their formal ownership but how inhabitants use them collectively (Bradley 2015). Unlike DIY urbanism and urban hacking, open-source urbanism acknowledges various stakeholder's direct and indirect effects and competition on the urban realm and tackles this situation as a crucial problem for producing spaces. Hence, Karin Bradley suggests commons-based peer production in the urban realm, which is based on the contributions of the community, not the notion of the equivalent exchange (Bradley 2015). For her, this way of producing will aim to fulfill the inhabitants' needs and desires directly while self-managed rather than producing profits and owned by private or public entities. Therefore, open-source urbanism cuts various stakeholders' effects into a design based on Harder's participation framework. She outlines five characteristics of open-source urbanism. Firstly, open-source urbanism is based on the contributions of people's skills and time. It is a transparent code where processes, manuals, and design can be accessed, used, and developed digitally or physically. It should be motivated not for profit but to fulfill desires that cause societal change. It should be conducted as a community without following hierarchical structures. Lastly, it should base on ethic sharing, which is a core element of general open-source movements (Bradley 2015).

Even though contemporary co-design methods try to answer various critiques towards the participatory approaches, new questions and critiques are also raised regarding these new methods as the dynamics change in cities. For example, Ann Deslandes argues that, even though DIY urbanism claims spatial justice with civic-minded contributions to urban spaces, it creates cultural capital, which forecloses the possibility of spatial justice for some users who do not possess financial or cultural capital (Deslandes 2013). In addition, she relates to homelessness with DIY urbanism in regard to how they both use marginal urban space while seeking wider distribution of urban resources and shows how creative uses like DIY are encouraged while other uses like homeless squatters are criminalized (Deslandes 2012). In addition, Mattia Thibault state that, in some examples of urban hacking and DIY urbanism, practitioners offer these methods "as solution to forms of informality and marginality such as squatting, graffiti, and vandalism, claiming to have a productive economical value" (Hassan and Thibault 2020). Hence, methods like urban hacking or DIY urbanism may also cause gentrification due to the productive economic value created by the cultural capital, which he connects to the lack of critical dimension of the designs. Similarly, Maros Krivy and Tahl Kaminer argue that anti-statist approaches of some participatory methods that stand against the state or corporate-led urban developments eventually may cause aiding the expansion of the market, which actually contradicts with the rationality of the co-design approaches (Krivý and Kaminer 2013). Although the study acknowledges the critiques towards co-design regarding spatial justice or gentrification, this research does not consider those critics due to resource limitation. Besides, as shown in this study, any form of creative work or method that can produce value may instrumentalize or modify for financial gain, which makes the situation more complex. Because the study was conducted to provide a collaborative design tool, it would be pointless to make any claim due to the study's narrow scope compared to these issues.

It is clear for today that the increasing number of co-design methods illustrates the growing search for the user's involvement in design and planning. On the other hand, these movements also show the increasing gap between designed space to people's desires/needs and how people become distant to actively involved to affect their surroundings. Hence, reactions such as DIY urbanism, urban hacking, or other co-design methods in which inhabitants directly affect the designed space can be perceived as filling the gap between what space is designed for and how users perceive the

space. Regarding this situation, Scott Burnham gives examples from street art as a form of DIY. He states that:

"If we were to consider the dialogue of design in the same way we do the linguistic development of a culture's language, then just as street-level vernacular has innovated and filled in the gaps of a culture's formal language, the street has as well developed its own vernacular to fill the gaps in the city's formal design. This new street-level language of design—non-commissioned, non-invited interventions in the urban landscape—transforms the fixed landscape of the city into a platform for a design dialogue" (Burnham 2010, 137).

This study does not claim that the active involvement of inhabitants is better for the cities or inhabitants knows more than the experts. Furthermore, the study sees cities as a wicked problem that has dynamically changing complex parameters. What this study tries to do is give a possibility to inhabitants to design their own surroundings in a simple way while experts are harnessing the creative power of the individuals. For this study, it is important to bridge the gap between experts and inhabitants for small-scale design decisions while creating a platform that allows them to present conflicting interests and tackle them in a playful manner. The game created in parallel to conducting this study would not necessarily offer a *better* design decision, but it situates aspects like collective desires and interests of inhabitants in concrete neighborhoods with using the as a simple medium for expression and discussion.

4.4 Design with Play and Games

Today it is visible that games and play are infused in most aspects of life, from politics, education, science to warfare. This trend and obsession towards game/play in many forms is also referred to as the *ludification of culture* (Raessens 2012). As mentioned before in this study, games are not a pastime anymore. Games have become a cultural trend that occupies a more central role in everyday life (Thibault 2019b). Hence, it is not surprising to see this trend touched the urban realm in many forms. Mattia Thibault states that:

"The city often becomes a playground, hosting playful activities and behaviors that escape from the places traditionally devoted to them. The very enunciation of these cities – the way we live them, cross them, interact with them – is becoming more and more playful, while extremely serious

urban practices are reformulated or modified in order to follow this cultural change”(Thibault 2019c, 1480).

One of the forms that ludification of culture manifests itself in an urban realm can be seen as urban gamification, which also can be found in DIY Urbanism or Urban Hacking. Similar to gamification used by companies for harnessing the attention of their users, there are also examples of gamification that started to emerge in the urban realm. The series of projects called *Fun Theory* by Volkswagen shows an example of mainstream gamification as it applies ludus to the urban realm. The Fun Theory is a marketing project created by DDB Worldwide Advertising Company for Volkswagen. The aim of the project is, other than the marketing aspect, to change people's behavior for sustainable living through play (Goodvertising 2017). Hence, they created a series of projects such as The Speed Camera Lottery, Bottle Bank Arcade, Piano Staircase, which gamifies the physical space while changing people's behavior for, in their claim, safer, healthier, and sustainable choices. For example, the Speed Camera Lottery aimed at rewarding people who do not break the speed limit by the money accumulated from the fines for those who broke the speed limit law. The Piano Staircase project changes a staircase next to the elevator into a piano, intending to make people use the staircase more than before due to it being a fun factor. The project claimed 66% more people than usual took the stairs with this form of gamification (Kankanhalli et al. 2012). Ironically, while the Fun Project went viral due to it being seen as successfully nudging people's behaviors towards more environmentally friendly choices, later Volkswagen found cheating on their cars' pollution emission test with a defeat device and was accused of greenwashing(Lynes 2015).



Figure 5: Piano stairs in Stockholm (Source: Goodvertising 2017)

Another example of gamification in the urban realm is parkour, especially regarding punk gamification. Parkour is also seen as a form of DIY urbanism (Douglas 2014). Parkour transforms the urban realm into one big playground "where creativity and free-movement are used to re-shape the perception and use of public spaces" (Hassan and Thibault 2020). It creates an alternative and playful way to move in the city other than how the movements in the city are designed for. The use of the city's physical elements other than the behaviors imposed by them can be seen as an action that questions the ideologies that make up the urban space and helps the emergence of different urban space production alternatives. Regarding this, Michael Atkinson states that: "It destabilizes and disrupts technocapitalist meanings of a city's physical and social landscape for its practitioners. Parkour is ultimately a communion with one's habitat, in the goal of exploring how one's body is shaped by the political geography of a late modern city" (Atkinson 2009, 169). More examples can be given regarding the gamification of the urban realm, but the important point here is to remind the two ends of the gamification pole mentioned in this study. What the Fun Theory project does, even though it has positive intentions, applies ludus on the urban realm to exploit people's playfulness towards a dedicated behavior. On the other hand, what parkour does is it applies paidia to the urban realm by the people who practice parkour and turn the city into one big playground without a designed outcome. The study does not try to claim that one form of gamification is better than the other form but tries to point out the critical aspect and underline reason in this regard.

Within the trend of ludification of culture, serious games also found a role in architecture and planning. As mentioned before, serious games are full-blown games that simulate real-world events or processes and tackle them for solving, training, or educating in a playful way (Tan 2014). It has been used in many fields actively, such as education, scientific exploration, health care, defense. One of the great examples of serious games is Foldit. Even though this game is not connected to architecture or planning, it is a significant example that proves serious games' potential. Foldit is an online puzzle game that works on protein folding for solving complex protein-structure prediction problems without needing any expertise from players regarding protein structures. The game creates a three-dimensional simulation of proteins in the form of a puzzle that the player can shape the proteins into the most efficacious configurations for a given function (Kelly and Maddalena 2015). The data produced by the game contributes to a number of scientific publications, in addition to achieving accurate built models (Khatib et al. 2010). In one example, Foldit players helped solve the structure of an enzyme involved in the reproduction of HIV in three weeks which had been worked on for a decade by experts (Cohen 2011; Khatib et al. 2010). One other important aspect of the Foldit is the engagement of the community of players. Foldit players shared knowledge on forms regarding protein structures to get better at solving the puzzles because they were driven by the game and contributed to finding a cure for diseases. Foldit games achieve mass collaboration to effectively work towards a common goal while obtaining information and work from thousands of players. This aspect is also known as crowdsourcing, which is defined by Jeff Howe as: "the act of a company or institution taking a function once performed by employees and outsourcing it to an undefined (and generally large) network of people in the form of an open call" (Howe 2006).

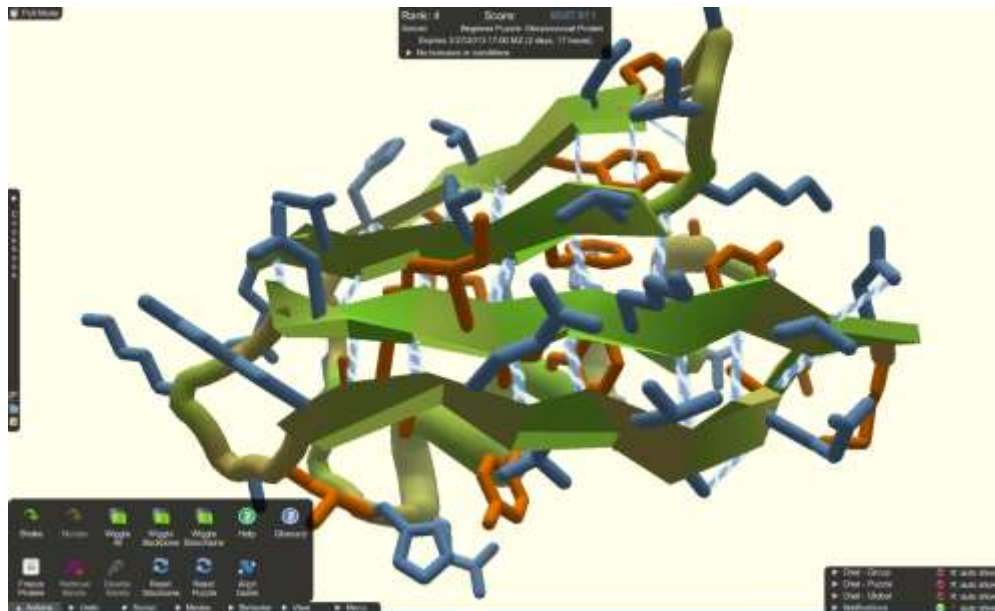


Figure 6: Screenshot of Foldit gameplay from the website fold.it (Source: fold.it)

