

IMMERSIVE QUALITIES AND LIMINALITY OF SPACE
IN TELEWORK-FROM-HOME CONTEXT:
A POSTPHENOMENOLOGICAL APPROACH

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A POSTPHENOMENOLOGICAL APPROACH**

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I hereby declare that all information in this document has been obtained and presented in accordance with academic rules and ethical conduct. I also declare that, as required by these rules and conduct, I have fully cited and referenced all material and results that are not original to this work.

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ABSTRACT

IMMERSIVE QUALITIES AND LIMINALITY OF SPACE IN TELEWORK-FROM-HOME CONTEXT: A POSTPHENOMENOLOGICAL APPROACH

Sönmez, Orkun

Doctor of Philosophy, Building Science in Architecture

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The thesis investigates human-space relations in the new spaces emerged in the context of telework from home, deriving from the literature ranging from architecture to psychology, organizational studies and virtual reality research. Looking from a postphenomenological perspective, it conceptualizes all virtual and/or physical spatial features as technologies with spatial capabilities and limitations within context and conditions in which they are issued, and technologies which can also constitute immersive qualities to be involved in subjective experiences of presence in any particular lifeworld such as work life or home life. Utilizing both qualitative and quantitative methods, this thesis reveals new insights about how different individuals teleworking from home use and experience this new space, and insights about the relationship among work-home balance, immersion and liminality. It demonstrates that flexibility of architectural space is a major factor that affects these individuals' experience and work-home balance, and that architecture can utilize postphenomenological perspective to explore human-space relations.

Keywords: Postphenomenological Research, Immersion, Liminality, Flexibility, Telework-From-Home.

ÖZ

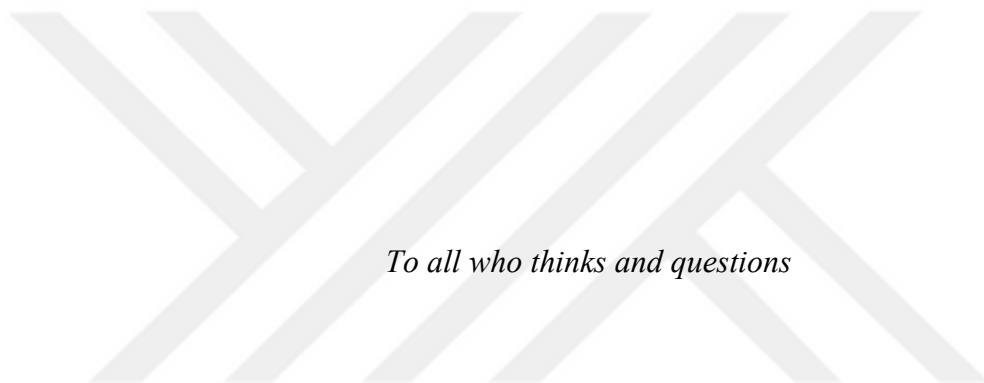
UZAKTAN VE EVDEN ÇALIŞMA BAĞLAMINDA MEKÂNIN SARICI NİTELİKLERİ VE EŞİKSELLİĞİ: POSTFENOMENOLOJİK BİR YAKLAŞIM

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Bu tez, mimarlıktan psikolojiye, örgüt çalışmalarına ve sanal gerçeklik araştırmalarına uzanan bir literatürden yola çıkarak, uzaktan ve evden çalışma bağlamında ortaya çıkan yeni mekânlardaki insan-mekân ilişkilerini incelemektedir. Postfenomenolojik bir perspektiften bakarak bu tez, sanal ve/veya fiziksel tüm mekânsal unsurları, ele alındıkları kendi bağlam ve koşulları çerçevesinde mekânsal imkânları ve kısıtlamaları olan ve aynı zamanda iş hayatı veya ev hayatı gibi belirli yaşam dünyaları içerisinde mevcudiyet (bulunma) hissinin öznel deneyimlemelerine müdahil olacak sarıcı (sürükleyici) nitelikler teşkil edebilen teknolojiler olarak tasavvur eder. Hem nitel hem de nicel yöntemlerden faydalanarak bu tez, uzaktan ve evden çalışan farklı bireylerin bu yeni mekânı nasıl kullandıkları ve deneyimledikleri hakkında ve iş-ev dengesi, sarım ve eşiksellik arasındaki ilişki hakkında yeni anlayışlar sunmaktadır. Bu tez, mimari mekânın esnekliğinin bu bireylerin deneyimlerini ve iş-ev dengelerini etkileyen önemli bir etken olduğunu ve ayrıca mimarlığın insan-mekân ilişkilerini araştırmak için postfenomenolojik perspektiften faydalanabileceğini ortaya koyar.

