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The Transformations of Physical, Digital and Social Spaces During COVID-19 Pandemic

Exploring the Social-Spatial Practices of Educational and Labour Migrants from Post-Soviet Space in Berlin

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Abstract

Since the end of the 20th century, the interconnection between physical and social spaces has been widely explored (Löw, 2001). However, "quarantine" as a new social-spatial practice, as well as the universal digital transformations of daily practices as a result of the COVID-19 pandemic, led to spatial refigurations in social, digital and physical spaces. Hence, this study contributes to the advancement of the knowledge of the new social-spatial reality. In the framework of the critical practice theory, qualitative in-depth interviews have been conducted with educational and labour migrants from post-soviet space lining in Berlin to understand transformations of the social-spatial practices of the social agents as a result of the COVID-19 pandemic. The promise of this study is threefold: to understand the transformations of the social-spatial connectivity practices of social agents; to compare social connectivity practices in digital and physical spaces; to understand the interrelation of the social, digital and physical spaces. The research findings show that practice is more relevant than the structure of the network in the context of social connectivity. Moreover, the spatial context of the communication influences on connectivity practices. Finally, the COVID-19 pandemic led to spatial refigurations in social, digital and physical spaces and these refigurations are interrelated. The findings of this research can be applicable in many fields starting from urban planning to the algorithms of digital applications.

CONTENTS

Introduction

Starting from the 1970s the world has become more globalised (Newman, 2006). Globalisation is mostly associated with the perception of the "world without borders", therefore, human freedoms, availability of different resources, free mobility opportunities, equal human rights, to name but a few. In this social and political context, people from various parts of the world started to move to globalised urban centres in search of self-realisation. Hence, contemporary cities have emerged as spaces of "strangeness" (Simmel, 1908). Nowadays, continuously more people work and study outside their home town and even country. However, the COVID-19 pandemic changed the patterns of human coexistence. Social crises are situations when old social structure changes and people have to reimagine the norms, values, social roles, and everyday practices (Jordan, 2011). During the crisis society undergoes structural changes: on the one hand, old cognitive and behavioural patterns do not exist anymore. On the other hand, new practices do not establish themselves, yet (Durkheim, 1897). Hence, the amount of regulation in society drops, which leads to inconsistency between societal goals and the institutional means to reach them (Merton, 1938). This phenomenon is called *anomie* (Durkheim, 1897 & Merton, 1938), which opened new opportunities to explore the changing nature of social relations in society.

When the COVID-19 pandemic started, among many other things people had to redefine the idea of social distancing and closeness. Even though people should keep physical distance, they need to be connected. Social connections are particular resources, which are available to the members of the group. These resources can be information, small or large services, financial aid, companionship, power, personal reinforcement essential for mental health and other social credentials (Bourdieu, 1980; Colleman, 1990; Wellman, 1990 & et al.) Even the strongest critics of social capital would agree that well-connected people have more availability of resources. Hence, people with more social connections would be more likely to have more opportunities for the realisation of their private and social goals. Therefore, people are inclined to make connections because they anticipate *social gains* (Bourdieu, 1990).

Anomie is a kind of social disability when the members of the group lose their access to social institutions (Kim & Pridemore, 2005), hence, social capital becomes a compensatory antidote. Needless to say, because of the pandemic, people not only did not have access to social institutions but also the political imperative of social distancing led to the transformation of social relations. The paradox of being far and, meanwhile, connected led to the universalization of the new digital practices. However, the situational adaptative normalness of digital practices tends to become normative normalness. Thus, the digitalization of daily practices as a result of the COVID-19 pandemic created social risks for an unequal distribution of resources between various groups, which resulted in marginalisation, social alienation and inequality (Bowleg, 2020). Particularly, as a result of the pandemic, the practical organisational context of the people's lives has shrunk. Even though people continued their common daily activities, such as studying (but not going to university), working (but not being at the workplaces), doing shopping (but not going shopping), they rarely participated in common social activities together. Even after the lift of the COVID-19 restrictions, many organisations continue the practices of remote or hybrid working/studying. Hence, the further penetration of digital technologies into peoples' lives seems inevitable. Therefore, it is important to understand how people compensate and transform the shrinking space of their social life.

The scope of the social capital studies includes positive (Durkheim, 1897; Coleman, 1988; Wellman, 1990 & Putnam, 2001) and negative (Bourdieu, 1986; Loury, 1977 & Portes, 1998) effects of social capital, how social capital can be achieved and transmitted, to name but a few. However, there is no consensus among social scientists whether it is a group- level phenomenon or an individual level. Instead of contrasting realism and cultural relativism, we should remember that each individual action takes place in the group and it is a part of the wider social context and what bridges society and the individual is the *social practice* (Thévenot, 2007: 233-244). Similarly, it is important to remember that social capital is a spatially embedded phenomenon (Small, 2009) and whether people will seek connections or ask for help mostly depends on the practical context of communication. Even though some approaches (Soja, 1989; Löw, 2001; Dascălu, 2013; Small, 2017 & et al.) cover the ideas on how spatial context of the communication influences on connectivity practices, they do not cover the peculiarities of the universal digital transformations of daily practices as a result of COVID-19 pandemic.

Moreover, our social capital consists of strong and weak ties. Strong ties provide large services, while weak ties provide information (Grannovetter, 1973). This means that different types of social ties provide different types of resources. The strong ties are the family members, close friends, etc., while weak ties can be classmates, colleagues, acquaintances, to name but a few. The weak ties are organizationally embedded and people's interactions with them are not voluntary but depend on the fact that they share common daily spatial practices (Ibid.). Thus, it is important not only to understand how connectivity practices have been changed as a result of COVID-19 related operations, such as lockdown and digitalization, but also how the exchange of the resources embedded in different types of social ties have been transformed.

Further, physical spaces, such as university buildings, city parks, streets, libraries, etc. are social and emerge as a result of the repetitive daily practices (Löw, 2001). The physical spaces are neither objectively given phenomenon nor mere the result of the architectural solutions. They are dynamic and ever-transforming phenomena, which are influenced by the transformations of social relations in society. The conception of interconnectedness of physical and social spaces/socal capital is a well-studied issue in social sciences, which mostly claim that the distribution of social resources depends on physical-spatial interactions (Jacobs, 1961; Whyte, 1980; Yael, 2010; Gehl, 2011 & et al.). As a result of COVID-19 pandemic, some social practices "moved" from physical to digital spaces. However, these issues remain less studied, hence, the conception of the interrelation between digital, physical and social spaces/social capital opens a new field for research. Therefore, in the framework of this project, I am interested in how the change in social space/social capital influences the change on physical and digital spaces. Thus, the promise and the heuristic of this project is twofold:

RQ1: How social connectivity practices have changed during COVID-19 pandemic as a result of quarantine and digitalization.

RQ2: How the transformations of social connectivity practices influenced on refigurations in physical and digital spaces.

The *objectives* of this research are:

1. To reveal how temporal and spatial context influence on social connectivity practices.

1.1. To understand how people create and lose social capital during various stages of the crisis: prodromal, acute, chronic and resolution.

1.2. To describe how people make decisions to connect based on certain cherecteristics, such as strength of the social tie, range of the network, similarity between social agents, exclusivity of the social ties.

1.3. To understand how habitus of the respondents influence on the transformation of the social-connectivity practices.

2. To compare social connections in digital and social spaces.

2.1. To describe how attribute, situational and structural similarities maifest themselves in online and offline spaces.

2.2. To describe how organisational practices influence on transformation of the connectivity practices in online and offine spaces.

2.3. To compare necessary, optional and interactional social activities in online and offline spaces.

3. To understand how space have been transformed as a result of the spatial restrictions imposed by pandemic.

3.1. To describe how the functions and the use of the space have been transformed.

3.2. To describe how mass degitalisation influanced on the trasformation of the space.

3.3. To interpret how the interconnection of the physical, digital and social spaces manifested through social practices.

The *aim of the research* is in the framework of the critical practice theory to describe the transformations of the social practices in the context of digitalization during COVID-19pandemic and its interconnection with physical and digital spaces. The *subject of the research* is the educational and labour migrants living in Berlin. The educational and labour migrants' connections mostly consist of weak ties in the new urban environment, which are mostly embedded

in organisational context and are given through physical social interactions. What concerns Berlin, this city is a well-urbanised space, where heterogeneous bridging social capital and weak social ties predominate. Hence, this provides perfect context for the research questions I intend to answer. The *object of the study* is the transformations of social practices in the context of digitalization during COVID-19 pandemic.

This paper consists of three chapters. In the *first chapter* I discuss the classical and contemporary approaches, which theorise the role of the social capital micro, meso and macro level, such as interpersonal relations, groups and national level. Further, I also conceptualise social capital and try to evaluate its measurement prospects. Finally, I suggest that social capital is spatially embedded. Hence, its measurements are possible only taking into account its physical-spatial and digital-spatial components. In the framework of this research I will use the concepts of social capital, social space and social ties interchangeably. Thus, I also suggest that social, physical and digital spaces are interconnected.

In the *second chapter* I suggest critical practice theory as a theoretical-methodological framework to measure social-spatial transformations in the context of COVID-19 pandemic. First, I discuss its theoretical bases and concepts, which have guided this research project. Second, I suggest methodological opportunities and limitations of the critical practice theory as a methodological framework for qualitative research. Finally, I discuss the application of critical practice theory in practice. In other words, I present my research design. Thus, this chapter dedicated critical practice theory as a research framework in theoretical, methodological and practical levels.

In the *third chapter* of this study, I present research results as well as suggest theoretical explanations for them. First, I discuss the transformations of the social-spatial practices taking into account prodromal, acute, chronic and resolution stages of pandemic. In this subchapter, I show that the structure of the social relations have become less relevant, while social practices have become more central in social connection. Second, I compare social practices during thepandemic in physical and digital spaces. Third, I suggest that social, digital and physical spaces are interconnected.

In conclusion, I conclude the research results as well as the applicability opportunities of research results in various fields of social life. Finally, I have also included the research tools in appendices,

such as consent forms, in-depth interview guides, as well as concept map, which is necessary for transparent and ethical research projects.

1. Theoretical Peculiarities of the Social Capital

1.1. Social Capital as a Remedy for Social Problems and   Reproducer of Unequal Social Order

This subchapter presents the general discourse on social capital and its measurement opportunities both in chronological order and according to theoretical schools. Here is presented not only the social theory but also the critique and limitations of each theory. In the end, the textbox shows some theoretical expectations, which have guided the empirical research.

The scholarly discussions on social capital are as old as the social sciences themselves. The first ideas on social capital have appeared in Aristoteleian times (Mulgan,1990; Stern-Gillet, 1995; Lear, 2004), however, science has progressed, and I will refrain from lengthy discourses to ancient times and we will start our discussion from the knowledge, which is the part of the contemporary scientific mosaic (Barseghyan, 2015). However, first of all, it is important to understand that social-historical changes are qualitative and quantitative transformations in the ways people are connected with each other. Therefore, if we want to understand how societies change we should understand how the practices of connectivity transform. To put it simply, when social-communicative systems undergo structural changes during the crises, old cognitive and behavioural patterns cannot exist anymore, however, new legitimate practices do not establish themselves, yet (Durkheim, 1897). Hence, the amount of regulation in society drops, which leads to inconsistency between societal goals and the institutional means to reach them (Merton, 1938). This phenomenon is called *anomie* which leads to various deviances in the social system (Durkheim, 1897 & Merton, 1938). Therefore, the social capital was seen as a means to overcome the negative consequences of anomie.

The founding fathers of social sciences have been portraying modernization as a transformation of qualitative and quantitative features in social capital. Modernization was considered as a transition from agrarian communal societies to urbanised industrial societies (Weber, 1946). In communal, pre-industrial societies social ties are more personalised and emotional, social status of the individual was conditioned by belonging to the social group, social order based on *mechanical solidarity*, which means that all group members share the same beliefs, values and the labour is less differentiated (Durkheim, 1933; Weber, 2015; Toennies, 1957). In these types of societies, social capital is homogeneous in terms of its qualitative and quantitative features.

While, in modern, industrial societies, social ties are characterised by rationality, social interactions are impartial, social status of the individual is not ascribed but achieved during the life and social order based on *organic solidarity*, which intends division of labour, differentiation of social system (Ibid.), hence, heterogenization of social capital. Therefore, the more differentiated and diverse the society is, the more people strive for unity and cooperation (Luhmann, 1995). However, what's evident in the texts of these authors is that they see the transition from communal to industrial societies, hence, heterogenization of the social capital, as a one-sided process.

During the 1960s, continuing the Durkheimian social functionalism's tradition, the topics on social capital widely have been studied in American social sciences focusing on integrative, positive effects of social capital. In his initial analysis of the concept sociologist James Coleman (1990) who intensively popularised the concept in American social sciences, was trying to understand the relationship between success in life and social capital. He mainly stressed the role of the social capital in the creation of human capital (1988). For Coleman, social capital is a characteristic of the social group (Coleman & Hoffer, 1987) and he starts his analysis with a critique of the prevailing theory of individual's decision-making. His ideas on social capital should be understood interrelated with the rational choice theory. According to him, agents will select actions that will have the best outcome. Hence, he views social capital as a means to promote vertical mobility in the social structure (Coleman & Fararo, 1992). This means that individuals invest in social relations with the hope that they will also receive benefits from their contribution. Finally, individuals determine, taking into account the quality and quantity of the resources embedded in social groups, which relationships are more beneficial. In sum, social capital is a way to ease the agency in structured contexts.