Mass collaboration is also visible in city-building games. For example, Cities: Skylines is a city-building simulation game that allows players to control and create cities with urban planning related features such as zoning, road placement, public transportation, infrastructure, landscaping, administration. Cities: Skylines is not a serious game; it is a commercially developed video game. Hence the game is not designed prior to creating a solution regarding real-life issues. Nevertheless, thousands of players share knowledge on various platforms such as Reddit, YouTube, Steam Community forms regarding traffic planning, zoning, or urban-related issues they encounter on the game while they are not interested in their everyday life. Interestingly, players try to solve the problems they encounter in the game by using real-life examples and literature⁶. Even in some example's players explain complex issues such as gentrification or power dynamics in the cities while using Cities: Skylines as a sketch tool, even though these aspects were not included in the

⁶ There are many YouTube series in which town planners show non-expert players on the game how to deal with the problems regarding transportation or guide manuals created by the players to show how to create realistic cities in the game while utilizing modern planning theories for traffic planning. Examples can be seen on these links: https://www.youtube.com/watch?v=axgHoE89Z3Y&ab_channel=SAMBUR
<https://steamcommunity.com/sharedfiles/filedetails/?id=475455648>

game mechanics⁷. Also, institutions started to utilize this game for serious design purposes. The game was used for the transportation system being built in Stockholm, Sweden (Beattie 2020). Furthermore, for transportation planning, Cities: Skylines shows potential. Research conducted by Jan Pinos, Vit Vozenilek, and Ondrej Pavlis where they visualize the city of Olomouc (Czech Republic) in Cities: Skylines, found traffic simulation of the game is similar to the real-world situation (Figure 7) (Pinos, Vozenilek, and Pavlis 2020). While a significant number of players were challenged to solve their virtual city's transportation problems for each other, it would be interesting to see how they are solving transportation problems of representation of their cities in Cities: Skylines. Even though Cities: Skylines seems promising, it should not be taken as a perfect replica of an actual city planning process, but it can be seen as a communicative platform that educates players regarding basics, allows them to sketch their desires or a place where to harness players collective creative power. These games are not designed to represent real cities fully. They are mainly designed for entertainment. Hence, most of the aspects in the urban realm that might affect the flow of the game were not added in the game mechanics. In addition, these games are simulations that are adapted mathematical models which cannot solely present dynamically changing complex parameters of cities while reducing it into the quantities (Tan 2014). Even though games like SimCity or Cities: Skylines designed as sandbox games, which does not create explicit goals, they have still certain feedback system in their algorithm which compass the players based on functionalist mental models⁸ created before while the player has despotic control over their creation (Pedercini 2017). Hence these algorithms drive players to design their cities for being car-oriented, increasingly populated, wealthy, and aesthetically pleasing without questioning the underlying meanings.

⁷ Youtube user Donoteat01 uses Cities: Skylines as a tool for illustrating issues such as parking, gentrification, or public housing: https://www.youtube.com/watch?v=0lvUByM-fZk&list=PLwkSQD3vqK1S1NiHIxxF2g_Uy-LbbcR84&ab_channel=donoteat01

⁸ For example, Jay Wright Forrester's concept of system dynamics, which is a mathematical modeling technique to understand complex issues, and the book Urban Dynamics was a significant influence for creating city building games and the algorithm behind it (Pedercini 2017).

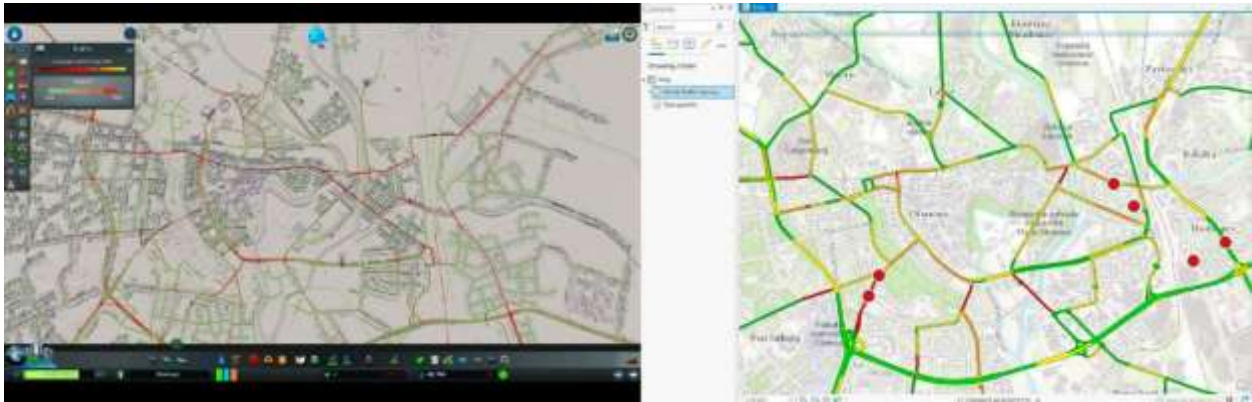


Figure 7: Traffic situation of Cities: Skylines' model of Olomouc (left) and the traffic situation in Olomouc displayed in real (Source: Pinos, Vozenilek, and Pavlis 2020).

One different example of city building games is Block'hood which is developed by architect Jose Sanchez. It is a crowdsourced simulation game where players place designed modules on a rectangular voxel grid and are challenged to maintain an ecological balance as their creation grows (Beattie 2020; Sanchez 2015). Different from Cities: Skylines and SimCity, the game design in abstract form to educate players by allowing them to play with the variables of a system, for them to understand the intricate interdependence of factors involved in city planning (Sanchez 2015). Hence, this game aims to allow people to learn about ecological balance in the urban realm while making it visible and tangible in the game, which was not visible in the player's everyday life. Hamish Beattie states that: "Although Block'hood is mostly abstract and not situated within an existing urban condition it proves the significance of gaming and user participation in education and contemporary urbanism" (Beattie 2020, 123).



Figure 8: Block'hood (Source: Sanchez 2015)

Even though these examples of games are mostly operated as educational tools, there are also games that are used as collaborative tools for architecture and planning. Today games are accepted as a unique medium in a participatory process. While some examples utilize existing games such as *Cities: Skylines* and *Minecraft* for a serious design process, in other examples, architects and planners create their own serious games for the design process. The reason why games are seen as a possible alternative to where traditional participatory approaches are lacking can be seen in the very notion of the games and play. Following the works of Ekim Tan, this study attempts to illustrate why games are applicable within five points (Tan 2014). Firstly, games are great tools for learning, as mentioned before in this research. Games can mimic the actual situation in a more tangible and enjoyable way while players are learning about the situation during the gaming session. In addition, games can be a simulation platform where various players test their ideas while interacting with each other. Hence, games provide safe ground for players and designers to react, test, learn and share knowledge (Tan 2014). Secondly, with the right interface, games can be a great collaborative tool. Games can support different forms of collaboration, such as sharing knowledge, resolving conflicts, re-shaping different interests, collaboratively working towards a common goal (Ampatzidou et al. 2018). Thirdly, games may evolve incrementally. This is also an essential feature of sandbox games. While gaming, players of the game can be authors of their own game adventures (Tan 2014). Players can interact with each other or within the open-ended structure of a game. Hence decisions in the game evolve from these interactions with each other

or the environment. New goals, challenges, and conflicts that the designer not imposed may emerge due to the players' interactions. Fourthly, games are unique communication tools. Games simplify situations that are intangible or impossible to react to in real life by players. Due to the games' simplified environment, players may take different roles, react towards simulated situations while learning about them, or express their ideas in various forms other than just a verbal expression. Lastly, games have structural components which help to mimic real situations while creating a system. These components can be seen as mechanics, conditions, or rules of the game, which applies to all players. Hence player's actions take place inside of the mechanics of a game based (Tan 2014). However, it is important to mention all of the points are factors that are highly dependent on the designer of the game. For example, games can be used for propaganda or a manipulative but entertaining platform that teaches and drives players for the designed goals. Games can be very competitive, and the flow of the game can be highly dependent on the extrinsic motivation factors, which may reduce the player's interest in the gaming session itself while focusing more on end results. Therefore it is crucial to understand the underlying reason behind any serious game.

One of the examples regarding the use of games as a collaborative design and decision-making platform would be Ekim Tan's *Play the City* method, which has been developing and experimenting since 2008(Tan 2014). This method uses case-specifically designed serious games as a problem-solving method for complex urban problems while played by actual stakeholders (Tan 2020). The method translates problematized urban situations into game rules and mechanics, which helps participants from different disciplines and backgrounds to contribute and discuss. Unlike the games like *Cities: Skylines* or *Sim: City*, this method does not try to model the stakeholders' unpredictability through the algorithms. Instead, it uses stakeholders as players of the game and allows conflicts between the different interests of the stakeholders in the gaming arena. Hence, feedback and decisions in the game primarily emerged from these interactions. With this, what the city gaming method tries to aim is to trigger the collective intelligence of people while facilitating collaborative outcomes(Tan 2014). Since 2008, this method has been used in 20 cities in various projects such as regeneration of a train station node, smart grid adoption of local communities, and renewal of an existing neighborhood (Tan 2014).

Another example regarding the use of games as a collaborative design tool would be *Block by Block* projects in collaboration with Mojang Studios, Microsoft, and UN-habitat (Bashandy 2020). Block by Block projects use Minecraft as a tool for public space design processes. For Block by Block, because of Minecraft's simplified sandbox structure, it provides a unique medium where people can easily visualize and collaborate towards their interests and ideas without depending on any expertise to communicate regarding architectural visions. Hence, the project aims to provide a voice for many inhabitants of their neighborhoods. Since its founding in 2012, Block by Block has grown substantially and claimed to be a successful method for empowering inhabitants to participate regarding their vision while using virtual blocks of Minecraft as a simple language (Snelling 2020). Even though Block by Block projects mostly presented to be as collaborative work for all phases of the urban design processes, based on research of the Hamza Bashandy on three Block by Block projects showed that full participation (which is level 4 based on Harder Et al.'s framework) is only visible on ideating phase (Figure 9). He argues that even though participation is the main part of the projects, the final version of Block by Block projects are often affected by city councils, architects, and authorities (Bashandy 2020). As an example, he shows the difference between the final model of the Block by Block project in Kosovo, which is created by participants in Minecraft, with the final product plan that he created based on the Google Earth imagery. Nerveless, based on the research conducted by UN-Habitat, the method claimed to have the potential to increase inhabitant's "interest and engagement in urban planning and design, promote creativity, innovation, and visual learning, help encourage dialogue between different groups and opinions and contribute to the development of important skills such as collaboration, public speaking and negotiation"(UN-Habitat 2015, 17). Also, the participants' positive reaction towards the projects shows how this method promotes the senses of ownership, community, and belonging regarding their surroundings while using the simple language of Minecraft, which is documented in the film *Gaming the Real World* (2016).