Anahtar Kelimeler: Postfenomenolojik Araştırma, Sarım (Sürükleyicilik), Eşiksellik, Esneklik, Uzaktan ve Evden Çalışma



To all who thinks and questions

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LIST OF ABBREVIATIONS

AI	artificial intelligence
APhe	architectural phenomenology
APsy	architectural psychology
AR	augmented reality
CMS	critical management studies
COVID-19	coronavirus disease 2019
EP	environmental psychology
EX	employee experience
HI	home immersion
Hinv	home involvement
HLC	home life centrality
HMD	head-mounted display
HP	home presence
HR	human resources
ICT	information and communication technologies
ICVE	immersive collaborative virtual environment
ILO	International Labour Organization
IPA	interpretative phenomenological analysis
IVR	immersive virtual reality
Jinv	job involvement
ML	machine learning
MR	mixed reality
O*NET	Occupational Information Network
P	participant
PDH	psychological detachment from home
PDW	psychological detachment from work
PI	place illusion
Psi	plausibility illusion

TFH	telework from home
VR	virtual reality
WFH	work from home
WI	work immersion
WP	work presence
WLC	work life centrality



CHAPTER 1

INTRODUCTION

There is a vast and complex discourse on relation of space and human psychology and behavior in both individual and social contexts. Development, integration and adoption of technology has been increasingly involved in these relations for decades. Studies from many disciplines of science and philosophy, and regulations, manifestations and non-doings as much as doings of governmental and institutional accounts have been contributing to this wide discourse in terms of a large variety of scope and scale of these relations from housing to schools, shopping malls, government buildings and workplaces; from personal space to city scale and so on. After decades of experience, and practical and theoretical contributions to the ever-developing discourse from diverse sources, contemporary discourse on human-space relations still suffers from its compartmentalized existence and development and thus from overlooking a great part of it because of lack of knowledge and consensus. Humans' individual and social relations within space are lived, studied, understood, institutionalized and regulated highly dependent on norms. Norms seemingly originate through "natural" processes leading to "natural" acceptance, while the practiced way of living is taken for granted as the only logical one. However, norms are socially constructed via the complex development of the discourse embodying non-consensus, un-known, unaccepted, unusual etc. as much as the consensus, known, accepted, usual etc. In this manner, normalization of socio-spatial injustice through power-knowledge relations weighs a great responsibility on architecture milieu and all related disciplines of science and philosophy. Therefore, one of the main motivations of this research is to provide an approach which not only accommodates different standpoints of science and philosophy, but also constructs tangible bridges across theory and practice to an extent that any architect, individual, institutions and organizations can understand and make comprehensive decisions on human-space relations.

This discourse with its norms, and the pace and type of technological involvements are indubitably highly affected by local and global crises. Covid-19 pandemic certainly constitutes one of them. It forced us to leave our comfort zones in many areas, from individual to global scale. It created a type of enforced socio-spatial experiment to learn from. It also created a certain awareness that many things which we take for granted as “normal” are not the only logical ways of living in terms of our relations within built environment. This pandemic experience also highlighted how discourse and norms are built and reinforced. What type and scale of spatial problems are discussed in political, institutional, organizational and mass media discourses during the pandemic emergency reflects the normalization of socio-spatial injustice which has been existent already before pandemic.

In general, the role of architecture in human-space relations has been argued over various standpoints for a very long time. Totality of what has been experienced during the pandemic also revitalized the need for a critique of the role of architecture, rather than calling for just a disaster management plan. Temporary unorthodox use of space and collective realization of our capability to acquire new spatial habits and further new types of environments and lifestyles certainly provide new insights and awareness for ordinary people and architects, policy makers or any planner who is involved within making decisions on human-space relations. There are two important problems in this situation. First is the lack of unified understanding on what space is and how space and humans affect each other. Second problem (which partly stems from the first one) is about how users and spatial decision makers will make sense of their new observations, new experiences and new knowledge, and further make spatial decisions. In other words, in a discourse that we cannot define space and spatial relations; the ramifications of open-ended judgments, spatial arrangements, vague laws and policies combining with actual living practices and societal sensemaking processes might create a problematic multilayered fabric of artificial norms. That is why we need to revisit the questions of “What is space?” and “How can we study the ever-changing relationship between space and human?”.

The most major change in use of space that came by the pandemic experience was the proliferation of working-from-home (WFH) concept. WFH has been always

anticipated and criticized at the same time. Big companies like IBM, AT&T, Google, Yahoo etc. have tried it in 2000s, and then mostly reduced or canceled in first half of 2010s. Some prominent problems were about lack of natural communication (especially impromptu meetings and corridor conversations), innovation and feeling of community. These problems were highly related to inefficiency of technology, infrastructure and adoption rate which were preventing the virtual work from competing with traditional face-to-face working conditions. It should be considered that these technological impediments are also some of the reasons that the research on WFH is limited in terms of number, size and type variety of companies. On the other hand, with the pandemic experience, all capable organizations have tried WFH, and many decided to continue after the pandemic too. There are numerous reasons and factors behind this decision. Technology has developed, although it is still far from the extent to compete with traditional communication methods in various organizational contexts. However, technology adoption is definitely higher than a decade ago. Digital native generations constitute a larger ratio of the global workforce. Many employees have realized the advantages of WFH, and now prefer it over the traditional commute. Normalization of overlooked problems is also part of this equation. Moreover, some financial and reputational advantages for the companies have been globally experienced and revitalized in the general discourse. Many companies have cherished their lowered expenses and carbon footprint as if their employees do not continue using any resources for the company while working from home, but it happens in employee's home space where companies are legally not responsible in most cases.