Coleman (1993) claims that social capital is a characteristic of the community and should be measured on the group level, stressing the importance of institutions and organisations. Therefore, the concept of the "network closure" has a central place in his theory, describing the network of the individuals who are connected with each other, share information, have certain obligations and expectations, comply with certain norms and sanctions, obey certain power relations (1990). This means that when the network is enclosed, the resources embedded in the social capital remain as a possession of the group, which individuals use to fulfil their goals. However, when the network is enclosed, what the individual member does, spreads to the whole

group. Hence, the social capital also becomes a source of control for the group members. In this context, the values of trust and diffuse reciprocity become a necessary precondition for the effective functioning of the social system (Coleman, 1988). The Colemanian conception of the social capital has not only extensive theoretical value but also wide empirical promise (Hofferth, Boisjoly & Duncan, 1998; Lopez, 1996; Parcel & Dufur, 2001; Dika & Singh, 2002). Coleman himself, widely researched the educational achievements of the students from more vulnerable groups, publishing one of the comprehensive statistical reports of his time (Coleman, Campbell, & et al., 1966).

Even though Coleman's concept has an enlightening meaning in social sciences, it should be noted that individuals do not always have the opportunity and skills to choose to enter into certain relationships to fulfil their goals. In other words, agent's commitment to make decisions that will help the accumulation of the good social capital is a context dependant (Foley & Edwards, 1999: 141–173). Needless to prove, that public resources are not equally distributed in the social system, hence, people's social background as well as external conditions can influence decision-making procedure. This means that, social capital not always can have positive effects on individuals as Coleman claims. Moreover, he failed to explain individuals' membership to gangs and clans, which can negatively influence them (Portes, 1998). To put it differently, high social capital does not guarantee individual success: not only quantity but also quality of the network is principal here. Whereas, it will be fair to mention, that some cases show that minority students, despite being the underprivileged group in society, have high educational achievements mainly because of having high social capital (Khattab, 2003). To conclude, the high social capital is a necessary but not satisfactory precondition for the individual success.

Following the tradition of American "pacific functionalism" of the 1960s and influenced by Durkheim and Coleman, American political scientist Robert Putnam also focuses on integrative effects of social capital, stressing its benefits on a national level. Putnam's main argument is that if the region has a well-operating economic system and high level of political integration, this is because of the region's successful accumulation of the social capital (1993). According to him, social capital is the main public resource of the community and can be divided into three main components: social values; social norms and obligations; social networks. First, in modern, complex societies the most important social value he considers the "generalised trust". This means that individual actors do something good with the hope that it will have positive effects on

a communal level and indirectly will be "rewarded" (Putnam, 1993: 166). Second, social norms and obligations encourage individual actors to cooperate (Ibid., 88). To give an instance, becoming a member of the educational institution, the university supervisor and the students are obliged to cooperate. Third, social networks and associations stimulate public participation to fulfil the long term goals (Putnam, 1999). On the whole, trust, reciprocity, collaboration and civic activity contribute to the well-being of the general community (Putnam, 1993: 177).

Despite the fact that Putnam's theory is one of the most influential contributions in social sciences which seeks to describe the communal value of the civic networks, it remains a western-centred explanation of social capital. Moreover, Putnam's voluntary associations mostly referred to the cultural associations and sports clubs, which have inclusive, integrative effects for social systems. Putnam also does not take into account non-functional effects of social capital, such as the membership of the terrorist groups, gangs, clans, to name but a few. Further, even though he explains the importance of voluntary associations for effective functioning of the political system, his theory does not take into account the issues of internal democracy of these social networks (Shapiro, 1997). Interestingly, the scholar mentioned that the main challenge of the accumulation of the social capital of his times is the change of the leisure time activities, especially, the mass consumption of the television (Putnam, 1995: 74-75). Coming to our days, when not only leisure but also all group activities are gradually replaced by individual activities fostered by the mass digitization as a result of the pandemic, the concerns of Robert Putnam are becoming more relevant and worth studying.

While the classical American scholars see the social capital as a remedy for our social problems, their European colleagues, especially, representatives of critical schools of thought, were trying to illustrate how social capital serves as a reproducer of unequal social order in society. In this context, the conception of the french sociologist Pierre Bourdieu's of social capital has a special importance. He first used the term in his "Outline of a theory of practice" (1977) and his theory mostly connected with his ideas in class. According to him, social capital is an "*the aggregate of the actual or potential resources which are linked to possession of a durable network of more or less institutionalised relationships of mutual acquaintance and recognition*" (Ibid., 36). First, in his definition, Bourdieu finds that social capital is not an ascribed social fact but people deliberately construct sociability with the hope to achieve certain resources. Second, subjective

mutual acquaintance and recognition of each other has become the basis for sociability and leads to the institutionalisation of the social relations, which makes the social order possible (Bourdieu, 1985: 248). This means that the accumulation of social capital requires intentional investment of both economic and cultural resources (Bourdieu, 1979), which are not equally distributed in society.

He identifies three kinds of capital: economic, cultural and social (Bourdieu, 1986). All these forms of capitals are fungible and ultimately reducible to economic capital (Ibid.). Thus, through social capital people can have access to economic goods (Bourdieu, 1986). Hence, the opportunities of the individuals and their actions are remarkably conditioned by the social capital they possess, which mostly serves as a transfer of cultural and economic resources within a certain group, therefore fostering the reproduction of unequal social structure. Needless to say, that internal representation of the social structure of the individual, which Bourdieu calls *habitus* (Bourdieu, 1990: 63), and individuals' social background varies. The concept of the habitus incorporates various dispositions, which encompasses the objective structures of society and the subjective role of individuals, their social roles in society, social background, environment where they were born, various socialisation agents they were communicated with, to name but a few (Bourdieu, 2000: 19). Thus, being in equal social situations, individuals act differently depending on their habitus. In his theory the concept of the institutional habitus has a special role, which shows the link between institutionalised social roles and individual's behaviour within specific social structure (Bourdieu & Passeron, 1990). This creates hope that, even though the habitus is a socially constructed and durable phenomenon, it is not an unchangeable construct because it constantly being subjected to the experiences.

According to Bourdieu, one of the characteristics of the social capital is that it is based on the mutual recognition of the belonging to the group (Bourdieu, 1986: 1998a). To become effective, social capital needs to be translated into a symbolic capital, which will make possible the distinction between groups (1986). Symbolic capital is an internalisation of the social structure and it has an ideological function (Pellandini-Simányi, 2014). It's a capital of recognition and somehow similar to the Putnamian concept of "universal trust". Interestingly, Bourdieu mentions that the modern state not only have the monopoly of physical violence but also symbolic violence, for example, imposition a set of coercive norms during COVID-19 pandemic

(Bourdieu & Wacquant, 1996: 112). The symbolic capital becomes a legitimising force, which is trying to conserve the existing norms and values. In the context of the pandemic, when the virus started to spread, "staying at home", "saving the world", "being creative", "keeping the rules"… have become universalized values, and those who did not conform to the norms were considered "immoral". Regardless of the legitimised symbolic violence, many under-privileged social groups have become more vulnerable, which gave rise to the deepening of social inequalities in society.

Similar to Bourdieu, economist Glen Loury (1977, 1981) was trying to understand the relationship between life success and different types of capitals. He was analysing racial income inequalities, claiming that quality and quantity of resources that the individual can invest in their development depends on their social background and the social capital they possess (1997). The social environment where the individual has been born and socialised strongly determines what equally able individuals can achieve in life. Interestingly, he thinks that despite the implementation of the equal opportunity programs to reduce racial inequalities, the vision to achieve a socially equal society is a myth (Loury, 1977: 176). For that there are two reasons: first, the inherited poverty of their parents, which reproduced in the experiences of their children in the way of scarce economic resources and the limitations of the educational opportunities. Second, young black people have lower connections and less information about the opportunities in the labour market (Loury, 1987). Accordingly, it turns out that the social capital becomes the means to sustain relationships and social order in society. Unfortunately, we must acknowledge that it also serves as a reproducer of social inequalities in society.

To put the whole classical scholarship on social capital in a nutshell, we can claim that there are consensus about two contradicting views on social capital. On the one hand, evidently researchers gave importance to the positive effects of sociability and its integrative impact on social agents and systems (Dewey, 1915; Hanifan, 1916; Coleman, 1988; Putnam, 1993; Lin, 2001). On the other hand, it was viewed as a means to reproduce the social inequalities and hinder the success of individual actors and development of the groups (Bourdieu, 1977; Loury, 1977; Portes & Landolt, 2000). Not surprisingly, two aspects of the social capital remained neglected by social scientists. First, the connection between physical space and social space. By this I mean, how architecture, urban planning and the general spatial reorganisations influence social capital and connectivity practices between people in offline space. To put it simply, how

spatial and social are interconnected. Second, the connection between digital space and social capital. The rapid digitalization of society leads to the emergence of the new connectivity practices between social agents. Hence, the research on social capital and human behaviour in online and offline spaces opens new opportunities, which lacks in the classical scholarship of the social sciences.

In the freamework of this project, the specific hypotheses have not been suggested as they can be absent in qualitative research (Gilgun, 1995). However, the researcher should have some theoretical expectations before "going to the field". First, the crisis can influence the homogenisation of the social capital because people start to communicate more with their close ties. Second, the social capital is a source of control for the group members. Hence, the transformation of the social-connectivity practices can lead to the transformation of the means of social control: digital technologies can become a new means of control. Third, the transformation of the social connectivity practices is context dependant. Hence, the change of the connectivity practices highly dependant on individuals' social background and habitus. Moreover, institutional habitus, which shows the link between institutionalised social roles and individual's behaviour within specific social structure, can guide the transformation of the social ties in society. Fourth, as the creation of the social capital requires investment of economic and cultural resources, wich are not equally distributed in society, the transformation of the social-connectivity practices can proceed differently, wich can deepen social gaps in different groups of society.

1.2. Types of Social Ties: Mapping the Peculiarities of the Social Capital in the Digital Space

This subchapter is a conceptualisation of social capital, describing weak-strong, bonding-bridging, and other types of social capital. Moreover, here is presented the basis for conceptualisation according to the social resources that the social ties contain. This part presents the main concepts which guided the empirical research. This section also includes some reflections and opportunities for measurement in the digital context.

The social capital is a principal means of actual and potential resources, which are inherent in social relations. People make connections because they anticipate gains. Hence, to understand how people make connections, we should understand what kind of resources are embedded in social relations. To answer how people make connections is crucial because it's a way to understand why some people have more quality connections and how network inequalities emerge. Coming to the question of the social resources embedded in community ties, let's discuss what kind of *resources social ties can contain* which will increase the social potentialities of the individuals. First, people who are well-connected are more likely to achieve success and have better mental health (Lin, 1976). Hence, first of all social capital is an important source of emotional *aid*. Second, through the help of the social capital people can receive the *small services* (Wellman, 1990). To give an instance, one can ask a friend or a neighbour to do something for them. Third, people can receive *large services* (Ibid., 9) from the more close connections. Specifically, large services are received from those who have kinship with us. Fourth, social capital can be a direct source of financial *aid* (Ibid., 9). For example, children can receive money from their parents. Fifth, social capital can be a source of companionship. Finally, social capital can be an important source to receive *information* (Coleman, 1990) about opportunities.

The type of resources people can receive is more connected to the *characteristics of the relationship* than the individual characteristics of the people (Wellman, 1996). Therefore, it is important to understand what attributes of the social connections define the nature of the relationships. The first defining aspect of the relationship is *density* of the networks (Faust, 2006), which refers to the question whether all group members connected with each other or not.

Second defining aspect of the relationship is the *strength* of the connection (Dakui & Sun, 2013), which decides how well and intimate people are connected with each other. Third defining aspect of the network is the *range* of the network (Wellman, 2001), which depicts how diverse and differentiated the group is. Another describing aspect of the relationship is the *accessibility* of the network (Ibid., 2) which refers to the fact whether an individual's personal contacts and other resources are available to the other members of the network. By the same, *exclusivity* of the network (Strathdee, 2017) shows the relationship of the group with other groups: whether group members have antagonistic or cooperative relations with others. Also, *similarity and dissimilarity* of the network (Franz & Alberts, 2015) members are defining characteristics of the network members. Last but not least, the amount of social *control* in the network (Moore & Recker, 2016), which constrains and directs individuals behaviour in the group and exchanges with other group members.

Based on the resources social ties contain and the characteristics of the relationship we can introduce two types of social ties between social agents: strong ties and weak ties. *Strong ties* refer to the relationship, which is more intimate and special. People invest voluntarily in the ties and wish companionship with each other. Social interactions are happening in several social contexts and last over a long period of time and there is a sense of mutuality in the relationship (Granovetter, 1973). *Weak ties* can be acquaintances which can provide information and become bridges between groups. Weak ties can help the people to become the members of the new social network, which can help the individual to expand the availability of the resources (Ibid.). The strength of the tie also refers to the public-private relations. Generally, strong ties are our private relationships and weak ties refer to public relations (Small, 2009). Interestingly, the connectivity practices are context-dependent, therefore, people can be close in one sphere but not the other one (Wellman, 1990). To give an instance, A can be strongly connected with B in their professional life but do not share physical personal questions with B. The proximity and gaining support strongly connected with each other.

At the same time, we should not be mistaken that strong ties are better for the individual than weak ties. Different ties contain different types of resources. Strong ties may provide emotional aid, large services, companionship, while weak ties may provide small services and information (Granovetter, 1974). Likewise, we should not think that strong ties entirely must be supportive. Some strong ties are not supportive at all. Similarly, the frequency of the contact cannot

determine the strength of the relationship. Paradoxically, people who meet frequently may not be closely connected with each other (Small, 2017). For example, we may not meet each day with our family members but we can meet our colleagues every day and still do not have a strong connection with them. This means that in some cases, strong ties cannot provide certain social resources. People, who interact more frequently, more likely will create trust towards each other (Homans, 1961), which will expand the opportunity to ask and receive support. Hence, there is a need to understand how weak social ties, which are physically close to us, provide social resources.