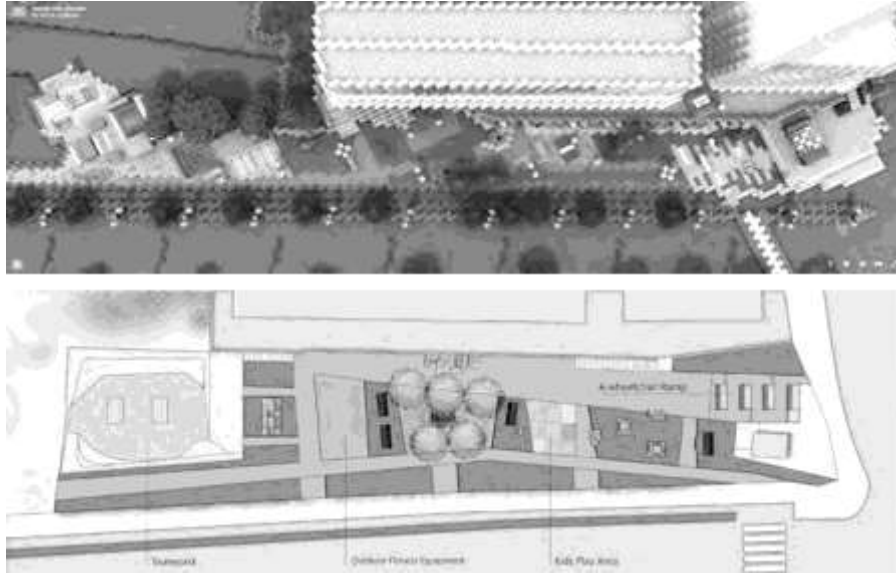


Figure 9: Project created by participants (above) and final plan illustrated by Hamza Bashandy (Source: Bashandy 2020).

The study aligns with the scholars such as Ekim Tan, Mattia Thibault, Cristina Ampatzidou, and Jose Sanchez, who illustrates the values and benefits of the game for learning, designing, and experiencing the urban realm (Tan 2020; Hassan and Thibault 2020; Ampatzidou et al. 2018; Sanchez 2015). The study sees games as a potential answer to the critiques of participation. Games provide a unique and playful medium where can be used as an alternative tool for participatory approaches. Game's simple language and mechanics will allow jargon-free communication between various participants in addition to where simple, playful tools allow different expressions of opinions (Tan 2014). Games may illustrate complex urban issues more tangibly. Games provide a safe and playful game-arena for replicating the dynamics and conflicts while tackling them. Games create an environment for learning, interacting, and creating while making the processes easier to attend, digest, and test (Ampatzidou et al. 2018). However, as it mentioned before in this study, the potential of games does not mean that games are the silver bullets that provide all the answers regarding urban-related issues. Games should be seen as a complex tool that is highly dependent on the designers of the game. It can be a manipulative tool. Games can be used for filling the agenda while directing participants towards a decided agenda. Games can never hold the dynamically changing complex parameters of cities. In addition, the entertaining and simplified

mechanics of a game may cause overlooking the real urban issues. Lastly, games can be just inefficient designs that are not playable.

5. Place! Steal! Design! An Experimental Game Project

In parallel with reading into the topic and framing the theories, the game titled *Place! Steal! Design!*⁹ was created. The game's name comes from the actions that participants will play during the game. The game aims to be an alternative tool for participatory approaches. It aims to create a playful and engaging activity for the users where they can unlock difficult conversations based on the knowledge created during this research. The game provides the users with a communicative and simple platform to discuss and design their surroundings in a designated location together without any jargon or expertise. After all, these spaces are perceived and used every day by users. The game aims to be a medium of expression for different users regarding their immediate neighbourhood, allowing conflict and expression of different values. With this game, we are aiming to test if there is a possibility to create a safe ground for participants and ease the participation process from its historical, formal, and locally perceived contradictions. Through this game project, we hope to unfold different possible conflicts as an important role, a driving force regarding the flow of the game, design process, and collaboration.

Throughout this study, we see the critiques of participation, how games may answer these critiques and the different effects of the game and gamification. Games can be an empowering medium for participants where they can play, decide, express, or learn regarding urban-related situations. However, games also can be a manipulative tool where they can be used for directing participants towards a predetermined goal. The study already attempted to connect different effects of the game and gamification with the concepts of *paidia* and *ludus*. According to the scope established during this study, the application of *ludus* creates actions that are structured, disciplinary, and nudging, while the application of *paidia* creates free, open-ended, and experimental. For this game to be a tool for the co-design processes, the game was designed as close to as *paidia*. After all, co-design is about giving the participants control regarding decision-making processes. Hence, directing the users, manipulating their actions through the game would be a tokenistic approach for the participatory process. The game will try to allow participants to create design concepts, harness the enthusiasm and creativity of users regarding their surroundings without setting any goals,

⁹ The game can be accessed via the link:

<https://miro.com/welcomeonboard/fFCQZgukku6fFYpgfxTC2r6caxfbgvX7FG4hDAOR3LWspWvX6prv5Kr8i2Cd bmzA>

directly governing them, limiting their creativity, or directing them to a predetermined outcome. It aims to work as bridging the gap between experts and users. It aspires to encourage the dialogue between different participants through the mechanics of the game. In addition, it intends to also be a learning process for the experts where they can easily observe the user's interest regarding space in various forms throughout the game and different effects of the designed game mechanics.

5.1 Placing the Game on the Participatory Framework

As shown in the study, each game or gamification can be created for different purposes. This game will be a tool for co-design processes. Therefore, it can be categorized as Serious Game¹⁰. Each participant will be the main actors during the gaming session. However, the game is not designed to correspond to each design phase, such as prototyping, testing, or modelling. Hence actions taken by the participants during the gaming session will not be finalized as design solutions. Instead, these actions and the game's outcome were planned to be a basis for the design concept. After all, the game will be the point where one can start to generate ideas regarding the design of a public location, where the participants can play, discuss and brainstorm. This phase is also known as the *fuzzy-front-end*, *ideate* or *pre-design* (E. B.-N. Sanders and Jan Stappers 2017; Brown 2009). It is an open-ended phase more about brainstorming and exploring than looking into the feasibility or cost of any design, which can be an ideal phase for harnessing the collective creativity of the users. Based on Harder Et al.'s framework (Harder, Burford, and Hoover 2013) used in this study, the project will only be conducted for the Ideate phase of the design process, and it will require *learning as one* with users (Figure 10). Even though the project is not created for the other phases of a design, it is recommended to use co-design methods for further phases to keep the meaning of co-creating with users in the ideation phase. In addition, also based on Sander's map of design research (L. Sanders 2008), the project can be placed on top of generative tools due to being a design-led game process for the users where they can constantly generate ideas in various forms (Figure 10).

¹⁰ In some examples, games that are used for participatory design purposes are also called *Design Games* (Vaajakallio and Mattelmäki 2014), which can be seen as a subgenre of Serious Games due to the purpose of creating a practical outcome other than entertainment..

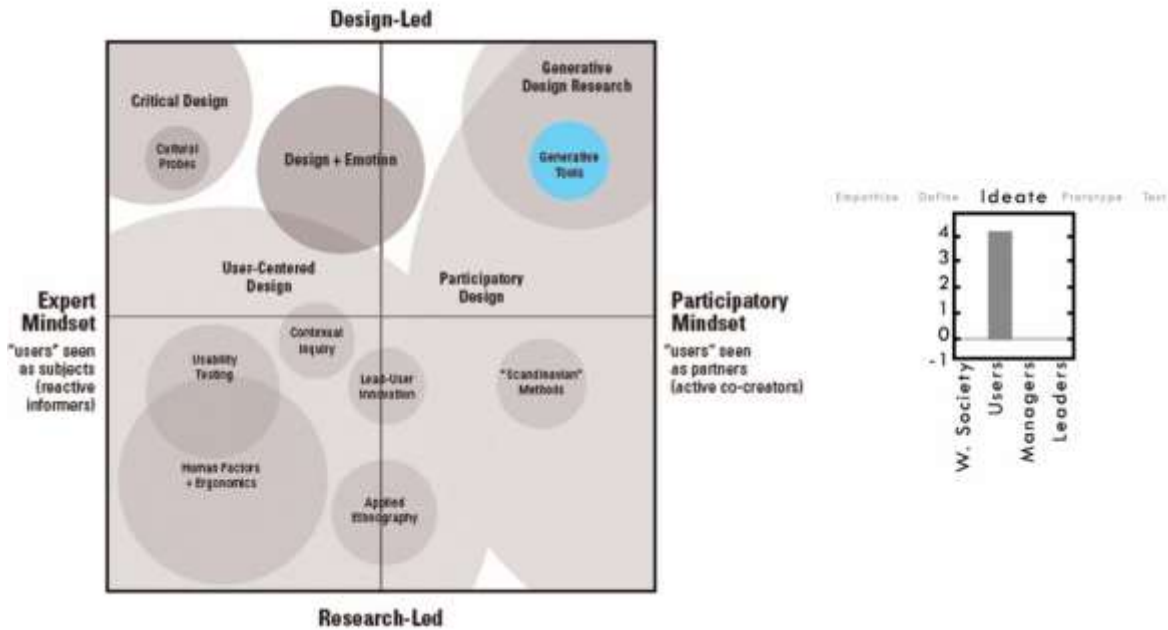


Figure 10: Positioning the game based on Harder Et al.'s framework (Harder, Burford, and Hoover 2013) and Sander's map of design research (Source: L. Sanders 2008)

5.2 Components of the Game

The game is designed for small-scale urban design projects. It is an adjustable game based on the open space where the planned project will be conducted. E.g it can be a small neighbourhood park, a section of a street, or any open plot of land that is accessible and used by participants in their everyday life. Because the game aims to empower users to be a part of the decision-making process for their surroundings, the connection between the participants and the space is highly important. Participants should be the everyday users of land and familiar with the surroundings. After all, each user has their own unique opinions regarding their surroundings. The game works as a medium for the users where they can share their ideas, interests, opinions, discuss each other and create a common design concept. In this case, play activity should be a form of expression for the users. The game does not try to create a final design solution but tries to harness users' desires and creativity. Therefore, to make the expression process as easy as possible, readable, and tangible for all participants, the game uses three main components: *map*, *space*, and *indicators* (Figure 11).