Social organisations, like universities and workplaces, are not only organisations which are performing their main functions, such as get an education or earn money, these are also places where people get contacted and make social ties. Social agents may form ties purposely (Bourdieu, 1980) or non-purposely (Small, 2009). When the people do not intentionally "invest" in social ties, the connection may weaken, however, social organisations help the people to keep the connections (Small, 2009). It is not important that A be friends with B. When they become a member of a particular organisation, this leads to the formalisation of the social relations. Hence, this helps that A and B become accessible with the resources each have (Small, 2009: 99). The organisation sometimes helps to receive information, create common practices between people which foster social interactions and help to develop trust and homophily (Small, 2017). To put it another way, social organisations are becoming the "brokers" between people (Burt, 1992). This means that our weak ties are mostly institutionally embedded. Hence, the quality and the nature of the relationship is mostly influenced by the organisational environment. As a result of the COVID-19 pandemic, the organisational context has been moved from physical to digital space. Hence, there is a need to understand how the latent functions of the organisations have been changed and how it has influenced the transformation of the *organisational social capital*.

Similar to the Granovetter's typology of a strong and weak ties, based on characteristics of the relationship Putnam describes two main types of the social capital: bonding social capital and bridging social capital. *Bonding social capital* is similar to the Granovetter's conception of the strong ties and it refers to the social networks between homogeneous social groups of the people, while the *bridging social capital* is similar to the weak ties and it describes the relationship between socially heterogeneous groups (Putnam, 1993). Besides the level of heterogeneity of the social group, Putnam suggested particular preconditions for operationalization of the social

capital. Bonding social capital provides emotional support and access to scarce resources. It can help to mobilise solidarity and it intends some level out-group antagonism (Williams, 2006: 4). By contrast, bridging social capital intends outward looking, connectivity with a wide-range of people, seeing oneself as a part of a general community and the generalised reciprocity with the whole community (Ibid., 5). Similar to the Small's conception of the organisational social capital (Ibid., 6), Putnam claims that the social capital is a feature of the communities and should be measured on the group level (Ibid., 7).

The invention of the Internet opened new opportunities for the conception of social capital. In the late 20th century people started to become enthusiastic about the opportunities that the Internet could provide. The "death of the distance" was declared (Cairncross, 1997) and there was a hope that the Internet could relieve the spatial inequalities. However, previously the internet was considered as a neutral transmitter of the information, currently it has become the side of the communication. By this I mean that information technologies can interfere in the communication procedure and influence the qualitative and quantitative features of communication. For instance, let's remember when Twitter has suspended the Trump's account (BBC, 2021) or during the Russian-Ukrainian war Meta platforms officially has announced that Facebook and Instagram users in several countries can call for violence against Russians in some countries (Vengattil & Culliford, 2022). Hence, it remains an open question for researchers, whether technologies have the decisive role in other aspects of connectivity practices between people.

Continuing the question whether the Internet is just a digital space or it has its special peculiarities, another problem arises here: whether digital social capital is special kinds of social capital or online platforms are just digital spaces where the interactions between humans happen. Hence, the main approach concerns the issue of how human behaviour differs in online and offline spaces. Some approaches claim that communication technologies help to create and maintain weak ties. Moreover, communication technology-backed networks can foster community building, especially, in underprivileged areas (Pinkett, 2003). However, the more centralised the connection, there is a more probability of the loss of the connection in online spaces (Haythornthwaite, 2002). By contrast, some claim that communication technologies foster the connection between homogeneous groups, which mostly refers to the bonding relations (Mandelli, 2002), which can lead to the polarisation of public opinions, tastes, lifestyles and opportunities. However, theoretically, virtual spaces can connect people with various social,

ethnic, political, cultural backgrounds. In sum, the digital social capital as a special type of social capital remains undertheorized.

Interestingly, during the first phases of digitalization communication technologies have been used mainly in the spheres, which intend leisure time activities. In addition, they were popular in public-political-civic dimensions of social life. Currently, especially after the outbreak of the COVID-19 pandemic, digital spaces have been penetrated into all spheres of life. Social organisations, such as workplaces, educational institutions and even state institutions partially or entirely have been transformed into online communities, which intends to change the general philosophy of social organisations. The transformation can be evident on the level of social practices, social obligations and expectations, normative reorganisations and cognitive perceptions of the individuals and groups. Depending on the social background and the habitus of the individuals, these transformations can be internalised, interpreted and implied in different ways by different groups of societies. Consequently, social behaviour is substantially conditioned by how agents understand the transformations and whether they have proper skills for adaptation. Finally, these can create risks for the proper access to public resources, which can lead to marginalisation of certain groups of society.

When the researchers say that the nature of the relationships is institutionally embedded (Small, 2009), this also refers to the physical embeddedness. People who interact physically in a constant way share positive sentiments (Homans, 1961) which will lead to the formation of social ties. There are two contradicting explanations on the question which factors motivate people to form a tie with other people. The first explanation on the motivations of how people form tie is the *structural emptiness* (Burt, 1992: 9) and the absence of certain resources (Luhman, 1986). The opposing explanation intends that people form ties based on similarities. These similarities can be three types: *attribute, situational and structural* (Small, 2017: 99). *Attribute similarities* refer to the gender, race, social status, to name but a few; *situational similarities* refer to the cases when people have the same problem; *structural similarities* refer to the cases when people have the same position in the network (Ibid.,99). We can conclude that to form a tie based on the attribute and situational similarities, people need to have physical contact. Hence, we can assume that online social capital is more likely to be based on structural similarities.

Finally, it is important to take into account the role of the human body in the process of creating trust in communication. This can mistakenly be considered as a psychological issue, however, during the restrictions imposed by states as a result of COVID-19 pandemic, what was considered less "important" were the human bodies. We simultaneously were in different cities, have been associated with different organisations, and had different roles, however, most of us were locked in our homes with our "pijamas". Hence, one of the features of the online social capital can be "unimportance" of the human bodies. Social organisations are also places of the representation of the human bodies and selves (Goffman, 1963). Hence, the *selflessness of the relations* typical to online social interactions, can objectify the social relations. Meantime, it can lead to the loss of the motivation to exchange resources and form a tie, which can lead to the decline of the accessibility of the social resources.

To conclude, in this chapter we have discussed types of resources embedded in social relations and the characteristics of social relationships. Based on these features we have described the types of social capital theorised in the social science literature which will be the guiding concepts for our research. In addition, we have laid the foundation of some new characteristics of the online social capital as a particular type of social capital. Finally, it discusses the relations of the social capital and the spaces, particularly, organisational embeddedness of the social relations.

In this subchapter, we discussed that social ties contain different kinds of resources: emotional aid, small and large services, information, to name but a few. The type of the resources that embedded in the social tie can decide wheter the social tie is strong or weak. Therefore, the transformation of the resources that people exchange during crisis can influence on the strength of the connection. Further, the other defining characteristics of the relationship include density of the networks, the strength of the connection, the range, accessibility, exclusivity, similarity/dissimilarity of the network and the amount of social control. Therefore, the transformation of the social-connectivity practices intends some changes in these characteristics. Furthermore, structural emptiness and the absence of certain resources can motivate people to form a new ties. It's also can be assumed that people form ties based on similarities: attribute, situational and structural. Finally, the universalisation of information technologies can influence the qualitative and quantitative features of communication. For example, selflessness of the relations typical to online social interactions, can objectify the social relations. Meantime, it can lead to the loss of the motivation to exchange resources and form a tie.

1.3. Interconnections Between Social and Physical Spaces:Laying the Ground for Digital Space

This section claims that social and physical spaces are interconnected and shows their practical implications in spatial planning. In addition, this part of the text states that in the literature there are few pieces of research on how digital space is interconnected to them and try to lay the ground for empirical research. In other words, here is presented the research gap. Finally, this part connects the last two theoretical subsections.

The spaces in which we are embedded determine the way we live, learn, work and communicate. By this, I mean that physical space is not an objectively given phenomenon: spatial is shaped by social (Löw, 2001). Thus, spaces emerge as a result of repetitive daily activities. The emergence of new physical spaces influenced by changes in society. Physical spaces are the result of individual and group practices, social perceptions, memory and architectural solutions (Soja, 1989). The space must, therefore, be viewed in the context of ever-changing, dynamic social phenomena that are constantly reproducing itself as a result of repetitive actions. The architectural design of the building does not take a neutral position in the formation of social space. The 60s and 70s of the 20th century, the so-called "period of spatial turn" in social sciences (Yael, 2010), was especially significant from the perspective of the development of interdisciplinary concepts. Criticism to the modernist architecture has given rise to a new, left-wing tendency to stress the need for an emphasis on public life and participatory processes in spatial planning (Dascălu, 2013). Criticism was that urban planners pay much attention to physical space, while social space, life in physical space, and its impact on social relations had been neglected. Since then, understanding the formation of space through the interconnectedness of social and physical components have become a key issue in social sciences.

The new approaches, especially, are emphasising the need to study the lives of people in public areas in the face of rapidly developing urbanisation in order to maintain the quality of life in cities (Jacobs, 1961). The main point is that urban design influences the human infrastructure of the cities. The architectural design has the potential to guarantee certain forms of group relationships. Forms of communication in physical spaces may vary depending on gender, culture, age, social status or other variables (Gehl & Svarre, 2013: 2). The increase in attention to

physical spaces in the second half of the 20th century is due to the emergence of public health problems in mediaeval cities, such as pandemics, contributed to the need to modernise the urban spaces of mediaeval cities (Ibid., 49). At the beginning of the 20th century, Le Corbusier made the first proposals for the modernization of urban planning, proposing rational modern buildings with large green spaces and tall buildings. He was one of the first to believe that, unlike mediaeval cities, which developed without any spatial planning, the new architecture had to be planned and functional (Le Corbusier, 1923).

However, in the condition of the rapidly growing urbanisation, architecture seems to ignore public life, giving priority to light, various architectural solutions, the critique of which has led to the focus on the interconnection of physical and social spaces in cities in different areas (Ibid., 49). Moreover, the 1960s were accompanied by active social movements for women's, workers' and students' rights, which in turn contributed to the focus on physical spaces, their political, and civic opportunities (Ibid., 50). The debate over physical public spaces is becoming one of the most pressing issues in spatial planning. In the 1960s, journalist and civic activist Jane Jacobs criticized modernist architecture. In the preface to her book "The death and life of great American cities" (1961), she has claimed that the city is a social space of strangers and diversity is typical to cities, therefore, there is a problem of security. However, security in urban space can be achieved not through the police, but through spatial planning. She was thinking that the well-used, inclusive streets can be safe places. In other words, there must be "eyes on the street", accordingly, stressing the connection between social security and spatial planning.

Trust is an essential component to achieve social security in physical urban space. In the cities people are "responsible" for each other, even if those people do not have formal or informal connections, strangers are "responsible" for strangers and no one "teaches" people that (Ibid., 82). Hence, spatial planning can "help" people to go back to the streets, express social diversity and be integrated into public life. The more diverse the physical space is, the more likely that the social space will be more heterogeneous and inclusive (Ibid., 45). In addition, social presence in the same physical space at different times of the day indicates a high quality of public life. This means that the physical space is multifunctional, which also could have positive economic consequences. At the same time, Jacobs argued that there is a connection between the spatial planning of public spaces and the formation of social order (Ibid., 150-151).

In the 1960s, another journalist became interested in how public spaces work. He believed that the existence of physical public spaces contributes to the improvement of the quality of social life, as well as, the formation of civil society (Whyte, 1980). William White was also in favour of "bottom-up spatial planning". This means that urban planning needs to be started by understanding how people use the space and how the local community wants to use it. White was particularly interested in how people positioned themselves in public spaces. He argued that people tend to go to the busiest parts of the street. Moreover, in the busiest streets, people tend to speak longer than in the less busy streets (Whyte, 1980). In sum, people strive for sociality.

Another American urbanist (Lynch, 1960) argued that there is a connection between "spatial planning" and how people perceive their environment, what the city means to them. He described five components that help people form an urban image: roads, street corners, avenues, intersections and road signs (Ibid., 46-91). If we look at what Lynch described, we will see that these are all physical public spaces. How people perceive the city is also important in terms of future investments. Therefore, in order to improve the image of the city and attract human capital, it is necessary to pay attention to physical spaces. In the 1980s, Donald Appleyard, who was influenced by the ideas of Jane Jacobs also began to talk about the public importance on the streets. He noted that the streets have become dangerous, non-viable environments but many people continue to live there. He believed that streets needed to be redefined as living environments, not spaces of alienation (Gehl & Svarre, 2013).

Danish architect Gehl believed that architecture is first of all people, then space and only then buildings. Gehl based his claim on the fact that in modern societies the public element disappears as the physical space begins to be individualised and privatised. Therefore, it becomes more and more important to make the streets more attractive, only then it is possible to have a functional spatial planning (Gehl, 2011). Gehl describes three types of social activities in physical spaces: *necessary activities*, which are the actions that people conduct out of need, for instance, go to work, school, shop, to name but a few; *optional activities*, which are the actions that people do only when there are good external conditions, for instance, stroll, various recreational activities; *social activities*, which refers to the interactions between people. These can be active (talk, greet, kiss…) and passive (listen to something without participating) (Ibid., 9-15). Gehl claims that it is difficult to design a place that would not attract people. The question is how often people will come there, who will come and what they will do (Gehl & Svarre, 2013).

If cities are built on the needs of the people, they will be "eternal" said another spatial planner. In order to be able to offer timeless architectural solutions, it is necessary to understand the qualities that are common to all. Then, these qualities need to be embedded in language structures. If we try to fit these common qualities into language structures, we will find that the common quality is related to liveability, wholeness, comfort, freedom, and permanence (Christopher, 1997). However, the area is formed not only as a result of linguistic actions, but also as a result of the events that take place there. As a result of individual practices, the area begins to differentiate. Thus, in order not to turn people into chaos, it is necessary to learn the science that studies how people's lives take place in public places, how social relations are formed.