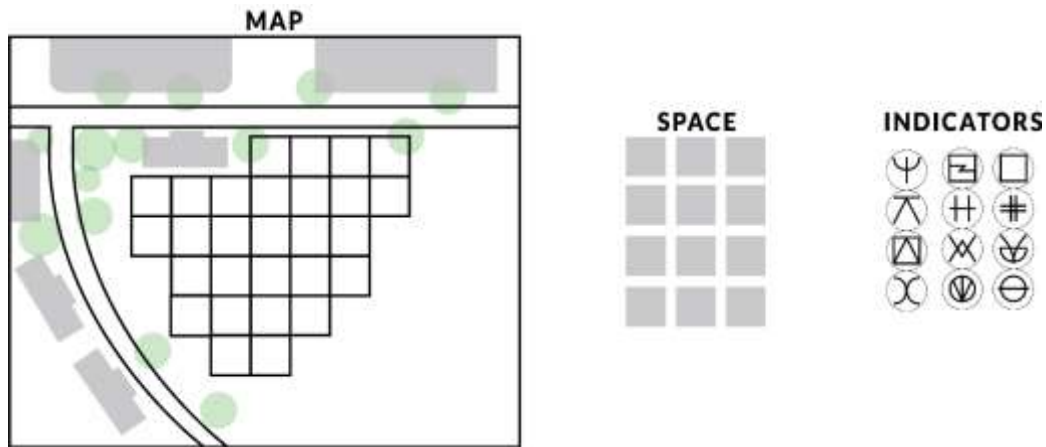


Figure 11: Three main components of the game

Map: Map will be a simplified and two-dimensional representation of the designated area. This map-grid section will work as an empty canvas for players where they can locate their ideas and also play with them. The map will help the players to understand what are the surroundings of the designated area, what is already in the design area, the scale of their ideas, location and relation of their wishes and the context. The designed area will be in a grid form on the map by indicating the limit of the playable area. In addition, it will simplify the process of placing ideas while arranging the other components in common form for all the players.

Space: This component will show the limited area that players can play with it. Each player will have a limited space based on the squares on the map created by the grid form. For example, if ten players play the game and grid form on the map creates 300 squares, each player will have 30 squares which the game calls space. Players will have an individual inventory within limited space, where they can place and indicate their chosen parts on the map's grid area. Players can also change the colour of the spaces on the map to show what type of ground they want to see in the area. Players can recommend types of grounds such as concrete, grass, rubber etc. As the game design is for small-scale urban design projects, each space will cover 2-to-10-meter squares based on the scale of a designed area.

Indicators: Indicators represents the functions that players want to see in their chosen location. When a player places their space, they will also put an indicator to show what they want to see in this area. Indicators will be the symbols and each symbol represents a function created by the

player. For the symbols, glyphs from the book called *bolo 'bolo* by Hans Widmer (Widmer 1983) are used as a small *easter egg*¹¹.

As it is shown in this study before, the application of ludus and paidia may create a different impact on the users. Based on the applications, player activities become free, open-ended, experimental within paidia or structured, disciplinary, nudging within ludus. These differences are essential for this test game as it aims not to direct the users to a specific outcome. In contrast, the motivation of the experiment is to allow the users to design and decide a collective outcome. In this game, the role of the participants is to become the co-designer of the area. Hence one of the agendas of *Place! Steal! Design!* is to offer the effect of *paidia* without losing a game form. do not want to give participants a designed goal during this project, decide winner or loser, or even give predetermined feedback that may cause participants to direct their actions. Order to achieve this sandbox games such as Minecraft and a software toy known as *r/place* become a major inspiration for this game. The study already mentioned Minecraft, but before explaining the game mechanics in detail, it is also essential to explain what *r/place* is and how it became an inspiration for this game.

5.2.1 *r/place*

For every April Fool's Day, social networking site *Reddit* conducts a unique event/joke on the website each year. In 2017, the event was an experiment called *Place*, which was located in subreddit *r/place*¹² lasted for 72 hours. The experiment started as a blank canvas containing 1000x1000 pixel squares where registered users could change the colour of a single pixel from 16 colour palettes every five to twenty minutes¹³. *Reddit* announced *Place* as "There is an empty canvas. You may place a tile upon it, but you must wait to place another. Individually you can create something. Together you can create something more" (Cuthbertson 2017). Without guidance other than the announcement, users started to put their pixels on the canvas. Hence, predictably at the beginning of the experiment, every action was chaotic. Most people were testing the system, trying to learn how *Place* works, and further, they tried to create their individual ideas (Figure 12).

¹¹ Easter eggs are the hidden features that are used in games.

¹² For more information, please visit <https://www.reddit.com/r/place/>

¹³ Time limitation changed during the experiment, but mostly, it was 5 minutes.

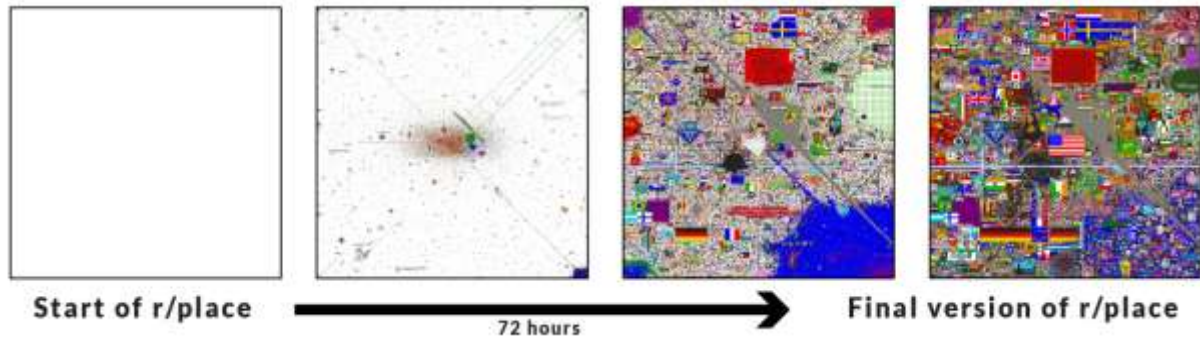


Figure 12: Screenshots of r/place (Source: reddit.com/r/place)

The Place was an elementary software toy. The only action players can do is simply colour one pixel in every five minutes. However, even the simplest pixel art, for example, a simple heart figure, will contain nearly forty pixels. Hence, putting a simple heart on the canvas of the Place by one user will take nearly three hours if there was no other pixel placed on top of it by other players. However, considering over one million users edited the limited canvas, it becomes unachievable to create an individual piece by one user. Therefore, the limitation of space and time compared to the number of users forced users to collaborate and made them plan their actions during this event. Users started to collectively draw figures on the canvas, such as country flags, game characters, basketball logos, music mascots, non-hateful ideological symbols, or even recreations of Mona Lisa and The Starry Night. Factions have also emerged for different purposes and designs, such as *Rainbow Road*, which is dedicated to decorating all empty spaces on canvas into a rainbow pattern, or *The Black Void*, which is dedicated to filling the canvas to black to emerge new art forms constantly while covering the old ones. During 72 hours, many groups emerged to create and preserve the pieces. Nevertheless, also, conflicting interests of the groups cause alliances or wars on the canvas. These wars were evident on the country flags. For example, a war happened between the German subreddit and French subreddit groups (Figure 13). The flag of Germany and the Flag of France were created near each other. However German flag continued to expand and eventually started a war with the French flag. After the German flag covered the French flag, French subreddit users started to move towards the north to avoid further invasion. Later, both sides decided to create European Union's Flag on the disputed territory and make peace (Cuthbertson 2017). Similar humour can be seen on many pieces, where it started with battle and ended with collaborative artwork on the borders.



Figure 13: Screenshots of Germany and France flag war on r/place (Source: reddit.com/r/place)

There are many unique stories that can be told regarding this 72-hour long experiment. Nevertheless, what was interesting for this study was; r/place had no goals, no achievements, no prize, or no tasks conducted by the creators. It was a very simple project with 16 colours, a massive empty canvas, and a time limit. Even though with simplicity, it was played by thousands of users for three days collectively. It was an open space shaped by users, generating limitless unpredictable outcomes. Users were driven by limits of the r/place, collective desires, goals, and conflicts, which mostly emerged during the experiment by the users. It is an excellent example of the collective creative power that emerged from paidia, which makes the r/place highly influential for the Place! Steal! Design! project. The idea behind the grid forms on the Map and Space components that are used in the Place! Steal! Design! was influenced by the r/place. Nevertheless, it is crucial to explain how the game mechanics in Place! Steal! Design! will collaborate with components to allow users to design, decide and negotiate during the gaming session.

5.3 Game Mechanics

Even though the game tries to make play actions as close to paidia as possible, there are certain mechanics on the game that govern and guide the participants actions. The game mechanics derived from the theoretical reading conducted during this research. These mechanics are applied

not for creating a predetermined outcome but to ensure the flow of the game, make it simpler and tangible for participants and prevent the actions that may make the game unplayable.

The game is turn-based. Each turn players can take one action at time. These actions can be, placing a space on the map, changing the locations of spaces on the map, stealing spaces from the map or skipping their turns if they do not want to take any actions. Actions and their reasons in details can be listed as follows:

- Players can place spaces as much as their inventory allows with only one indication.
- Multiple spaces that are played during one turn by players should be connected spaces on map.
- Players can change the location of the space that is played by another player.
- Players can steal defined space played by another player in one turn.
- Players can place the same space on top of each other.
- If other players allow, the player can put a new function to the space played by other players. If the player does not allow it, players can always steal the space.
- If a player has more space than their inventory allows, the player must play.
- Players can pass their turn. The game finishes when everybody passes or after 50 turns.

Why is it turn-based? The game should allow people to see what other players are doing. With that, they can observe the process easily and strategize their moves based on the others.

Why does it have space? Because players need to create value for their wishes. Players should calculate their actions during the game. The game anticipates that "limited space to play" helps to make players decide the optimum design for space also accepted by others. This will affect the player to put the space as whatever they want and where they want to find midway with others.

The reason behind "the one action" is similar to the reason behind why the game is turn-based. Players should see that their actions to the space have certain feedback from other players. Based on the feedback, they can change their actions or collaborate with others towards the same action.

Why does it allow players to put only one type of space in one turn? Because, in the end, the aim of the game is to have a collaborative experience. Players should not put every idea at one time and wait for the others to react. This should be a process with the understanding of each other

players' actions. Hence, they can collaborate. It is expected to be chaotic for the beginning turns, but similar to r/place, players will decide a common ground with the feedback and discussion. Also, a limited amount of space may limit the players' visions' visibility on the board. Therefore, allowing players' vision to be visible and also creating a collaborative effort, the game limits as one type of space for one action.

Why does the game allow changing the location of spaces put by other players? First of all, the project wanted to give freedom to players as much as it can. As long as the players' methods will not break the game or become competitive. Hence, affecting the location of the decisions also included. People may like the idea of other players' spaces, but it might also be a problematic location or location that might affect their vision. Therefore, to allow discussion and certain freedom, the game has this mechanic.