Another representative of the spatial planners, Clara Cooper, was particularly interested in the psychological and social aspects of the spaces, especially, public spaces. He studied how people are emotionally connected to places, how physical space affects human behaviour, how space affects the formation of different communities (Cooper & Sarkissian, 1988: 44). She argues that there was no universal spatial planning project that would be universal for all occasions. Hence, architecture had to address specific issues, and those issues can vary depending on the problems of the people living in the space (Cooper & Francis, 1998: 20-25). In the same work, Cooper talks about the fact that public planners seem to be disinterested in the problems of the elderly, children, women and other vulnerable groups of society.

Thus, if previously spatial planning was considered a combination of art and architecture, currently, we can add to the social dimension of spatiality. In the dimension of art, spatial planning is a set of visual, aesthetic, symbolic solutions; architecture pays attention to the optimal distribution of space, the social dimension is aimed at solving public problems, improving the quality of life, focusing on how people live together and how social order is created spatially. The ideas of social justice are especially important in the context of spatial planning. One of the tasks of a spatial planner is to provide for equal spatial opportunities for all groups of society (Fainstein, 2006). This means that spatial planners are considered social justice agents who can provide common opportunities for different groups in society, including the marginalised groups. In the context of democracy, spatial planning is the equal, socially just distribution of social resources through space, which implies equality and stability.

To summarise, we can conclude that physical space contains structures of social injustice and

inequality. These spatial structures can produce and reproduce economic and social inequalities. Moreover, such ideas and values as social justice, civic-political behaviour, social security, diversity, inclusion, trust are spatially embedded. Hence, this means that many social resources and their distribution in society are the results of the spatial-physical interactions. Thus, summing up the discussion, we can assume that the physical space is a social and social relations are spatially embedded. Hence, physical spaces are rich laboratories for the formation of social relations. At the same time, we can conclude that transformations of the physical spaces can influence the change in social relations as well. Finally, even though the interconnection of the physical and social spaces have been widely studied, the connection of the digital space to the physical and social spaces remains less studied. As all spaces are somehow interrelated, we can assume that the analysis of online communities and interactions can open the new field for the conception of the interrelation between digital, physical and social spaces.

In this part, we have discussed that physical and social spaces are interconnected. Hence, we can assume that restrictions during the crisis as well as other spatial reorganisations will lead to various transformations of the social capital. In addition, the universalisation of digital practices and the emergence of the digital space can lead to changes in both physical and social spaces. This also intends that social activities and their nature may change as a result of the restrictions imposed by the pandemic. This refers to *necessary activities*, which are the actions that people conduct out of need; *optional activities*, which are the actions that people do only when there are good external conditions; *social activities*, which refer to the interactions between people.

2. Methodology

This section presents the methodology of this research in theoretical, methodological and practical level. The first subsection discusses the methodology at the theoretical level: what are the peculiarities of this theory, what is practice, and how it is discussed in various scholarships and theoretical ideas. The theory here does not refer to the concepts to be analysed but the methaphysical perceptions that each methodological freamework has. The second subsection discusses the research framework at the methodological level. In short, here is presented the empiricall approach on how we imagine this research should be carried out and what problems can arise, including social-psychologicalproblems. The third section is the methodology at the practical level. In other words the research design that we have been employed: description of the method, sample, the strategy of analysis, and limitations.

2.1. Theoretical Peculiarities of the Critical Practice Theory

In the framework of this research approach, at the *theoretical level,* several theories have been combined, which refer to the concept of social practices. This includes Boltanski's, Thevenot's pragmatism; Bourdieu's, Schatzki's practice theory; structuration theory of the Giddens; Foucault's concept of disciplinary dispositifs, as well as critical theory not as a theoretical framework but as research position. These all theories and concepts contribute to the understanding of social-spatial connectivity practices.

Critical practice theory is a combination of classical practice theory (Bourdieu, 1977; Schatzki, et. al, 2001; et al.) and critical theory (Tyson, 2014). In order to understand the critical practice theory approach to society and the analytical opportunities of this methodology, it is necessary to discuss these two approaches: classical practice theory and critical theory and their main methodological features. *Classical practice theory emerged* in the late 20th century in French social thought (Bourdieu, 1977). Theorists of classical practice theory believe that there are no absolute universal truths. This approach focuses on repetitive daily practices, life experiences, which create cognitive perceptions, and, consequently, develop certain patterns of behaviour. Knowledge about society, language, beliefs are viewed from the position of their practical application and social significance (Hargreaves, 2011). *Critical theory* was developed in the 1930s within Frankfurt School. This approach is not only a methodological framework for

research, but also a position to be critical towards existing social phenomena. Theorists of this approach aimed to bring social change by studying the lives of people of different marginalised groups, who have less opportunities to participate in social life and influence on social procedures (Rush, 2004).

The critical practice theory is an integrative approach that seeks to overcome the limitations of these two methodological frameworks. The research of this methodology presumes paying attention to both processes and structures at the same time. This approach is trying to overcome the methodological limitations of structuralism and constructivism and integrate structure and agency (Schatzki, et. al, 2001). The practice theory does not reject the importance of formal rules and other institutional variables, however, what is central is how people understand, interpret and apply the social norms (Boltanski & Thevenot, 2006). Knowledge is not essential here, but the process of its formation. Therefore, the analysis within this approach assumes continuous reconstruction of the daily practices (Kokkonen & Alin, 2016). This approach does not reject the importance of the structural variables but also does not underestimate the individuals' critical abilities (Ibid.). This means that internalisation of the social order is not a mechanical process but depends on the persons' habitus (Bourdieu, 1990). Hence, the supporters of this theory claim (Thévenot, 2007) that there is no universal, objective knowledge and what is more central is the daily practices and lived experiences.

In the critical practice theory several points are important during the analysis. First, the researcher should *understand the context* (Lammi, 2018), which implies that each case is individual and needs to be assessed based on its impact on individuals in a particular context. In other words, it is not the general contexts that are used here, but the specific cases, the specific situations. Second, this approach focuses on how the results were emerged in a *historical-social context* (Feldman & Orlikowski, 2011), evaluating processes, what were the initial goals, who were participants, how the process went, what factors influenced, what communication practices there were. Third, in critical practice theory, the positivist understanding of scientific rationality is replaced by *communicative rationality* (Beaumont & Loopmans, 2008) based on the actions of many actors. Forth, the analysis of power structures is central in this approach, hence, it draws attention to the practices that shape *power structures* (Smith, 1990). Finally, ethical issues also should be taken into account. If critical theory offered to "give a voice" to a more marginalised group through the analysis (Delgado, 1990), then critical practice theory offers an inclusive

approach to the issue.

The followers of critical practice theory argue that the social sciences should try to differentiate themselves from the natural sciences by trying to balance the role of the individual and social structures. Too often, social theorists build their theories from the standpoint of the system, ignoring social action and the most structured type of social action called "social practice" (Thévenot, 2007: 237-240). Social sciences should be human and social. Hence, they should try to get rid of the "sense of inferiority". It is a "complex" to have an accurate and objective social science (Ibid., 237-242).   There are also other approaches, which are trying to overcome "sense of inferiority" to have an objective science. One of them is the classical practice theory, however, it neglects the critical abilities of social agents. The advocates of this approach criticise those who try to "objectify" people's behaviour in order to avoid the "bias" of everyday social practices and ideological frames. They criticise realism and believe that social scientists should not try to find out whether something is real, objectively exists, but how social actors perceive, explain and apply social knowledge, which is based on agents' life experience and interpreted as reality (Ibid., 243).

The theory of the practice emphasises the relationship between the objective structures and individual agency. The objective structures are the product of the social-historical procedures and practices, which tend to reproduce themselves (Bourdieu, 1977; Giddens, 1984). Another central concept of the practice theory is *the habitus*, which is the internalisation of the objectively existing cognitive and behavioural structures through practices, which is in its turn "structuring the structure" (de Certeau, Michel, 1984: 170). However, we should not consider the habitus as a type of structure because it is developed as practice. The production of the habitus is not a mechanical internalisation of structure, it is a creative procedure, hence, it is continuously subjected to lived experiences (Bourdieu, 1977). The habitus of the individual is a social and cultural mental construct, which consists of various dispositions, values, beliefs and condition social actions (Bourdieu & Wacquant, 1996:1). These internal structures put the meanings under individuals' actions and qualify the social reality.

Practice theory is trying to interpret social activity in a subjective way, taking into account the external social conditions in which social practices are possible. Practical knowledge is an "unconscious knowledge" which accumulates through accomplished repetitive actions and

continuously subjected to reactions by other social agents, correcting and adjusting itself to the environment in which social practice becomes possible (Bourdieu, 1997). In many cases, social actions are unconscious and conditioned by practical state and not in their consciousness or social discourses (Ibid., 27). Practice is not a mechanical repetition of the actions. It is a well established, socially and historically formed social action. In other words, practice is an unconscious memory of the past, "forgotten" history of our life experiences. The external social, historical, economic conditions develop certain types of habitus and the habitus, in its turn, produces practices. It is, meantime, a product and the producer of the social actions. Moreover, people with the same social status, ethnicity, education, … persons experiencing the same conditions have the similar habitus (Ibid.).

"*In each of us, in varying proportions, there is part of yesterday's man. It is yesterday's man who inevitably predominates in us, since the present amounts too little compared with the long past in the course of which we were formed and from which we result. Yet, we do not sense this man of the past, because he is inveterate in us; he makes up the unconscious part of ourselves*." *(Bourdieu, 1997: 79)*

Similar to Bourdieu, the *theory of structuration* of Giddens (1979, 1984) tries to adapt structure and agency in the process of analysis, contributing the practice theory. According to the theory, social agents and structures co-produce each other. This manifests the nature of *duality of social structures* (Giddens, 1984: 25). Thus, the agency of the social agents constrained by social structure and in its turn, social structure reproduced or transformed through social actions of agents. Structure is the "*memory traces*" of the individuals, which have consisted of rules and resources and individuals are unconsciously "knowledgeable" about it (Ibid., 16-28). This memory traces can be domination, signification and legitimation (Ibid,. 2). Regarding the agency, Giddens claims that agents are continuously in the process of *reflexive monitoring* to evaluate and rationalise their actions (Ibid., 5). With the help of the action, agents reproduce the social structure, while through reflexive monitoring they transform the structure (Ibid., 28). Every social agent is constrained by structure, which is the unconscious and unnoticed knowledge of everyday life. In other words, the *practical consciousness* of the social agent condition the ability of the agent to act (Ibid., 4).

The next key concept in the practice theory is "*the dispositif*". These are the administrative,

physical, institutional and knowledge structures, which are trying to maintain power structures in society. Such mechanisms include discourses, architectural forms, institutions, regulatory norms, administrative measures and moral values. The *dispositifs* can be disciplinary, power, security, to name but a few (Fontana-Giusti, 2013: 80-96). This concept has been used to explain the emergence of the modern disciplinary societies as a practice (Foucault, 1977) and how the dispositifs are becoming the mechanisms of social control in society (Katyal, 2002). The concept of *dispositif is mainly* popular among French social scientists, especially in the writings of Michel Foucault. He was trying to explain how knowledge and power structures are maintained and reproduced in society through social practices (Foucault, 1977: 78). Like habitus, "dispositifs" combine the structure and agency and exercise in society through social practices.

While the classical practice theory neglects the critical capacities of the individuals, in the critical practice theory *qualifications* by agents are at the heart of the research and they are understood as elementary components of research activity, in general. This means that social action requires continuous efforts of comparison, agreement and identification (Boltanski & Thevenot, 2006: 1). In other words, people *rationalise* their social practices to justify their behaviour by giving quality to their arguments (Ibid., 12). In the framework of this approach, collective values and perceptions are also central: to rationalise their behaviour people usually reference socially acceptable collective perceptions. This approach also pays attention to *associations*. Associations are born when we talk about the existence of other people. Hence, the social order emerges on the basis of justified associations (Ibid., 30). Based on the mentioned theoretical generalisations, the research in the scope of this methodological approach should take into account several components: social practices, social qualifications, collective values, other people participating in the social practice, situations, temporal and spatial contexts (Boltanski & Thevenot, 2006).

Finally, each social activity happens in a certain spatial and temporal context. Hence, we can claim that social practices are spatially and temporally embedded. Thus, the application of the social practice theory can help to understand how connectivity practices have changed in social space, resulting in the emergence of new practices in digital space and refiguration and transformation of the physical space.

2.2.The Methodological Opportunities of the Critical Practice Theory

The scope of this study is the changes in human behaviour conditioned by the transformations of the physical and digital spaces. Hence, to understand human behaviour we could conduct observation, however, it would be difficult to appear in the personal spaces of the people during the pandemic. Similarly, conducting an experiment can last years and requires many resources. Therefore, the only way in this context to become aware of the individual practices of the respondents is to ask them. However, in many cases, people say and do different things (Small, 2017), hence, the application of the quantitative research methods, which generally suggest limited options of responses, can provide a narrow understanding of human behaviour. The main advantage of the application of the quantitative methods would give the opportunity to generalise the research results and find out associations between various variables (Vogt, 2011). Even so, the pandemic was a new reality, hence, there was a need to describe and interpret the changes of human daily organisational practices and how the digital transformation may influence possible changes in the social order. By this I mean, that to design a good survey the researcher should know what kind of variables he/she wants to measure. However, when we were starting to design this research project the transformations of the social practices as a result of the COVID-19 pandemic had not been well-studied in social sciences. Thus, the best decision was to turn to qualitative methodologies with open-ended questions, which will give the opportunity to the repondents to describe and interpret their experiences .

Second, the methodological decision to conduct qualitative research was conditioned by the fact that each social crisis has several phases in which people respond and behave in different ways. In the scope of this research, Fink's (1986) four-stage crisis model have been employed. Crises are situations when society undergoes drastic changes and individuals and groups do not have proper skills and experiences to cope with the situation (Jordan, 2011). Hence, the social actors and systems need time to adapt and readjust themselves to the situation. According to Fink, each social crisis passes through four stages: *prodromal, acute, chronic, and resolution* (Fink, 1986). The *prodromal stage* of the crisis starts *2020 January*, when the first case is confirmed and lasts until *2020 March*, when the first death registreated. The *acute stage* of the pandemic started from *2020 March*, when Angela Merkel addressed the people that the situation is serious, which was followed by the first partial lockdown and lasted until *May 2020* after seven weeks. The chronic

stage of the crisis started from *2020 mid-June* when the first coronavirus tracing application launched and lasted until *2021 January* when people started to receive the first vaccines. Starting from *2021 January* until now we are in the *phase of the resolution* (Bosen & Thurau, 2020)**,** however, the reflections of my respondents include the information until *2022 March*.