Why does the game allow stealing space? This is one of the crucial aspects of the game. Every person has their own vision regarding their neighborhood, which naturally may create conflict between participants. The game predicts that stealing will allow players to carry the conflict to the playground. Even though there might be no stealing during the game, the project expects it is going to affect the way people play. The stealing mechanic gives two options to the player. The first one is creating your place and trying to defend it from others. Second is to communicate with players or expect them to keep the space on the board. When players place their space on the board, they put their "valuable" space idea for everyone to share. With stealing, it means that "when you place it, it is not yours anymore." Hence, the game hopes that it will create something similar to a potlatch where players place their *valuable property* for *common use*. Also, conflicts created by the stealing may cause "alliances" between other players, which will make collaboration much more effective. Additionally, stealing is going to open new empty spaces, which will be open to new ideas during the game. Finally, stealing will be a crucial dynamic in the game regarding balance and collaboration.

Why does the game allow people to place the same space on top of each other? This is an important defence mechanic in the game towards the stealing aspect, and it will also show what players value the most. For example, if seven players support the one activity, one player should not have the same power to destroy it. When players place their space on top of each other, stealing them by a lower number of players would not make sense. But also defending certain spaces will allow other

players to place their spaces in other areas on the playground. Hence, this mechanic may also show where and what players valued the most and least.

Why does the game allow adding a new function to the same space? Spaces do not have to have only one function. If other players come up with additional ideas, they can collaborate with the first player who played the space. Square spaces on the game arena will cover the 2 to 10 square meters area in reality. Therefore mostly, there will be enough space to add a function or even enough space to make adjustments later by the architect. In the end, the project's aim is to create a conceptual framework for architects regarding the area.

Why is there a limit for the maximum space a player can have? The game wants players not to create a monopoly but play the game together. Stealing all the spaces played by other players will break the game, engagement of the players, and everything about the game. To prevent this, for now, this limitation can be the best solution.

Why does the game finish after 50 turns or when everybody passes their turn? There is nothing to play when everybody passes. This will be the main visioned end for the game. But also, the game was designed closer to paidia. Hence, it does not create any direction towards achieving the goal. Therefore, for the sake of the project and creating an urge to play the game 50 turns for each player is enough.

For this game the main driving force for the players will be the interactions with each other. As we mentioned before, during games like SimCity or Cities: Skylines, feedback is the critical driving force for players to create. For example, when a player creates a city on Cities: Skylines, traffic becomes a big problem. The game's algorithm shows that the traffic design, which players created, is problematic due to traffic jams. This feedback from the game causes players to focus on solving the traffic issues in their city. Hence, players look for alternative solutions or new traffic structures. However, the situation here gives feedback by the algorithm of the game. Hence, the mathematics under the game decide what good or bad traffic design is. Therefore, this feedback-system sets the requirements for a *good* design for traffic which is essentially decided by the algorithm. For Place! Steal! Design! there is no algorithm. All feedback comes from other players. Hence it illustrates a different picture compared to games like Cities: Skylines, where decisions are not shaped by an algorithm but other people's interests and needs. Therefore, what is

appropriated or not is not created by the game designer but players themselves. Hence the driving force for the players in this game becomes the discussions and conflicts with each other, which is produced during the gaming session.

5.4 Setup of the Game

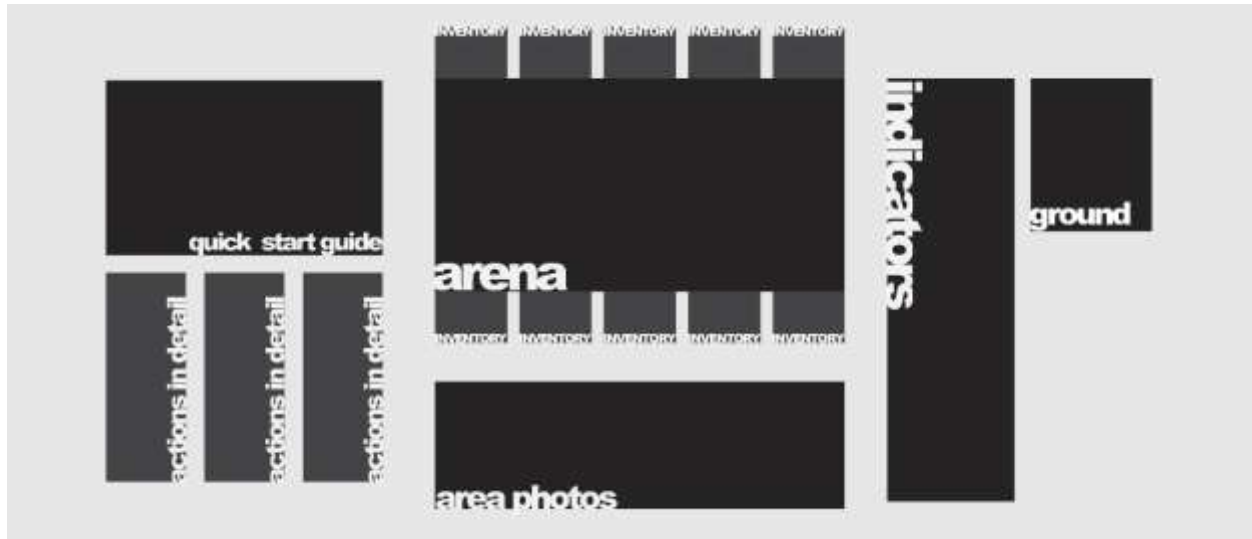


Figure 14: Game map of Place! Steal! Design!

The game was created on an online collaboration platform called Miro. As mentioned before, the game will be adjustable based on the open space where the planned project will conduct¹⁴. Therefore, a common template was created to be used for the gaming session. Template of the game includes user guide, quick start guide, indicators, inventory, spaces, and legend for spaces and indicators (Figure 14). Before starting the game, a simplified and grid-formed map of the designated area should be created and placed on the template. In addition, photos and their locations also should be added on the map to help participants to visualize the location (Figure 15). The game designer should ensure that spaces on participants' inventory should be equal, and they should be the same number as the squares on the map in total. Before starting the game, participants also put their names on the inventories. Miro also allows voice chat and video calls for participants.

¹⁴ The game can be accessed via the link:

<https://miro.com/welcomeonboard/fFCQZgukku6fFYpgfxTC2r6caxfbgvX7FG4hDAOR3LWspWvX6prv5Kr8i2Cd bmzA>

However, participants may want to choose different platforms for verbal communication, which will not affect the game.

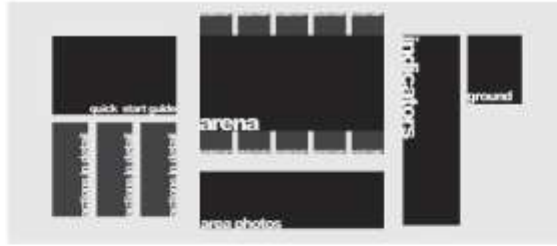


Figure 15: Screenshot of Inventory, Map, Indicators and Ground legend of the game before setup

PLACE | STEAL | DESIGN

Players: 6 to 10

The game aims to create a playful activity for you, as users, to discuss and design your public spaces. After all, you use and perceive these spaces nearly every day. What would you like to see in those spaces? What would you keep, or what would you change? What additions to these spaces make it better for you or your community? This game will be the platform for you to put your ideas where everyone sees and reacts.



SETUP

- 1- Choose the location where you want to be designed.
- 2- Create the map in grid form of the area and place it on the indicated location on the gameboard.
- 3- Each square should cover: max 10 m x 2 square meter, depending on the map.
- 4- Ensure each player has the same amount of space, which should be equal to the number of squares in the design area.
- 5- Ensure that players' spaces have the same tag with players' numbers, which will be changed based on how they play.
- 6- Add pictures of the area for players to show the location.
- 7- Each player should put their name on the top of their individual area shown on the game board.



HOW TO PLAY

The game will be turn-based. It will finish after 50 turns, or every player passes the game. Your turn begins as soon as the previous player's turn ends. You can do one of the actions below.

Place: Place your space on the map and put indicators on top of it.

Changer: Change the locations of spaces.

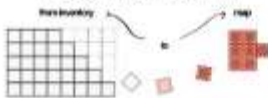
Steal: Steal spaces on the map.

Pass: Pass your turn if you don't want to do any of the actions above.



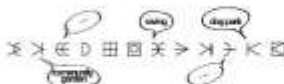
PLACE

You can place your space on any empty part of the map as much as you want with only one type indication. Please group your spaces when you place them on the map. (C)+I+G



Winch - Select - Select Multiple
Ctrl - G - Group

When you put your indicator, please choose one of the symbols that are shown on the game and copy it on top of your space. Please, explain what the indication is for. It can be a bench, tree, container cafe, stairs, basketball court, or anything that you think will be good for the area.



Alt - Drag - Duplicate

When you place your space, please change the colour of the space based on the legend to show which type of ground you want.



If you want to put a second indicator on your space or a second space with a different indicator, you should wait for your next turn. Remember, when you put your space and indicator on the empty game area, you are changing the existing space.



CHANGE

You can change any location of the space that is played by another player.



If other player allows (the original player who played the space), you can put a new function to the space played by other players. You can only add new functions to the played space by adding space and indicators on top of it together. If the player does not allow it, you can always steal the space and create your own.

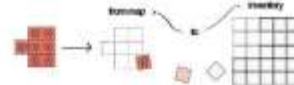


You can also place the same space on top of each other (Please remember to use the same colour)



STEAL

You can steal one grouped space on the map per turn. Stolen spaces become your own spaces; you can play them as you want. Please ungroup your spaces when you place them on your inventory. (Ctrl)+Shift+G



Ctrl - Shift - G - Ungroup

When you steal a space, move to spaces to your inventory. Change the colour to white and change the tag of the space to your tag.



Color Change Tag Change

You are allowed to steal spaces played on one turn by one player. Tag and indication will help to understand which space played on one turn by one player. If you want to steal more, you should wait for your next turn. If you have more space than the beginning of the game, you have to play.



Figure 16: Screenshot of Quick Start Guide and Actions in Detail part of the game

5.5 Executing the Experiment

The test was conducted on 25.04.2021. For testing, the selected location was the open plot in front of Eesti Kunstiakadeemia's (EKA) main entrance between the tram line and Põhja Puiestee street. This area allowed us to facilitate the process of finding participants for the game. Photos of the area were taken, the game map was designed, and the setup was prepared for the gaming session before testing the game (Figure 17). The testing session was not conducted for creating conceptual design work. The game is tested to understand the game's playability, how mechanics affect the users, how mechanics of the game allow users to collaborate or clash, and how collective creative power will emerge during the game. The testing session was also important to see the game's potential and how it can be developed further.