According to the Fink (1986), during the first stage of the crisis people do not have much information about the situation. Hence, people's main response is the unexpectedness and the denial of the reality: "Soon everything will over and we will return to the "normal" life". This phenomenon is called *conservative impulse* (Marris, 2014). However, the rejection of the new reality is not a negative consequence. It gives people time to understand the change. It is the first stage of the adaptation (Ibid.). The *acute stage* of the crisis starts when the main event launched. In our case, this is the first mass lockdown in spring 2020. In this stage, people can not wear the mask, break the general rules, people can try to find out "who is guilty for the situation" (Fink, 1984), blame each other and stigmatise (Ali, 2008), to name but a few. The *chronic stage* of the crisis started when the government started to operate coronavirus tracing app and people started to protest (Brady, 2020). In this stage, the health systems started to work overloaded, the trust in society declined, conspiracy theories have spread (Pummerer, Böhm, & et al., 2022), to name but a few. I consider the start of the *resolution stage* when the vaccine has appeared and people started to receive it. During that time there has been accumulated much knowledge on the COVID-19 pandemic and somehow people and the government know how to deal with the situation. Clearly, we are still in this stage where we continue to redefine, reinterpret and "learn lessons" from the experience of pandemic.

In this case, the application of the survey could be problematic. Now imagine that the researcher would go to the field and collect data in the first stage of the pandemic. In this stage, as I have already mentioned, people tend to "deny" the reality. Now imagine the procedure of the data collection, for example, in the third stage when there was a decline of the trust in society. Probably, the same respondents would give different answers to the same questions about their behaviour. The followers of the objectivist research probably would not take into account these psychological aspects. They accept reality as it is in the given moment. It is turned out, that in the search of the hope to find something "objective", in this case, there was a big risk that researcher could lost "objective" reality. However, I do believe that one of the principle of the

social research should be transparency (Miguel, Camerer & et. al., 2014). Hence, as an honest researcher, I should confess that in the beginning of the research it hadn't planned to take into account the multistage approach to data collection. During the spring 2021 information about human behaviour during the two stages of pandemic have been collected. Then, in spring 2022 the respondents have been contacted online and asked for more reflection about their behaviour during third and fourth stages of the crisis. Fortunately, all respondents, except one, agreed to reflect on their experience again.

What is important to stress is that the application of the qualitative methods allows a more interactive process: researchers could go to the field again and again, refine its initial expectations, change its initial methodological decisions, to name but a few (Whyte, 1984). The flexibility of the qualitative research helps to form more in-depth understanding on the process, which would not be possible if I have conducted a survey. Needless to say, with the application of qualitative methods we couldn't speak about representativeness of the results, however, the application of the qualitative methodology equipped us with the in-depth understanding of the transformations of the social practices. Moreover, I do agree that the survey could provide more representative results and it would be interesting to find out statistical associations, however, it would require much resources to conduct face to face interviews, while the application of the online surveys would also be problematic. The biggest disadvantage of the online surveys is that we couldn't ideally ensure probability sampling, so as each respondent has the equal opportunity to appear in the research sample (Fienberg & Tanur, 1983). Hence, decision to "trust" in-depth interviews was the best possible option.

In the framework of this study, we do not try to test out original hypotheses and confirm or disconfirm them (Merton, 1967). Even though there are suggested expectations, in this context they do not have the indicative but directive functions for theory building (Layder, 2005: 15-18). In the framework of qualitative methodology, we neither try to build a new theory nor to confirm the structural changes but the heuristic and the promise of the qualitative methodology is the explanatory, descriptive and interpretive possibilities of its application (Ibid.). Even though the qualitative methodology is the best possible option to address this research questions, in its turn qualitative in-depth interviews could have their limitations in the process of the understanding of the social practices during the fieldworks. Hence, a researcher should not only

consider how the chosen methodology can help to solve the research puzzle and the analytical opportunities of it but also social-psychological problems that could happen during the interviews.

The first major problem that can happen is that what people actually do and what people believe they do can be different. To put it another way, people tend to present their belief as a reality (Killworth & Russell, 1976). From their research experience, many researchers would confirm that people generally represent their associations rather than reality (Levine & Higgins, 2022). This means that people either can not be aware about their actual behaviour or can intentionally conceal the truth from the researcher. However, people remember their life events better than circumstances associated with it (Small, 2017: 190). Hence, if you want to know, for example, with whom people have been connected during pandemic, it will be better to help the respondent to reconstruct the event first and then, ask questions about the actors associated with the event. Moreover, people tend to remember recent experiences better than distant memories (Schwarz & Sudman, 1994). This is the reason why the interviews have been conducted in two waves with the same group of respondents and asked questions once regarding the first and second stages of the crisis and then third and fourth stages. Hence, people have not be forced to remember distant memories. In sum, conducting the interviews in two phases has been a prior methodological decision and it helped to alleviate the risks that people would present their associations, rather than actual practices.

Second major problem is that people are social beings and they tend to present themselves and their actions in the positive light. For example, when you ask random people to tell about them, they probably will tell you about their hobbies, talents…very likely, few people will tell you that they are irresponsible or dishonest. When you ask the people to tell about their behaviour they represent themselves as rationally motivated (Small, 2017), which means that information, whey provide, rather can be correct but may "sound good" in their opinion. In other words, people tend to rationalise their behaviour with the norms and values, which are coming from common sense. To alleviate this bias, many social researchers use the technique of counterfactual *questioning,* which intends to understand human behaviour in the circumstances if conditions have been different (Small, 2013). For example, A respondent can say that he/she have approached to **B** to ask support for m question because he/she had n motivation. We can ask the respondents whether

he/she would approach B if circumstances have been different. The technique helps the respondent to reflect on their behaviour and gives the opportunity to the researcher to understand real motivations of the people.

Finally, another problem is that people represent themselves as intentional actors. Hence, when you ask people why they have you done something, they probably will give some justifications and few will say "I do not know" (Small, 2017). However, in many cases the explanations of the social actors may not discover the real reasons of their action. For instance, social action can be goal-rational, value-rational, affective or ritualistic (Weber, 1947). However, people always represent themselves as goal-rational social agents (Nisbett & Wilson, 1997). Hence, to alleviate this bias the technique of counterfactual questioning have been used during interviews. Interestingly, qualitative methodologies require active involvement of the researcher, who helps the respondent to reflect, reconstruct their actual experiences, while surveys suggest preconceived concepts and responses (Smith, 1992). Probably, many of the respondents would not thought about the responses that researchers suggest in the questionnaire, hence, the application of the qualitative methods remains the best way to understand social practices in this case.

2.3. Research Design: Understanding the Critical Practice Theory in Practice

The Information Collection Method: The research in the framework of the practice theory intends reconstruction of the lived experiences. Practices are a set of actions as well as internalised social structure (Schatzki, 1996). Hence, the *qualitative in-depth interviews* in the framework of practice theory seek to understand how people perform an action or carry out the practice (Ibid., 90). Moreover, practice is also an internalised social order, hence, the interviews have intended to understand how people rationalise their actions referring to certain group perceptions and beliefs (Bourdieu, 1977). The qualitative in-depth interviews cover the period of the 2020 January and 2022 March. The interview guide consists of four sections, taking into account prodromal, acute, chronic and resolution stages of the crisis (Fink, 1986). The in-depth interviews have been focused on more "what people do", rather than "what people think". Hence, several research techniques, such as counterfactual questioning, have been applied to alleviate risks, which can arise during the interviews.

The Sample: To fulfil the research goals qualitative in-depth interviews have been conducted with *educational and labour migrants* to understand their experiences during the pandemic. At the beginning of the project, I knew that I wanted to analyse those who are not the "native" members of the group. As a social researcher I am interested with those who are more marginal in society. However, my methodological choice does not depend on merely my personal "tastes". My methodological approach combines practice theory and critical theory at the theoretical level. The latter also is a position to be critical, and intends through social research give "voice" to the more marginal members of society or those who are marginal or disadvantaged in the given social situation. The subject of the study is inspired by the concept of the "stranger". The stranger is a unique social type who participates the group activities, however, remains distant from the "native" members of the group. A stranger is a person who is physically close, however, socially and culturally distant from the "native" members of the group (Simmel, 1908; Park, 1928; Bauman, 1991). Hence, migrants could provide perfect analytical opportunities for this research project. However, migrants from various historical-geographical regions have different habitus, hence, some homogeneity between the respondents have been taken into account. For instance, the migrants from Africa and post-Soviet countries have different social background. Therefore, their social practices would be different.

I decided to conduct the research with the people from post-Soviet space. The methodological choice of the respondents has been made taking into account the social-historical homogeneity of the development of respective societies. Generally, the respondents were from middle-class and young, middle-aged people studying or working in Berlin. Compared to Africa living standards and the level of economic development are higher in post-Soviet space. Therefore, it was presumed that their habitus will allow them to "invent" new social practices of connectivity rather than will lead to social alienation. The educational and labour migrants do not have strong ties in the new urban space, hence, most of their social connections in the new urban environment consist of weak ties embedded in the organisational context (Granovetter, 1973). On the one hand, this social type did not have strong ties in the new urban place, on the other hand, they had lost the organisational social capital as a result of lockdown. Hence, they would be more likely to seek help, to try to connect with other people, which will lead to the invention of new practices. Finally, the subject of this research was not asylum seekers or those who were supported by any humanitarian organisation like UNHCR or state institutions. In the freamework of this research we were more interested in the role of the social agency incorporated in social practices. Therefore, organisational support would be a limiting factor. Hence, organisational and labour migrants were the perfect social group to understand the transformations of social practices.

Table 1: Sample		
	Male	Female
Educational Migrants	5	5
Labour Migrants	4	4
Total: 18 interviews		

The Fieldworks: The fieldworks have been conducted in two phases. The first wave of the interviews have been conducted during the Spring 2021 in face to face format. Almost a year later, during the spring of 2022, the respondents have been contacted again via zoom and asked to reflect on their experience again. All respondents, except one, agreed to give the interview.

The first wave of the interviews refers to the first and second stages of the pandemic and the second wave of the interviews covers the third and fourth stages of the crisis. The interviews should be conducted in the well-urbanised space because social capital is more heterogeneous, weak social ties are more common and people are less supportive than, for example, in the small cities or communal areas where people have more connections. Hence, Berlin was a good place to conduct fieldwork. What is more important that Berlin is well industrialised, less communal, diverse in its ethnic and social terms and social relations are more institutionalised and impersonal.

The letter have been prepared, which contained explanations about the aim of the research, how research results will be used and asked for the participation of the respondents. Initially, the letter have been spread through the university online platform, where there were many students. Some of them agreed to give an interview. Then, they recommended their acquaintances and helped to recruit interviewees. In other words, the *snowball sampling technique* have been used. This method is used when your key informants are not easily accessible (Naderifar, Goli & et al., 2017). When the research was in the phase of the fieldworks, a few days later a lockdown started, hence, the snowball technique was the most appropriate option in that case. It was very challenging for a researcher to conduct fieldworks in the conditions of the lockdown. However, the application of the snowball technique helped to recruit the key informants.

Table 2: Ethnicity, Occupation of the Respondents and Other Details				
Counry	**Number**	**Occupation**	**Duration**	**Format (online/in person/hybrid interview)**
Armenia	1	student	2h 34m	hybrid
Armenia	1	labour migrant	3h	hybrid
Azerbaijan	1	labour	2h 15m	in person

		migrant		
Belarus	1	student	2h 28m	hybrid
Estonia	1	student	2h 15m	hybrid
Georgia	1	Labour migrant	2h 49m	hybrid
Georgia	1	student	2h 48m	hybrid
Georgia	1	student	2h 13m	hybrid
Kazakhstan	1	student	2h 17m	hybrid
Kazakhstan	1	labour migrant	1h 23m	hybrid
Kyrgyzstan	0			
Latvia	1	student	2h 25m	hybrid
Lithuania	0			
Moldova	1	student	1h 34m	hybrid
Russia	1	student	1h 45m	hybrid
Russia	1	labour migrant	2h 29m	hybrid
Tajikistan	1	labour migrant	2h 14m	hybrid
Turkmenistan	0			
Ukraine	1	student	2h 50m	hybrid
Ukraine	1	labour migrant	2h 25m	hybrid
Uzbekistan	1	student	1h 47m	hybrid
Language of the interview: English				
Total: 18 interviews				

In total, 18 interviews have been conducted. In the scope of this project, I was not interested in representativeness of the research results but breadth of the information (Gilgun, 2014). Hence, 18 interviews well support my empirical analysis. All interviews have been conducted in English. The language does not have a neutral role in the coding process (van Nes & Abma, et al, 2010), hence, it is important to conduct the interviews in the same language to alleviate the cultural and linguistic differences of the respondents, rather than translate the transcripts into the the same language. The interviews have lasted from 1.5 hours to 3 hours. The interviews have been anonymous and all ethical standards have been kept, such as informed volunteer participation in interviews, to name but a few (Bos, 2020).

The Data Analysis: After the fieldworks, the interviews have been transcribed and subjected to thematic analysis (Braun & Clarke, 2012). The collected information is subjected to double coding: the *pre-coding*, which intends general reading of the texts and highlighting the parts, which seems relevant in terms of research questions and writing the memos, which will support the theory generation procedure; *provisional coding*, which intends labelling the parts of transcripts, which are related to a particular concept or an idea (Layder, 2005: 53-56). In addition, negative case analysis has been employed, which is a procedure when the researcher tries to find some aspects of the phenomenon, which is contradicting the emerging patterns (Gilgun, 2014: 658-676).

In this project, methodological decisions based on theory. As a researcher, I am not fond of methodological approaches which are based merely on empirical data, such as grounded theory (Charmaz, 2014), phenomenological research (Moustakas, 1994) or poststructuralism (Given, 2008). As you already noticed, all methodological decisions are "inspired" by various social theories. However, the aim of this project is not to confirm or disconfirm hypotheses. In the qualitative studies they can completely be absent (Gilgun, 1995). In this research, the theoretical concepts, which have comprehensively been discussed in the previous chapter, mainly have directive, rather than indicative meaning (Layder, 2005: 100-129). This means, that during the analysis, the information have been "approached" with "theory in mind" (Ibid., 66-77). In addition, when the project launched, *research diary* have been kept, which contains researcher's reflections as a participant observer, impressions and observations. Needless to say, that the researcher is also a part of the research project, hence, who can be more "objective" and "close

to reality" than a participant observer? Thus, the notes and observations from the field have helped a lot during the analysis as triangulation to enhance validity of the results (Bans-Akutey & Tiimub, 2021).

Limits: As have been argued earlier, the aim of this study is not the theory-test but the theory-construction (Rose, 1984; Lewins, 1992). Hence, even though the experience of the 18 respondents can not be generalizable on a national level, the application of the qualitative methodology can be foundational for the understanding of the transformations of the social practices during pandemic. Moreover, as thoroughly have been discussed earlier, the research questions, which intended to be answered, will not be possible to solve with the application of quantitative methods.

3. Research Results and Analysis

This chapter is based on empirical research results. The first subchapter reveals the influence of the temporal and spatial context on social connectivity practices, how people create and lose social capital during various stages of the crisis: prodromal, acute, chronic and resolution, how they make decisions to connect based on certain cherecteristics and how the habitus of the respondents influence on the transformation of the social-connectivity practices. In the second subchapter we compare social connections in digital and social spaces, describe how attribute, situational and structural similarities maifest themselves, interpret how organisational practices influence on transformation of the connectivity practices and compare necessary, optional and interactional social activities in online and offline spaces. The last subchaper dedicated to describe how space have been transformed as a result of the spatial restrictions imposed by pandemic. In adition, here is presented the transformations of the functions and the use of the space. Morover, the chapter describes the influence of the mass degitalisation on the trasformation of the space. And finally, we interpret how the interconnection of the physical, digital and social spaces manifest through social practices.

3.1. Creation and Loss of the Social Capital During Covid-19 Pandemic: The Patterns of Social Connectivity

Initially, it was expected that the social practices of the respondents should be different during the various stages of pandemic. Not surprisingly, the research results show that temporal and spatial context strongly influence social agents' connectivity practices. To form social ties it's very significant what people do, with whom and where. If someone asks us "what the university is for" we will probably answer "to receive education". However, we should remember that education is not mere the exchange of the information for which we receive some credentials, such as a diploma, which we can later convert to economic capital and position us in the labour market. Education is also an aggregate of various social practices. Now imagine Aisaule[1] from Kazakhstan, one of my respondents, a bachelor student at the university. Besides doing assignments, passing exams or other university related activities, Aisaule used to go to the

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[1] In this research I do not use the real names of the respondents. All names used in this research are pseudonymised.

library, where she can *accidently* meet one of her old coursemates-Emma. During the break they can go to drink coffee together and Emma can share information about job opportunities. It is very important to mention, that the meeting of Aisaule and Emma was *not purposely* agreed in advance but depends on the fact that Aisaule and Emma, meantime, was in the university library. Now imagine that Aisaule and Emma are each of us and the exchange of the information on job opportunities can be every other types of social resources. Social agents are all embedded in social relations, which increase their social potential. The COVID-19 pandemic is an interesting natural experiment where social agents' lose the organisational context of their life and *unintentionally accumulate social capital*. Thus, let's discuss how my respondents create and lose social capital during various stages of the crisis.

The research results show that during the *prodromal stage of the pandemic*, which corresponds to the period when already there were some confirmed cases, however, lockdown has not started, we can notice the *activation of social ties*. This refers to both strong and weak ties. During this period people mention that they are more often connected with family members, friends or just acquaintances. Interestingly, during this period people also "updated" connections with those with whom they did not have connections for a long period of time. This refers to both their connections in their local places or outside of it. In this context, communication technologies had the role of the catalyst of social connections. Interestingly, the research results show, even though the occasion of the connection has been confirmed, the topic of the conversation has not always been about COVID-19. They have communicated with different topics. This means that the content of the communication has been less important than the fact of activation of the social ties through various connectivity practices, which led to the *accumulation of the social capital*. Probably, we can assume that before the crises people accumulate or activate social capital, which can become a support system in the case of a catastrophe. In this phase, there is less information about the situation and there are lots of uncertainties, however, people do not expect that they will need social support. Hence, the a*ccumulation of the social capital is an unintentional social procedure* and people do not connect because they expect that they will need social support.

"When the first cases [of coronavirus] were confirmed, it seemed like a very interesting phenomenon. It was interesting to read about it, to discuss with others, but in the meantime, it was interesting that everyone started to call, suggest help, even people with whom I usually did

not have much contact or had not talked or met for a long time." **Male student, Russia**

"..I liked it when everything was new. During that time we used to discuss the virus a lot with my colleagues, even those with whom I usually did not have been close. Moreover, during this time my old acquaintances from Georgia were writing to me a lot, asking how the situation was here [in Berlin] ... it happened that we started to communicate on other topics, to remember the old days." **Female worker, Georgia**

The *acute stage of the crisis* corresponds to the period when the main event of the crisis, the first partial lockdown, has happened. During this period the respondents continue to keep *their social ties*. The main pattern of the responses show that, generally, people continue to stay connected with strong ties. Not surprisingly, strong ties are more durable, hence, the physical proximity does not influence the accessibility of the strong social ties. The social connections of people with strong ties remain international and people exchange the main resources with strong ties. By contrast, in the acute stage of the crisis, people mostly lost their social interactions with weak ties. Generally, in this period social agents even did not try to be connected with weak ties, hence, the absence of interactions led to people losing their weak ties.

"When we started to stay at home in the spring, I started calling and chatting more with my family members. Before that, there was not much time because of a busy study routine. During that period, I did not communicate with my colleagues at all, I only met my classmate once, with whom we are close." **Female student, Kazakhstan**

What concerns the *chronic stage of the pandemic*, we witness the most interesting changes in this phase. In this period, the uncertainty was deepening, conspiracy theories were starting to spread, the trust started to decline and personal issues and needs had become more evident. Hence, people have become more inclined to connect with other people, for example, seek help. Interestingly, as the pandemic lasted, the structure of the social network had become less relevant. What has become more pivotal is whether the social ties are available and accessible. In this period, strong social ties had become less supportive and people had become more inclined to approach weak ties. Theory says that strong ties provide support, while weak ties provide information (Granovetter, 1973). In practice, the experience of the people during the pandemic comes to reject this assumption. During this phase of the crisis the strong ties lost their function to provide support. The question is not whether the social agents' feel close to each other but

whether they are available. Hence, the nature of the social ties and the resources embedded in social ties have been transformed. The strong ties started to become the sources of information, while weak ties, which are more accessible, had become the source of social support. In sum, what is central is not the structure of the social capital but whether, in practice, the social ties are accessible.

"I'm not a very sociable type, and before the pandemic I did not know others in our dormitory, but even for introverts it was very scary to stay closed for long. Sometimes, I started to go out with a girl from Syria to walk, we even have become so close that I started to trust her a lot of personal things. It's really unusual for me…" **Male student, Latvia**

"…I remember that the door [of the house] was locked and I could not open it. The intended service was not available at that time. Here it is not like Azerbaijan, people are cold and I did not know my neighbours well. But, you know, that is a stereotype because my neighbours offered to help and opened it even though I haven't asked for it." **Female worker, Azerbaijan**

Finally, in the *resolution stage of pandemic*, there were some level certainty about the future and knowledge on the ways how people can overcome it. What concerns the social capital, in this stage some reorganisations of social ties had become more evident. During this stage people *replace* some strong ties with weak ties. Even the strongest ties needs inter practices to remain supportive. Meantime, the repetitive social interactions led that people share common practices, exchange some social resources and develop common sentiments. What is more central here, the question is not the frequency of the contact but the physical proximity. During the all stages of pandemic people may keep contact with their strong ties. However, it does not mean that they can be the part of the support system.

"…when you interact with someone a lot, you get closer, even if you would not communicate with such a person in normal times, we are so different. We met by chance [during the pandemic] and I did not imagine that she would become one of my closest persons in this world." **Female student, Armenia**

Interestingly, during the first stages of pandemic people connected more with the people who are more similar to them, for instance, people with the same nationality, age, position, to name but a few. To put it another way, during the first stages bonding social capital were the main source of

exchange network and social support. For instance, the respondents mentioned that they have received emotional aid and some services from the people who share some similarities with them. However, as pandemic lasted social capital has become more heterogeneous and people have started to receive and provide social support with wide-range of people. Hence, nationality, position, age and other kinds of attribute similarities are less relevant in the context of exchanging social resources. The connectivity patterns vastly depended on the fact whether people share the same problem and whether they were accessible with each other. We can assume that the external danger of the pandemic led the rise of inner solidarity and activation of the bridging social ties, which led the heterogenization of the social capital. Hence, this means that *the range of the social capital is less relevant than the common experience* in this context.

"I do not usually communicate with Russians. No, I'm not a racist, I just think we have a serious reason for that. But we have a neighbour, who is Russian and she was alone during the pandemic. Sometimes, she asked me to buy food for her and I couldn't reject old women, because she was alone here. Otherwise, I will never help Russians." **Male worker, Georgia**

To conclude, the experience of the labour and educational migrants during the pandemic shows that the structural variables, such as strength of the social tie, range of the network, similarity between social agents, exclusivity of the social ties are less relevant in the context of connectivity patterns during the crises. This means that, in practice, people can receive social support and information both from strong and weak ties. Moreover, similarity/dissimilarity between social agents in the context of crisis can play little role. Hence, people can receive help, trust those who are not similar to them. What is more relevant is whether social agents share common practices together and whether they are accessible with each other. Hence, there is a need to shift the research lens from structure to practice. Moreover, these theories on social capital have been developed in more structured societies, such as the US. Hence, I do not try to underestimate the value of structures in network analysis. However, social order and connectivity practices in post-Soviet space are different from those in western societies.

In post-Soviet countries we cannot claim that there is a traditional low, middle, high class as it was theorised in classical social theory (Machonin, 1993). Even though Germany also has a well-structured society (Scheuch, 1988), *habitus* of the people from post-Soviet countries may play a role. Many post-Soviet countries are transitional societies and even after almost thirty years, social institutions have not been well-developed (Omelicheva, 2010). Hence, social capital has

become a compensatory mechanism. For example, if you are sick and you need an expensive surgery your medical insurance probably will pay your expenses in Germany. However, in the condition of the poorly-developed medical system, your social capital can become your "medical insurance" because not in all countries health insurance is compulsory (Kujawska, 2017). By this I mean, that your relatives can pay for the surgery. As the main source of support is the social capital in many spheres of life rather than state institutions, social ties are always active, which leads to the accumulation of high social capital. This argument in varying degrees can be applicable in most post-Soviet countries. Hence, internalised social structures in their home countries incorporated in their *habitus* have become relevant in connectivity practices during pandemic.

3.2.The Comparison Social Connections in Digital and Physical Spaces

To form social ties social agents needs some level of trust towards each other. Generally, people are more likely to trust those who are more similar to them (Flashman & Gambetta, 2014). As we have discussed earlier, these similarities can be based on different features. Hence, we have described three kinds of similarities: attribute, situational and structural. Interestingly, all these features manifest themselves in different ways in online and offline spaces. The *attribute similarity* refers to the socio-demographic characteristics of the social agents, for example, race, age, social status, to name but a few. The research results show that attribute similarities play a role during the decision-making process with whom agents will connect to share personal information or ask for help. In physical spaces, these socio-demographic characteristics of the people are more evident. For example, people can approach and make contact with those who speak with the same language, have similar appearance, to name but a few. However, in online communications attribute similarities are not so definite. By this I mean, that the representation of the self is pivotal to form social ties. What concerns social media, such as Facebook, Twitter, etc., people have the opportunity to represent their attribute features. However, in online eduscapes/workspaces, such as zoom, skype, etc., social relations are more "faceless" and attribute similarities may not play a role in tie formations. Hence, the research results show that most of the people did not create social ties whith others if they first met in digital space during the pandemic.

"In the semester during which I studied online, I do not created connections with the new coursemates with whom I had not had relations before the pandemic, no connections were established, probably because most of the screens were "black" in the zoom all the time."
Female student, Moldova

 "When the lockdown started, we had a new employee in our company, but during the pandemic we cooperated very little…and then when we could work in the office we were not communicating much because he is not so integrated in our team. It seems to me that we did not cooperate from the very beginning and it continues even after [when they could work offline]."
Male worker, Ukraine

The *situational similarities* refer to the cases when social agents are the part of the common social event and they share the same problem. In the physical space people are more often participating in common activities. Hence, it is more possible that people will be aware of each other and exchange resources. Moreover, the research results show that social connections in physical space can be spontaneous or non-intentional. However, to connect in the digital space social agents should have "important" reasons to connect with each other. Hence, social practices of connection in physical spaces can be non-purposive, while in the digital space social agents are more rationally motivated in their activities. From the first sight, these rational social actions are "desired" and universal social values and ideals than, for example, "social actions with "no reason". However, it should be noticed that not all the social agents' habitus allow people "rationally" engage in digital space. Some social groups, such as older adults, may not have digital skills; some social groups, such as my respondents, may not consider "too important or time-consuming" to engage in digital social activities, to name but a few. Hence, social actions, which seems "non-purposive", hence, "non-important" can create and sustain social inequalities, even among social groups, which seem non-vulnerable. Non-purposive social actions are well-integrated in our social communications, hence, we do not pay attention to them. However, it does not mean that they are insignificant in our lives. They contain and hold private and public social goods.