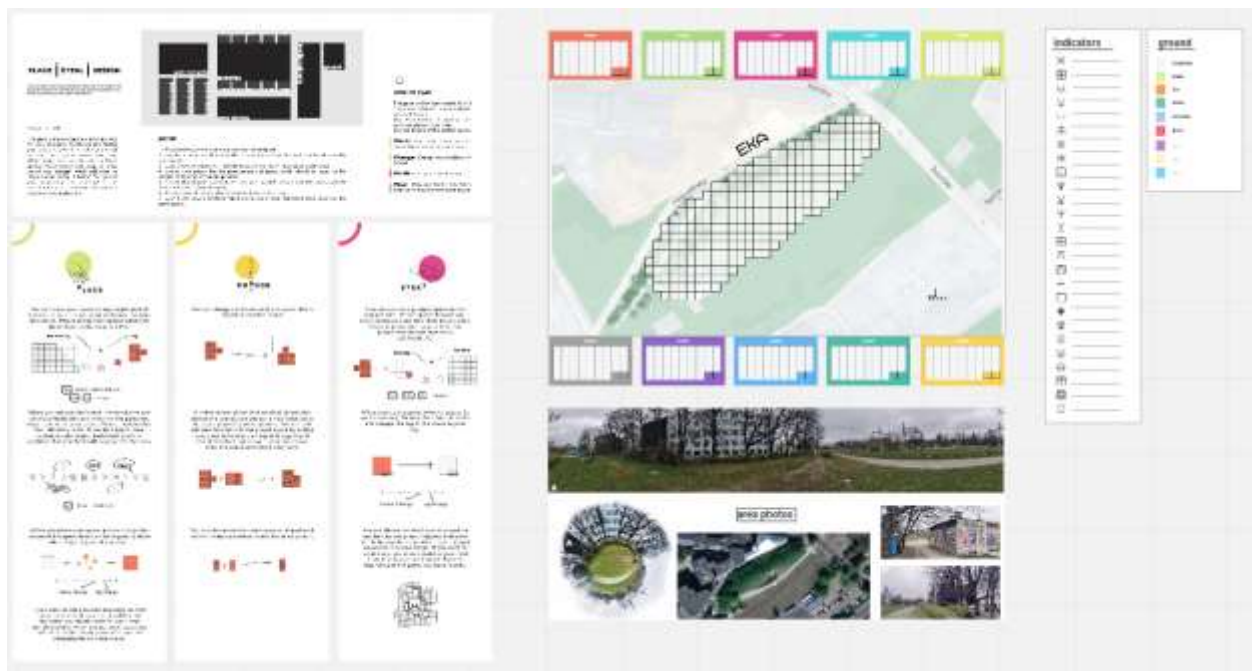


Figure 17: Place! Steal! Design! setup for testing. Screenshoted from Miro

The testing session was conducted with six participants from the students of EKA for two hours. Testers are randomly selected young-adult students from different fields of studies. During the testing session, Google Meet was also used as a verbal communication platform. Before starting to play the game, participants were explained the aim of the game, where they are going to design, and how to play the game. A small spot outside of the game map given to participants to learn the

tools regarding changing colour, moving objects, and grouping spaces can be used. They were informed that the game is originally designed for lasting 50 turns, but due to the participants' individual time limitation, this gaming session took 1 hour without explanation of the game and discussion, and this version will be worked as a prototype of the game. After teaching how to play, participants started to play. During the gaming session, the role of the facilitator is ensuring the flow of the game while helping the players regarding the gaming process. Even though the players explained the mechanics, there is a learning process. Players need time to get used to the mechanics like every game. Therefore, the facilitator's role is answering questions regarding how to use mechanics, what they are allowed to do, helping them while they are doing their actions, and organizing the game board during the play session based on participants' actions. However, this role should keep the players inside the frame created by game mechanics, not directing the players or affecting the players' actions on the gaming session. Therefore, we as a facilitator should prevent the actions of the players that may deliberately break the realm of play¹⁵, not the actions that may bend the rules or use them in unforeseen ways. In fact, the players' actions that bend the rules or use them for unforeseen purposes might be highly beneficial to see problems or effects of the mechanics and how to develop the game further.

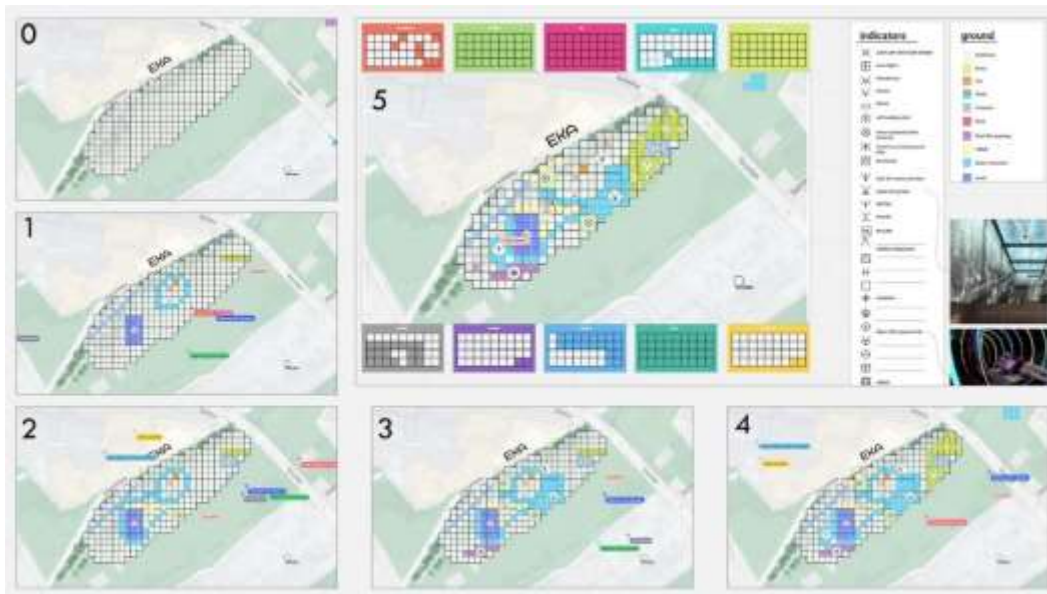


Figure 18: Screenshots taken throughout the game.

¹⁵ Huizinga also defines players that deliberately break the game as spoilsports.

Players quickly learned the game mechanics and started to present their ideas, discuss and design on the gaming platform. Beginning of the game, players needed technical help for doing their actions and asked questions to understand/remember what they are allowed to do during the game. After one turn, players quickly adapted and played the game without needing any help other than making progress faster (Figure 18). Each player started with placing their own individual idea on the map (Table 1). As the game continued while some players focused on their first idea and tried to expand it on the map, others' actions were shaped drastically. Even though there was no introduction, each player gave the reasoning of their actions while playing.

| Participant/Turn | 1 st Turn | 2 nd Turn | 3 rd Turn | 4 th Turn | 5 th Turn |
|------------------|-----------------------------|-------------------------------------|--|--|----------------------------------|
| Participant A | Little Café / Dirt / 2 (P) | Sauna/ Wood/ 1 (P) | Desk for water activities / Stone / 1 (P) | Continuum of Exhibition Area/ Water(mix with concrete) / 7 (P) | Giant pillow / existing/ 1 (P) |
| Participant B | Neon lights / Grass / 5 (P) | Soft Seating Units/ Rubber/ 13 (P) | - / Water / 12 (S) | Neon lights / Grass / 30 (P) | Soft Seating Units/ Grass/ 7 (P) |
| Participant C | Screen/ Undefined/ 3 (P) | Trees with Hammocks / Grass / 4 (P) | Trees with Hammocks / Grass / 4 (P) | Drumkit / Grass / 1 (C) | Hamburger stand / Brick / 1 (P) |
| Participant D | Pool / Water/ 15 (P) | Pool / Water/ 19 (P) | Pool / Water/ 8 (P) | - / Grass/ 6 (S) | Jakuzi / Grass / 1 (P) |
| Participant E | Renovate/ Concrete/ 8 (P) | Basketball Court/ Concrete/ 6 (P) | Renovate for exhibition/ Keep the building / 8 (P) | Playground / Grass / 4 (C) | Steal/ Water/ 15 (S) |
| Participant F | Greenhouse/ Wood/ 15 (P) | Underground Club/ Concrete/ 1 (P) | Underground club + Water connection / Water / 22 (P) | Slide / Rubber / 4 (P) | Pool / Water/ 4 (P) |

Table 1: Players actions for each turn as Indicator / Ground Type / Number of Spaces / Actions: Place(P) Steal (S) Change (C)

5.5.1 Observations of the Gaming Session

During the gaming session, collaboration and conflicts also become highly visible. It can be observed based on which spaces/function players are stealing, how players change their focus points regarding where they play their spaces, and how they are creating a correlating space to the already created areas on previous turns. Based on players' actions, two main groups emerged during the game with different agendas and motivations. While one group focused on the existing space, renovating some areas, using the portion of the space for exhibition and leisure, other group placed their individual ideas with the humorous motivation where some of the projects were practically irrational. The action that facilitates the emergence of two groups might be connected with the first action of Participant D, which was surrounding the café area with water. Participants react differently towards the humorous act of Participant D. Participants B and E steals the water area and raise their opposition, while participants A and F collaborated with Participants D and add new water areas with the addition of new spaces, which have correlating functions with those areas. Later, Participants B, C, and E move their focus on the east side of the map while participants A, D, and F keep their focus surrounding areas of the water that Participant D first played. It should also be noted that participants did not organize these actions prior to the start of the game. Additionally, during the game, players didn't mention alliances with other players. Even though they were clearly two groups, each player's action was individually decided, and collaboration/conflict happened based on the players' actions, not towards on players. Collaborations, conflicts, change in the focus of area and actions was occurred organically, with the flow and players' perception of the game.