"I may have a question during offline lectures and I would ask, but I, definitely,will not write an email to the lecturer,it should be a very serious issue. I will just Google it. It's not interesting to be involved in online forums, it takes a lot of time and pressure." **Male student, Uzbekistan**

"At work [when they work offline], I can ask questions about the code if they [colleagues] are next to me, but, otherwise, I will try to find it from the Internet. It may take longer, but I probably won't call or email [for help]." **Male worker, Russia**

The *structural similarities* refer to the cases when social agents have the similar position in the social structure, for example, they are both students, they are both junior programmers or they are both mothers. In this context, there is no evident case, which shows that there were sharp differences between social practices in online and offline spaces. However, in this case, people connected with each other not because they share structural similarities but structural-institutional *obligations*. For example, students who do not have in-person connections previously had organised meetings to prepare group work during pandemic digitally. However,

the question is not the structural similarities. The same way, a student had met with the supervisor, with whom they do not have the same position in the organisational structure. Hence, structural factors may influence in online and offline communications, however, what is more central is the social obligations, rather than homophily based on positional similarity. Hence, structural similarities are less likely to be affected in digital or physical spaces.

"...during the pandemic, I met my coursemate to do group work. It was not very uncomfortable, we did not even know each other before, but we had to work together as group members." **Female student, Estonia**

In the same way, *organisational practices* have influenced whether people have been connected with other people. In many cases, organisations had been effective "brockers" between two social agents in digital spaces. For instance, the respondents mention that in some cases, they have to complete some organisational task, which requires *cooperation*, hence, connection in digital space. Moreover, in some cases, respondents who have been forced to cooperate multiple *times and contexts* have "moved" their social connectivity practices from digital to physical space after the lift of the COVID-19 restrictions. Further, organisations may create a common background, which can create a sense of belonging to the same social group/organisation between various agents, which promotes trust and connection between social agents to connect for an organisational task. In other cases, organisations themselves had been "innovators" of connectivity practices. This means that agents have not been "social innovators" but the members of the organisation have made connections with others in some way. However, what is more problematic is that companies and firms are "self-interested" organisations. Hence, they may create effective common practices in digital space to accomplish organisational goals. However, in case of the universal digitalization, which seems "ideal" for many, whether digital organisational practices can satisfy other needs, which are not manifest, however, important social functions for society, for instance, could organisations create such effective practices that two remote workers exchange emotional resources?

"At first, it was very inconvenient to call with phone, to have meetings related to the thesis online, but later we started to move the meetings to the park. Once a week we were going to the park and were walking with the professors for half an hour. The "walking" had become a method of teaching. We also used to meet with the lecturer in small groups in the park and have

discussions in public place. Previously is used to be "Think and drink" colloquium, now it had become "Walk and think" colloquium…" **Female student, Ukraine**

"We did not know each other before the lockdown, but we had group work several times during that time. When the restrictions eased, we decided to go for a walk together, even though we no longer had classes together." **Male student, Armenia**

People engaged in social practices to accomplish some goals. The research results show, that depends on the spatial context, performance of the social practices differ. The *necessary social practices* people conduct out of the need, for example, complete the task in the workplace, do a presentation, to name but a few. The *optional social practices* are those which social agents conduct when there are good communicative context, for example, have a small talk with a colleague during the coffee break, ask questions to the lecturer during interesting discussion. Finally, *social interactional practices*, which refer to social agents' interactions, for example, smile, interact through gestures, to name but a few. The research results show, while before pandemic most of the necessary and optional social practices are embedded in physical space, during the pandemic these activities "moved" to digital space. While social interactional practices are embedded in the physical space. In the digital context, these activities cannot be exchanged as they require physical interactions. In some digital spaces social agents can see, for example, the emoji of the "care" and social agents can know that it signify "care, solidarity", however, they cannot experience it through practices.The emoji of the "care" has a symbolic character but people can not experience it as a social practice. Hence, in digital space social practices are "emotionless", which means that emotional factors are less important in the context of social tie formations.

"…when it comes to online communications, you write, call, connect when you have a good rational reason. I do not think that during the pandemic anyone will connect via the Internet for emotional help issues." **Female worker, Georgia**

To conclude, the research results show that the spatial context is decisive how social practices will be performed and which factors will influence in the formation of social ties. This means that the nature of the social activities depends on the social practices, rather than the structural variables of the group. The structural variables, such as attribute, situational, structural similarities, have been transformed in the context of social connections when spatial context

have changed from physical to digital space as a result of pandemic. Moreover, types of activities, such as necessary, optional or interactional is also space dependant and the change can influence on the motivations of social agents to perform in the certain ways. Further, organisational practices can influence how social agents will perform in different spatial contexts. Hence, whether social organisations promote practices which require social cooperation or not, can influence the nature of the connectivity practices. Finally, we could not predict whether these results will be applicable in future. First, it is difficult to predict how digital space will be transformed technically in future. Second, most of us, including my respondents, have been born and socialised in a world where physical social practices are dominant. If we suppose an imaginary generation, which will be born and socialise in the reality where digital practices will be dominant, maybe their habitus will allow that their social interactions will be more engaged in digital, rather than physical space. As a rule, linear predictions turn out to be wrong in many cases, because the societal change is very unpredictable.

3.3. The transformation of the Space: Interconnections of Physical, Digital and Social Spaces

The concept of "quarantine" is a pure disciplinary-security *dispositif* in Foucauldian (1977) sense, which have been administered through various social-spatial practices. This is a heterogeneous "tool" consists of *spatial segmentations*, such as separation of the space from the everyday environment through walls, for example, hospitals; *isolation human body* from society so as "every individual has his/her place, every place to his individual" the elements can replace each other, but here the unit of domination is neither the place nor the space, but the order (Foucault , 1977), such as "self-quarantine", "self-isolation" or urban signs of the distancing; *administrative measures*, such as closure of public spaces; *ethical proposals*, such as "keeping social distancing"; *regulatory laws*, such as "wearing masks"; and *moral imperatives*, such as "save the world". These were all operating interrelated and, Foucauldian sense, was an "effective" way to "transform", "educate", "correct" social agents (Ibid.,15), in order to protect from being infected with COVID-19.

It is easy to notice that most of the COVID-19 related practices intend *spatial reorganisations*, for example, closure of the public spaces, mass universalization of digital technologies, prohibitions of physical contacts and coexistence human bodies in the physical space, meantime, moral imperative of "social solidarity and being connected", ban of the collective events, stigmatisation and space-related social fears, to name but a few. The COVID-19 releated measures intend spatial refigurations in physical, digital and social spaces. However, what is more central, whether these transformations were situational or "new normal" had become "normative normal", changing heterogeneous and interpenetrated spaces in which societal life take place. Hence, it is important to understand and describe what kind of transformations took place in each space as a result of the introduction of the COVID-19 pandemic related practices.

In agrarian, pre-modern societies social practices are homogeneous, for example, most of the people were living in the villages and they were engaged in agricultural practices, for example, cultivate land or to be engaged in cattle breeding. This means that the space of the pre-modern villages were more homogeneous, for example, "the field" is the place for the cultivating land and that is all. As Durkheim put it, the modernization characterised the division of labour (1897),

hence, social practices. This means, that one can be a teacher, the other one can be a taxi driver, to name but a few. Hence, modern cities have emerged as spaces of heterogeneous and differentiated social practices. For example, teacher can go school to teach. Hence, "schools" are places for teaching and studying. By this I mean, that the space is differentiated and each place has its functions. However, when the spatial restrictions were imposed, people during the first stages used to keep physical distance. Interestingly, as the pandemic lasted people started to "reinvent" sociality through new social-spatial practices. The old places stared to be used in the new ways. This, especially, refers to the public spaces. Therefore, social practices and spaces have become *multi context*. By this I mean that the same place social agents can use for different and multiple purposes, for example, one uses the park for studying or jogging. Thus, we can claim, that the clear-cut functional differentiation of the space, typical to modern spatial relations are becoming less relevant. This procedure has been fostered by COVID-19 pandemic and refiguration of the space continues.

"...during the lockdown, it was common for us to have small group works and lectures in the park, which was much more interesting than online communication. In that way we were all more involved and the lectures seemed more interesting." Male student, Kazakhstan

"[during the crisis]... I used to ate in the kitchen, work in the kitchen, organize my rest in the kitchen. All the "performances" of my life took place in one space. It was like a theatrical play, where the "stage" do not change, but you constantly have to change the decorations and actions." Female worker, Georgia

Second, people are social beings and they always go there, where there are other people. This is the reason that we always complain from the queues but unconsciously go stand near the corners of doors or ladders. It is impossible to "cancel" sociality just because we receive social resources from other people even though we can be unaware about that exchange. We can not personally know strangers in the street at night but their presence creates guarantees for social security, for example, in the busy night street it is less possible that someone will commit crime, stealing your bag. Hence, spatially co-present social agents are always important sources of social resources for each other. As the pandemic lasted, people started to search for ways to get together. This led to the *transformations of the functions and use of the spaces*, for example, dancing in the street in the conditions of closures of pubs. It turns out that the street, which had not been designed for

leisure time activities, changed its functions and meaning. Therefore, social events and connectivity practices widely contribute to reorganisations and emergence of the "new" spaces.

"When the pandemic lasted, the pubs and other public areas were closed for a long time. Even people like me, who are not extroverts, really wanted a good party [laughing]. Sometimes we gather in the park or just on the street, where we dance and drink. Some streets have become full-fledged "pubs" at the time." **Male worker, Ukraine**

The third important spatial transformation is mass *digitization*. During pandemic social agents were, meantime, could be in the different places and conduct multiple social practices in which they had multiple social roles. For example, one can study in the one city, while working remotely in another city. This means that social agents from different spatial dimensions can be digitally *represented* in the virtual space. Hence, people from one territorial space can have an influence on the other spatial dimensions. Even though COVID-19 measures have been lifted, some practices and concepts have remained. For instance, "digital nomads", who can live various places, while working in the remote way. Moreover, digitalization of the space intends the change of the structures of social relations. In the digital space social communications are more decentralised in their nature. To prove this, we saw in the previous subchapters that many structural variables, such as strength or range of social ties have become less relevant in social connectivity practices. Further, digitalization fosters interpenetration of numerous social spaces and getting together social agents with various habitus. By this I mean, that social capital includes all other kinds of capitals, as we saw previously, including economic, cultural and symbolic. This means, that as a result of the digitalization space have become more heterogeneous.

"I was living in several cities [during pandemic]: I am studying in Berlin, I had a project in Amsterdam, which I was working on at that time and, meantime, I was emotionally connected with my family in Moscow. It was like being three different people, in three different cities, with different roles". **Male student, Russia**

Further, we see that the opportunities of exchange of the social resources embedded in social capital are spatially conditioned. However, the needs to receive full varieties of these social resources remain among social agents. Hence, people "reinvent" new social connectivity practices to reach these resources to meet their needs. Thus, continuous refigurations and

reorganisations take place in social, digital and physical spaces to "readapt" the changes happening in one of them. Hence, the COVID-19 pandemic has created "pressure" on the space through the applications of various spatial practices. Interestingly, the transformations in social, digital and physical spaces did not happen separately, independent from each other. On the contrary, they are interrelated with each other. This means that the international refigurations of the space could be used for public policy purposes. For example, the promotion of e-governance services can be used to promote democracy in society. This is a simple example to show that "e-service" is a new digital space, while "democracy" is a new way of connectivity practices, which intends a less hierarchical and more inclusive way of social space. To give another example, we can see how the development of parks and other public spaces improve community relations and influence the development of human capital. Interestingly, governance systems and public policies pay less attention to spatial components of social policy. However, awareness of the interconnectedness of social, physical and digital spaces can increase the efficiency and effectiveness of implementing public projects in various fields of social life.

Interestingly, the *habitus* of the social agents remain decisive on how these changes will be manifested on the level of social practices. Hence, except spatial context, social background of the agents should be taken into account. The target of this study is a middle-class, university educated and mostly middle-aged, experienced students and workers, which means that their personal as well as organisational habitus allows to "reinvent" new connectivity practices, which leads to innovation, rather than social inequalities and marginalisation. However, whether all social agents' habitus allow us to adapt to the "new normal". For example, whether all families could provide equal opportunities for homeschooling during lockdown. The problem here is not only technological but also connected to the habitus of the child's parents. This means that spatial engagement is a social capital issue. Hence, we do not need social research to understand that home-schooling inevitably will deepen social inequalities. However, social researchers can measure the scale and map the vulnerable groups. Hence, depending on habitus of the people these could lead to both inequalities in society, social innovations, even deviant behaviour and crimes.

"Since I am working in my city at the same time, I organized an online training. One of the participants had thought that it should take place in the capital and came from the regional city to the capital, wrote me and asked where the event should took place. I was shocked. In fact,

people don't imagine working digitally that well, or they're not used to it, I don't know, time will show…" Female student, Moldova

Finally, the interconnection of the physical, digital and social spaces manifested through social practices. Hence, creation of new social practices can transform digital and physical spaces. Moreover, there is a need to remember that the spatial refigurations can not influence only transformations on urban or national level. This can lead to territorial refigurations in international relations. Not surprisingly, in this period we witnessed the rise of the ethno-political conflicts and wars in the transnational space which lead to regional reorganisations. The closures of the national borders have increased the power of the state, while weakening international ties. We do not have data to test this hypothesis, however, we can use social theory, our observations and logical generalisations. Not surprisingly, the specialist of the international relations or conflictologist will provide deeper explanations, however, what is evident we see spatial refigurations on micro-level, such as interpersonal relations; meso-level, such as social groups and macro-level, such as cities, nation-states and global regions.