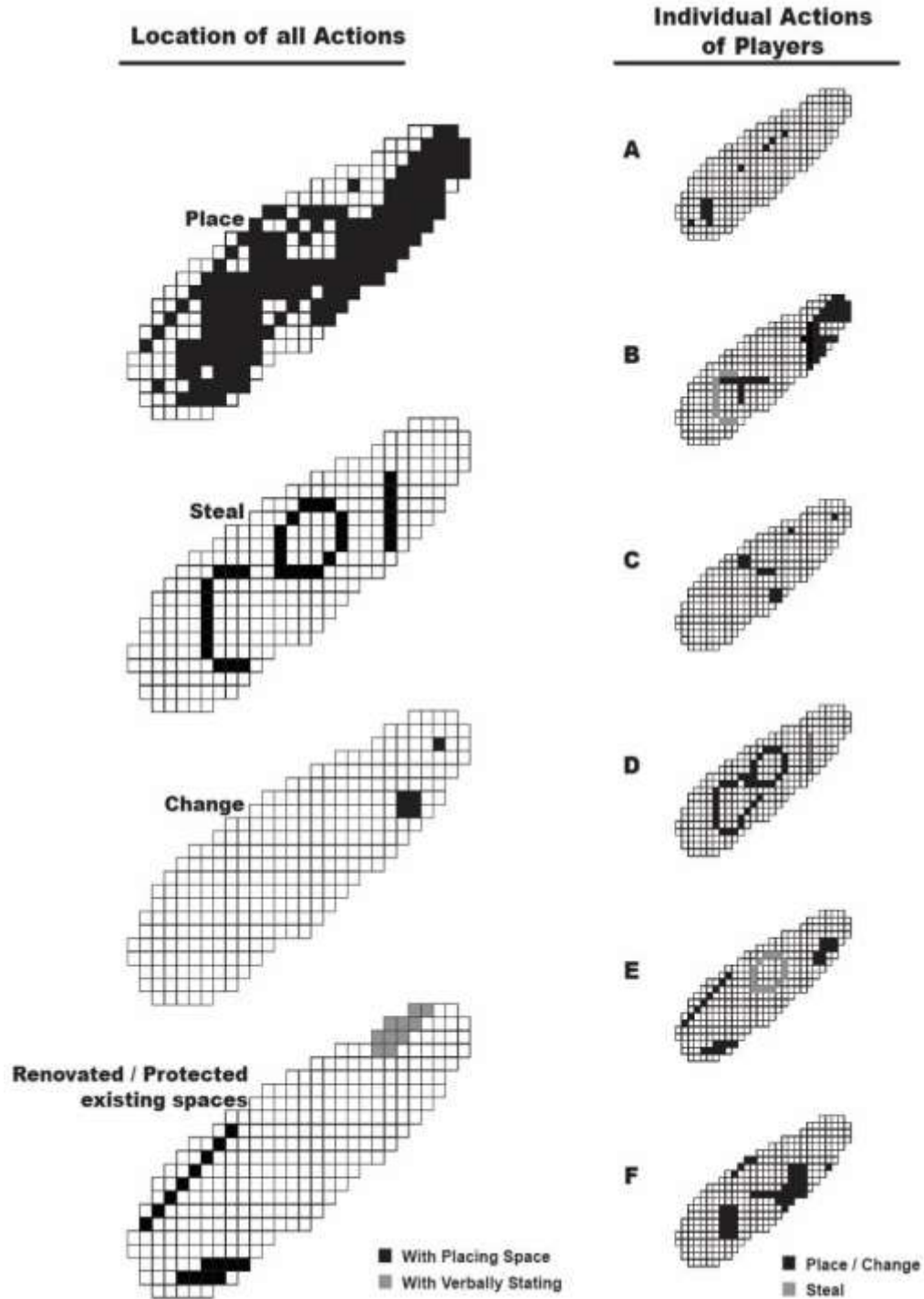


Figure 19: Analysis of players actions 1

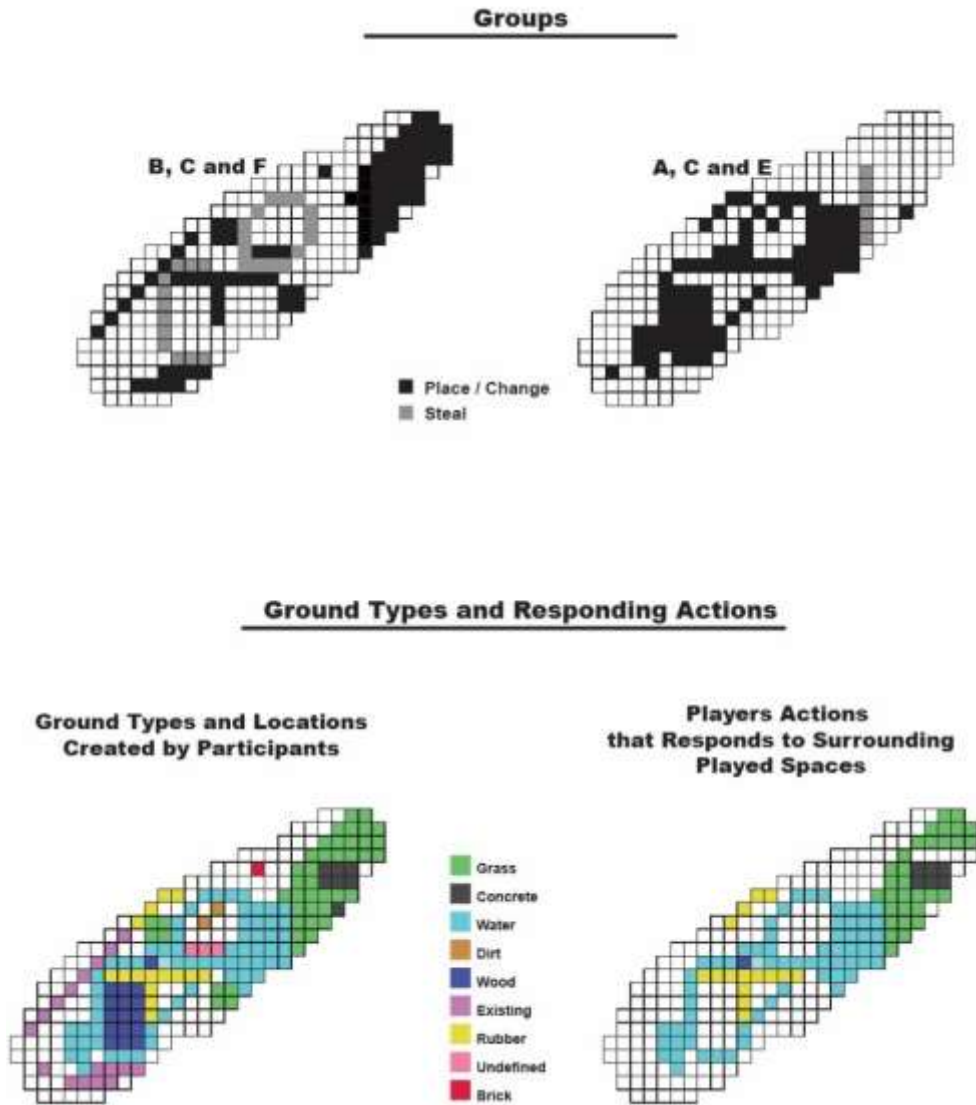


Figure 20: Analysis of players actions 2

Players also tried to add new mechanics. One player asked to change the ground of a group of spaces played by another player. However, there was no mechanic in the game for this action. Hence, the player is recommended by the facilitator to steal the space and place it again with the ground type they want to see. Instead of writing on the indicator legend, one player preferred to add a picture of the usage they wanted to see. The legend of indicators is created to show the usage

players wanted to see in the placed spaces. Hence, players were not limited to just verbal expression; they were also allowed to use other media.

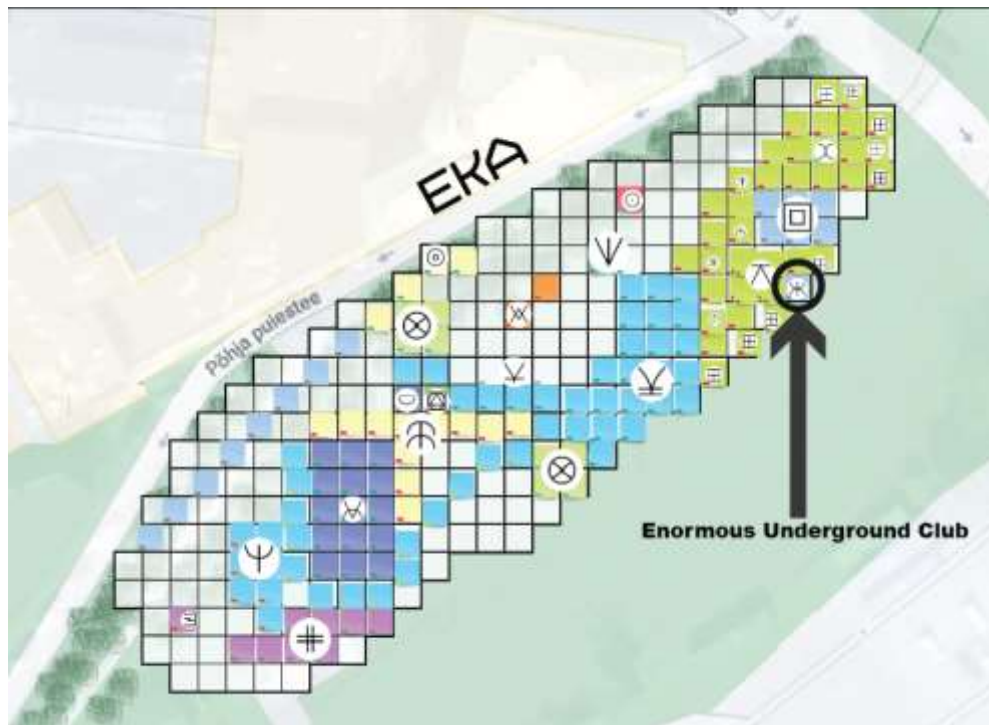


Figure 21: Enormous underground club

In addition, players also find a way to bend the rules. One player placed only one space and told other players to this space will work as an entrance to *the enormous underground club* (Figure 21). Even though the place had only one space, the player created this area to cover the whole map. Because the game only considered the surface as the only level, there was no mechanic to stop the player from doing such an action. Later, players also creatively collaborated to connect the water and club area. Although both of these actions were based on humorous decisions, they were observed to be a unique way of collaboration. They decided to use in-between areas, as was shown in the figure (Figure 22). Hence, they create a hybrid place for their wishes where the ground level will be used as a pool while the underground area will be a club. It was also interesting to see participants' reactions while they were surprised to see how the water space developed from being an absurd action to a multifunctional area.



Figure 22: Collaboration of the club and water areas

The game was achieved to be a tangible and light method for players. After the game, participants stated the game was easy to learn and very entertaining. During the gaming session, it was clear that participants easily adopted the method and focused on the game process. The game also enabled conflicts and collaborations while making players' actions constantly affect each other. Hence, even though it was an individual process initially, players were observed to be gravitating to common interests during the game. The game's mechanics managed to drive people to discuss, create and collaborate without direct influence of the facilitator. Players effortlessly visualized the different interests and usage with the glyphs. The test was a successful experiment as a medium for collective expression.

However, for this version of the game, even though it shows some potential, it was not an efficient co-design tool for creating a basis for an urban design concept. During the game, it was clear that, for some participants, the entertainment factor outweighed the practicality of the game. Some of the actions were far away to be realistically applicable to the area, such as the huge water area and underground club. Also, players acted like there are unlimited resources for the area, and they needed to constantly put a new function to the area due to the mechanics of the game. Players were not experts in any urban design-related profession. Hence, they were not used to thinking about

the space through the map with the top point of view. Therefore, for some players, the scale perception was the problem.

5.6 Limitations and Challenges

Some limitations and challenges should be noted during this project. Gaming session conducted during the extreme measurements in Estonia due to the COVID-19 pandemic. At the beginning of this study, the game was first designed as a board game to make participants discuss and design on the chosen location. It was an important aspect for the game to make participants physically present on the premises for helping them to understand what they are changing during the gaming session. This aspect is also planned to be helpful for participants to understand the scale of their choices. Due to the pandemic, the game was redesigned suitable for an online experience. The final design and the execution of the study was handled with an online collaboration tool named Miro. Conducting the game online made the chosen location less visible for participants, and a computer with an internet connection became a necessity to participate in the game. On the other hand, Miro allowed the game to be adjustable easily for any chosen location, open for everyone. Additionally, Miro made the game cost less, and the easy-to-use nature of the Miro allowed players to learn the game fast. However, there are some limitations seen due to Miro. After all, the primary purpose of the platform is not designed for creating a game. Hence, the flow of the game, maximum player number, and some mechanics of the game were affected by Miro's limitations.

It was essential for the game to find an open space and participants who used the selected space in their everyday life. In addition, the game was a prototype which, in the beginning, even the playability of the game was unknown. Hence, for the game's first test, it was important to understand the game's capacity, playability, and how game mechanics affected the users. Therefore, the location selected was the open plot facing EKA's main entrance between the tram line and Põhja Puiestee street. Also, participants were the students in EKA. This made the testing phase easy for the project but also created bias in results. The majority of the participants were students in EKA, and they were in the same age group. Even though the game was designed as open-ended, the outcome of the game would be different in every session, and the lack of diversity during the testing phase showed only the interests of participant students from EKA. In addition, finding participants for the same time frame for the game prototype was problematic. Consequently, the time frame of the testing phase was limited to two hours for participants

different from the original intent of the game. The original plan for the game was to be conducted for 50 turns, approximately 4 hours depending on how participants play the game. Lastly, ten participants were recruited for testing the game two weeks in advance. Out of these ten, only six participants showed up to test the game.

5.7 Future of Place! Steal! Design!

Even though the game demonstrated its potential, especially regarding creating a collaborative and fun medium for participants to design and decide, there are still some gaps for the game to become a productive tool for small scale co-design projects. Therefore, raised ideas in this chapter can be tested and implemented later for the future development of the game. These proposals are merely created based on the observations during the testing of the game.

For the game, limiting and creating a shared pool for the indicators would be an alternative solution to preventing players from constantly producing new functions. Hence, limiting resources for indicators may cause players to prevent or oppose unnecessary actions during the game. However, this addition also can be a restrictive factor for participants' creative input to the design. In addition, if limiting the indicators is going to be tested, it is crucial to decide which mechanism should be used for achieving limitations. Limiting the indicators can be conducted by restricting the number of indicators, limiting the scale based on affecting an area or even with additional aspects such as imaginary cost for indicators. But it should be considered that how participants actions are limited will be highly affected by the way that they play the game.

Even though the tested version of the game allows participants to share visuals on the gameboard, it was clear that players needed facilitator's direct support during the game to organise and scale the visuals while connecting them to relevant indicator symbols. Hence, for the later prototypes, an addition of legend to the game board would be appropriated where people can have the possibility to show what they want to see in the area with visuals they put on the game map in the simplest and organised manner. In addition, as the testing of the game showed, one player bent the rules to make their actions cover the whole map even though they were using limited spaces. Hence players actions on the map should be restricted to the ground level.

During the experiment, it was also clear that some participants had problems with the top view and visualising the scale of their actions. Therefore, before the game, it might be useful to conduct a

workshop on the designated area with participants. This workshop might work for participants to discuss, visualise the site for the game and understand the scale of their possible actions on the land during the game. Also, after the game, participants' two-dimensional top view design may be modelled in Minecraft, similar to projects of Block by Block. Hence, the co-design process may continue on Minecraft, where participants observe their decisions on the blocky terrain of the game in three-dimension where simple mechanics of the game allows players to adjust their decisions.

The game can also be created on an individual website. Even though Miro was a beneficial online platform, there are many limitations caused by Miro, such as the maximum number of players or the game's flow. Therefore, creating the game on an individual website would be convenient. With that, the maximum number of players can be increased, and mechanics such as choosing the area, stealing or placing the area will be effortless steps for the players. Making players actions as simple as possible will affect the flow of the game positively. Visuals of the game can also be designed similar to Block'hood in the proposed website, allowing the players to visualise the area easily (Figure 23). With this form of visualisation of the game, players can also have the possibility to choose directly from the catalogue of indicators which will be provided and developed collectively. But for this proposed version of the game, it is essential to create an open-source catalogue of indicators where players can easily add or adjust visuals. Otherwise, the catalogue will work for players to design the area as by the given predesigned visuals, making the creative input of players very limited. This form of visualisation also can be problematic due to the appealing factor. Players may choose the indicator based on aesthetically appealing pieces than functions they want to see in the area.



Figure 23: Some pieces that players can use in the Block'hood game (Source: Moss 2016).

6. Conclusion

This study was conducted to understand the potential of the games as a participatory tool in urban design. Participatory approaches and play started to infuse architecture and planning with a similar agenda: inclusion of the users in the designed space and their empowerment towards decision-making. Even though the architects and planners praised the idea of participation, the methods were also highly criticized. Users' involvement and engagement towards the design, language of the participation, achieving consensus and conflict management, bridging the gap between experts and non-experts had been highly raised critiques towards participation. However, it has been shown that games provide unique tools for answering those critiques. The study aligns with the scholars such as Ekim Tan, Mattia Thibault, Cristina Ampatzidou, and Jose Sanchez, who illustrates the values and benefits of the game for learning, designing, and experiencing the urban realm (Tan 2020; Hassan and Thibault 2020; Ampatzidou et al. 2018; Sanchez 2015). As many examples have displayed in this study, games provide a unique and playful medium to be used as an alternative tool for participatory approaches. Games empower people to engage in urban-related situations. The simple language of the game and mechanics that mimic/catalysts real actions, which make the actions and effects more visible for players and allows a unique communication platform between various participants. Even though the games cannot fully simulate each dynamics of cities, simple, entertaining, and playful tools of games may illustrate the urban-related issues tangible for commons. Games provide a safe and playful game-arena for replicating the dynamics and conflicts while tackling them. Games create a dedicated environment for learning, communicating, and creating while making the processes easier to attend, absorb, and test.

However, this does not mean that games are the perfect elixir for participation. The use of the game should be seen as a complex tool that is highly dependent on the designers and mechanics that are used. Games are not a neutral language. Each game can be designed to fill a particular agenda while subtly leading participants for a predetermined outcome. The simplicity of the games also may lower the transparency of the situations. Making complex issues more tangible for players may cause overlooking many vital aspects of the urban realm while directing players to fulfill the agenda of facilitators. Predetermined feedback by designers may become more influential to the outcome of the game than players' actions. In addition, games and gamified applications can be a tool for governing, exploiting, creating voluntary participants to provide any

data, or changing people's behavior for predetermined goals. Lastly, games can be just inefficient designs that are not playable.

This study attempted to connect different effects of the game and gamification with the concepts of paidia, ludus, and magic circle. Caillois' spectrum of ludus and paidia shows crucial insight regarding how games and gamification can be used as a form of power that nudges the users for a decided outcome or empowers them regarding urban-related situations. Application of paidia creates open-ended structures where the individuals are engaged by the activity itself. Paidia manifests itself as a diversion, chaotic, spontaneity, improvisation, and carefree. Ludus manifests itself from paidia while transforming carefree, spontaneous activities into goal-oriented, rule-based, and calculated ones. Application of ludus creates frames that put activities into rules, goals, tasks, directions while disciplining the paidia. Neither is better as long as together they applied appropriately to the game design. However, outside of the magic circle, is where it becomes problematic. This is the point which the critiques focus on regarding gamification. For example, on the one hand, mainstream gamification uses the application of ludus to make their activity more gameful and engaging. But also, ludus, in nature, mediates actions, creates targets and conflicts. Hence it directs the users towards the designed goal. In addition, there is not much paidia allowed in this context. Users do not explore, test, try to bend the rules, or work outside the designated goals. On the other hand, what punk gamification does is the application of paidia. It creates open-ended structures where the individuals are engaged by play itself. It allows ludus to emerge from the paidia by individuals who play the game, not from the ludus is implemented by the designers. Hence, implementing paidia or ludus creates a different impact on the users. Based on the implementation, gamified action becomes free, open-ended, and experimental or structured, disciplinary, and nudging.

Similar opinions may also be raised for serious games. Even though serious games are full-blown games, these games are still used for real-world events or processes, and players will tackle them for solving serious problems, training, or educating in a playful manner. Therefore, our game Place! Steal! Design! designed as close to paidia as possible. With that the aim was to allow players to create design concepts regarding their surroundings without setting any goals, directly governing them, limiting their creativity, or directing them to a predetermined outcome. Place! Steal! Design! achieves to be a playful and engaging activity for participants where they discuss,

collaborate, conflict, and design in the simplest manners. It worked as a medium of collective expression for the participants regarding their immediate neighborhood. For this game, limitations and feedback are mostly created based on players' actions towards each other's spaces. The game mechanics, such as stealing and changing other participants' spaces, were implemented with the aim of representing the process of self-governing. Nevertheless, it was observed that creating a game closer to paidia made the game inefficient for producing realistically applicable outcomes for physical spaces. Even though the tested version of Place! Steal! Design! can be a productive tool for learning about the users and their interests; it was not productive for creating a basis for the design concept of the predetermined open space, which was the main aim of the game. It was observed that designing the game closer to the paidia gives extensive freedom of choice to the players within the game. Therefore, players act as if there are unlimited resources and they have despotic control over the designed area. In addition, it is observed that for some players, the entertainment aspect of the game outshined the main aim of the activity. Some players had a loose interest in a serious outcome which might be produced through the game and focused on more playful aspects of it. Hence, arguably, the application of ludus that limits the players' actions might be an appropriate addition for designing a serious game.

7. Final Words

The urban realm has its own limitations and rules. Therefore, to reflect these rules and limitations to a game, applying the representations of them also might be necessary even though they have a governing role. Application of ludus may enable the limitation of the despotic control of participants over the design area. Application of paidia enhances the creative power of players. But it is crucial to understand to what extent limiting the players' actions would be beneficial for both players and creating a productive outcome. At this point, the role of the serious urban game designer becomes crucial. It is essential to acknowledge how/what/which mechanics are applied for limiting and governing the players' power and decisions over the space. Games are an enormous field where facilitators need expertise regarding both urban design and games. Game designers, architects, and planners should foster critical thinking about their decisions regarding the process for players. The gameful activity that has the potential to affect the actual urban realm should be transparent for the players to question designers' purposes and criticize the agendas and rules. In the end, gameful approaches can be used as a tool for similar to situationist dreams of unitary

urbanism where people playfully involved in every part of the urban realm, but also it can be used as a great tool for controlling, exploiting, and manipulating people for predetermined agendas.

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