Conclusion

The analysis of the social-spatial practices of 18 in-depth interviews with educational and labour migrants from post-Soviet space reveals how temporal and spatial context influence on social connectivity practices. This analysis showed that social capital is a dynamic phenomenon and described how people create and lose social capital during prodromal, acute, chronic and resolution stages of the crisis. Further, it helps us to understand how social agents make decisions to connect with others, what factors influence on that decision. Importantly, habitus influence on the transformation of the social-connectivity practices of the respondents.

The second aim of this project was to compare social connections in digital and social spaces, understand how attribute, situational and structural similarities maifest themselves in online and offline spaces, describe the influence of the organisational context on transformation of the connectivity practices in online and offine spaces. Finally, we compared transformations of the necessary, optional and interactional social activities in physical and digital spaces.

Last but not least, the research revealed how space have been transformed as a result of the spatial restrictions imposed by pandemic. First, it described the transformations of the the functions and the use of the space. Second, the research illustrate some influances of degitalisation and its possible influances on the trasformation of the space in future. Finally, the research interpreted how the physical, digital and social spaces are interconnected and how it is manifested through social practices. Thus, let me summarise the main important findings of this research "journey".

The first lesson that we have learned is methodological. On the one hand, the analysis of the crisis should take into account the stages of the crisis. The research results show that, in practice, there are *differences between connectivity practices during various stages of pandemic*. Hence, objectivist research with survey tools could be less informative for social researchers, because we collect the data for a specific time frame, while qualitative interviews allow us to reconstruct the process. The research results show that in the prodromal stage of the pandemic, social agents' accumulated social capital and both strong and weak ties are active. In the acute stage of the crisis, people keep their strong social ties, while losing their weak ties. In the chronic stage of the crisis, we notice the transformations of the social capital, for example, people replace some strong ties with weak ties, hence, the structure of the social network started to transform. In the

resolution stage of the pandemic, the social structure of the relations started to reorganise. Therefore, as the pandemic lasted the structure of the network has become less relevant.

Moreover, the resources embedded in each type of social ties also started to be changed, for example, if the strong ties are the source of the social support, while weak ties are the source of the information, during the pandemic, these features were not relevant. What has become more important is the *practice rather than structure of the network*. Further, other structural features, such as the *range of the network, similarity/dissimilarity* are less decisive in social agents' connectivity practices. What is more relevant is whether social agents share common practices together and whether they are accessible with each other. Hence, there is a need to shift the research lens from structure to practice. Moreover, internalised social structure of the agents, which we call habitus, are also decisive in social connectivity practices.

To move forward, social capital is spatially embedded, hence, there are differences between social agents' connectivity practices in physical and digital spaces. The structural variables, such as *attribute, situational, structural similarities*, have been changed in the context of social connections when spatial context have transformed from physical to digital space as a result of lockdown. Moreover, types of social activities *necessary, optional or interactional* are also space dependent and the change can influence the motivations of social agents to perform in certain ways. Finally, organisational practices and obligations also condition agents' practices.

In the end, the research results show that the COVID-19 related practices *led to the transformations of the social, digital and physical spaces and these transformations are interrelated*. These changes, in its turn brought *refigurations in space in the micro, meso and macro dimensions* of society. First, space has become *multicontext* and functional differentiations typical to modernist space started to transform. Second, *functions and use of the space have changed*. Third, as a result of the mass digitization, the *concept and understanding of the locality and local places have changed*, which means that people, meantime, can be present in various spatial dimensions, having influence on different territorial fields.

This *research results can be applicable* in various fields of social life. Generally, *the spatial dimension of public policy* is widely ignored. If we know how the space changes, including social space, we can also influence that change intentionally, for example, if we want to change something in social relations, we can do it spatially. To give an instance, spatial solutions can

help to solve social problems, such as inequalities. The policy practitioner can change something in physical space (architecture, urban planning…) or in the digital space (application of new digital practices). The research results can be used in various fields when there is a need to influence on cognitive and behavioural practices of social agents and groups. The human resources managers can use to increase motivation of the workers. Governance specialists can use spatial solutions to increase, for example, public participation. Urban planners can use the idea of interrelations of spaces to develop human capital in the cities. IT specialists can increase user uptake of their applications. Spatial research can be rewarding for all fields. For a detailed example, if someone wants to develop an online application for remote workers, like Slack, social scientists can advance the analysis how people interact in social and digital space and, hence, can suggest specific algorithms for programmers. Thus, this research promises rewarding, interdisciplinary experimentations for both researchers and practitioners.

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APPENDICES

Appendix A: In-depth Interview Guide

In-depth Interview Guide

(Short introduction about me, research project, the procedure of the interview, the research results, the rights of the respondents, etc.)

First Wave of the Interviews

General questions

I would like to ask you to tell me about you. Can you tell me a little about you? How long have you lived here? Where are you from? What are you doing (studying, working)? Please, describe your day. How much your activities are related to the university/workplace/this city?

Prodromal Stage of the Crisis

Let's talk a little about the phase when the pandemic has just started when there were just a few confirmed cases but everything was open.

- ✓ What kind of memories do you have of this period (negative/positive)? Can you tell me a story related to this period? Is it negative or positive? Who were the participants? What they were doing? What were you doing?

- ✓ Let's talk about your work/studies. How did you use to organize your day during this stage? What were you used to doing during this period (work, studies, leisure, etc.), and Where? With whom? Who were your social connections (family, friends, etc.)?

- ✓ Can you remember a case when you needed help (provided help) during this period? What kind of help (support, information, etc.)? Whom did you approach for support? What kind of people they were (race, age, occupation…)? Why did you approach (provide help) to them specifically (homophily, etc.)? How (ask about the means of the communication)?

- ✓ Can you describe your mobility patterns during this stage? Where did you use to go? Can you mention specific places? What were you doing there? With whom?

Acute Stage of the Crisis

Now, let's talk about the period when the first lockdown happened in the spring, 2020.

- ✓ What has changed in your daily routines? What has changed in your life, in general, in this period? Were there things that you used to do differently during that time? Can you compare your experience before that and during that period?
- ✓ What kind of memories do you have of this period (negative/positive)? Can you tell me a story related to this period? Is it negative or positive? Who were the participants? What they were doing? What were you doing?

- ✓ What has changed in your work/studies ? How did you use to organize your day during this stage? What were you used to doing during this period (work, studies, leisure, etc.)? Where? With whom? Who were your social connections (family, friends, etc.)?

- ✓ Can you remember a case when you needed help (provided help) during this period? What kind of help (support, information, etc.)? Whom did you approach for support? What kind of people they were (race, age, occupation…)? Why did you approach

(provide help) to them specifically (homophily, etc.)? How (ask about the means of the communication)?

✓ How your mobility patterns have changed during this stage? Where did you use to go? Can you mention specific places? What were you doing there? With whom?

<u>*Second Wave of the Interviews*</u>

Chronic Stage of the Crisis

First of all, thank you for agreeing to reflect on your experience further. We haven't talked for a few months and I would like to know what has changed during this period in your life/daily routine. Let's discuss the period started from 2020 mid-June when the *first coronavirus tracing application launched* and lasted until 2021 January *when people started to receive the first vaccines.*

✓ What kind of memories do you have of this period (negative/positive)? Can you tell me a story related to this period? Is it negative or positive? Who were the participants? What they were doing? What were you doing?

✓ What has changed in your work/studies? How did you use to organize your day during this stage? What were you used to doing during this period (work, studies, leisure, etc.)? Where? With whom? Who were your social connections (family, friends, etc.)?

✓ Can you remember a case when you needed help (provided help) during this period? What kind of help (support, information, etc.)? Whom did you approach for support? What kind of people they were (race, age, occupation…)? Why did you approach (provide help) to them specifically (homophily, etc.)? How (ask about the means of the communication)?

✓ How your mobility patterns have changed during this stage? Where did you use to go? Can you mention specific places? What were you doing there? With whom?

Resolution Stage of the Crisis

Finally, we are now in the resolution stage of the crisis, when we have learned some lessons. My questions refer to your experience that started *from January 2021 until now*.

✓ What kind of memories do you have of this period (negative/positive)? How would you describe your experience during this period? What kind of associations do you have? Can you tell me a story related to this period? Is it negative or positive? Who were the participants? What they were doing? What were you doing?

✓ What has changed in your work (studies)? How did you use to organize your day during this stage? What were you used to doing during this period (work/studies, leisure, etc.)? Where? With whom? Who were your social connections (family, friends, etc.)?

✓ Can you remember a case when you needed help (provided help) during this period? What kind of help (support, information, etc.)? Whom did you approach for support? What kind of people they are (race, age, occupation…)? Why did you approach (provide help) to them specifically (homophily, etc.)? How (ask about the means of the communication)?

✓ How your mobility patterns have changed during this stage? Where did you use to go? Can you mention specific places? What were you doing there? With whom?

General questions

- ✓ Nowadays, everyone is speaking that our lives have changed. What do you think has changed during the pandemic in people's lives? Are there things that people used to do differently previously? And now?

- ✓ How have your spatial practices have changed-use in the city, mobility, where you used to go before, where you used to go now, and how do you use the space?

- ✓ Can you compare your online and offline experiences in work/study/leisure/civic activities, etc.? What is the difference? Are there things that you could not do online/offline? Why? Can you bring examples? Can you remember a story (negative, positive)? What were you doing? Were there other participants? Who they were? What they were doing? What were you doing?

- ✓ How would you describe your online/ offline experiences after the pandemic? Can you mention three things that you can do and three things can't do online/ offline during a pandemic?

- ✓ Are there questions that I have not asked about your experience during the pandemic, offline/online experiences but you would like to tell me?

Thank you for your time and reflections. I will send you the summary of the research results when I publish them. Your responses are very valuable to me. In case you will have questions, feel free to contact me.

Appendix B: Consent Form

Consent to Participate in Research Project

Dear Sir or Madam,

my name is Shushanik Harutyunyan and I am a Master's student at the University of Tartu's Johan Skytte Institute of Political Studies. In the framework of my MA thesis entitled: "*The Transformations of Physical, Digital and Social Spaces During COVID-19 Pandemic: Exploring the Social-Spatial Practices of Educational and Labour Migrants from Post-Soviet Space in Berlin"* I enthusiastically invite You to participate in my research project as You are a key informant and Your participation in this the research is crucial. This form will give you an overview. Hence, you can decide whether you would like to participate or not.

This *research project aims* to understand how the COVID-19 pandemic has influenced the various aspects of our social life. Nowadays, all of us are interested in how the COVID-19 pandemic will change our life, whether these restrictions and other COVID-19 related practices are transient stages in our life or they will have long-lasting effects. As a researcher, I am interested in how our social practices have changed during the pandemic.

Currently, the research is in the fieldwork phase and your responses will contribute to the comprehensive sociological understanding of changes in human behaviour. I would like to inform you that, in the framework of this research, I am not interested in your experience specifically. I am going to analyze the collected information in a generalized way. This research is *anonymous* and all steps are taken to ensure the anonymity of your personal information.

What concerns the *procedure*, I will ask you to answer questions about your personal experience of pandemics related to your routine. The interview will last about one-two hour. To ensure that I will remember all information I will kindly ask you to record our conversation. After the interview, I should transcribe the collected information, which is necessary for the analysis. After the transcription, your recordings will be destroyed.

The *research results* will be published in my MA thesis and may appear in scientific journals. You are free and independent to decide whether to participate or not. Moreover, you have the *right* to choose whether to answer specific questions or not and interrupt the interview at any time you want. However, Your answers are very important and can contribute to understanding of pandemics now and in future and help the policymakers.

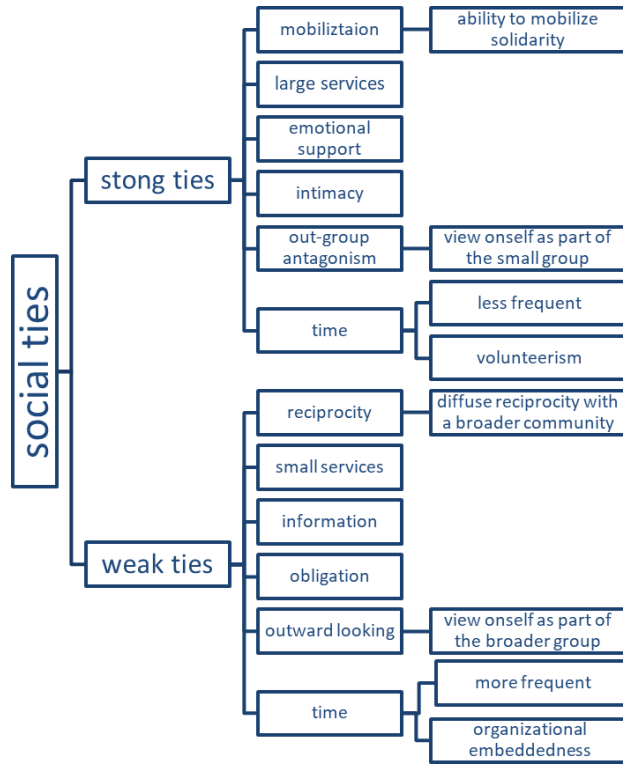In case you have any questions feel free to contact me:

Shushanik Harutyunyan,

Position: MA student at University of Tartu, Johan Skytte Institute of Political Studies

Email: shushan.harutyunyan97@gmail.com

Phone: +37493804139

Appendix C: Concept Map

Appendix D: Author's declaration

I have written this Master's thesis independently. All viewpoints of their authors, literary

sources and data from elsewhere used for writing this paper have been referenced.

………………………………………..

Shushanik Harutynyan

The defence will take place ……………………….. /date/at................................. /time/

…………………………………../address/in auditorium number........................./number/

Opponent ………………………./name/(...................../academic degree/),

…………………………./position/

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Done at Yerevan on December 2022 Shushanik Harutyunyan