In terms of the virtualization of work, there is a wide range of issues. In one side of the spectrum, there is the digitalization of physical work in employer's premises through AI, robots, big data, internet of things and proactively using information about the observation on laborers and non-human processes to create a virtual layer of workspace. On the other side, there is the despatialization of work involving employees working particularly or completely out of the employer's premises and employees virtually collaborating between separate and distant physical premises and even separate organizations. However, the issue of working from home as an employee of an organization or as it is called in this thesis, the teleworking-from-home (TFH)

distinguishes itself as more complex and problematic in terms of how the factors defining the space change and what kind of socio-spatial relations are exposed to such changes. Because, in this issue, the change is not only about redefining or leaving organization's physical premises and separating a particular organization's acknowledged culture, socio-spatial behaviors, interaction methods, public relations etc. from its usual spatial context. Organizations or teams are required to adapt into a new topography formed by particular physical resources of the organization and the virtual spaces and employees' homes to replace, for example, an office building. There are also domestic and privacy-related extensions of such change which involves outsiders' interference into employees' preferences of how to plan, use and even feel about their homes. Especially in conditions of employees living with their families, the interference exceeds to socio-spatial relations between family members and their private lives, such as that an employer of a parent can make an indirect, unaware, normalized (by society) and (thus) guilt-free impact on when and where the employee's child can play, eat, study or interact with the parent.

Normalization of such problematic situations has many sources and/or mediators which contribute, strengthen and settle the whole society's conformism, submission or learned helplessness for "the distribution of the sensible" (Rancière, 2004), ambiguities and lack of knowledge about the subject matter. To elaborate, limitations and ambiguities on defining the space and human-space relationship in scientific milieu and further in legislative mechanisms are such mediators. In contemporary financial, political and professional conjunctures, there is lack of stable and acknowledged mechanisms to recognize the aforementioned interference or to guide organizational planners, or to illuminate and protect employees in terms of their rights over their private life and space. In this already problematic situation, increasing technology adoption over the last two decades and the Covid-19 pandemic also provided an environment prolific for such normalization. Increased technology adoption provided a large population of work force with the ability to be accessible and eligible to work anytime anywhere without clear boundaries. Additionally, during the pandemic, globally massive number of employees had to accept and struggle with conditions of the enforced working-from-home experiment brought by pandemic

because it has been considered lucky to still have an active job while economies are collapsing.

The author's perspective considers human-space relationship and human-human relationship as intertwined parts of a whole ecosystem instead of isolated dualistic relations. Accordingly, all spatial constraints, social constraints, personal constraints, and all types of relations between any of these constraints might affect each other or even contribute to the emergence of new ones. Thus, first main motivation of this thesis is to understand the socio-spatial continuum and provide a method to define space and its connections with humans, that can be clearly understood and practiced by anyone who plans a space for human use. This also involves all virtual spaces and digitalized replacements of physical spatial practices. Rather than exploring virtual spaces as completely new concepts or approaching them with our limited conventional knowledge and perspectives on physical spaces; including virtual spaces and virtualization into the socio-spatial research means both to expand our scope of what to define as space and to detail the layers of what else to question about space. This requires a holistic and in-depth analysis of spaces, persons, and social aspects of various cases. Thus, another motivation of this thesis is to scrutiny, clarify and recognize the socio-spatial injustice and its normalization through local and global changes of regulations, approaches and trends on built environment and social space in general.

Problematic area at the intersection of these two motivations can be exemplified and investigated most comprehensively in scope of teleworking-from-home. Because in a wide range of cases in this context, particular organizational and private domestic socio-spatial ecosystems collide through an enforced merge and a survival struggle of spaces, space-human relations and human-human relations which have been already internalized by individual members of these ecosystems cognitively, emotionally and behaviorally. Not only that issues like place attachment, proprietary, privacy, freedom, lifestyles and socio-cultural values and arrangements (of both organization and family) but also possible direct and indirect impacts on individuals' psychological well-being are neglected.

Individuals teleworking from home bring work life into a space which they predominantly identify as home. They sometimes spare a room, convert it and identify it as a workplace, a room dedicated only for work. Otherwise, they convert some part of another room or simply work where they can, such as in living room, kitchen, bedroom etc. There are connections between individuals and their home through their relationship with various aspects (objects, architectural elements, household members etc.) of home. These various relationships largely constitute how the individual identifies a space as home. Such identification and relationships can be strengthened and intertwined with personal and social habits and memories through experience. Seeing, hearing and interacting with all those aspects, or any experience involving the individual and those aspects are part of the process of identification of home and feeling of being at home. This is similar for spaces we identify as workplaces too. There is a relation between an individual and the environment established through such experiences. Such experiences can be identified and acknowledged by the individual as an essential part of a certain setting of reality with its own habits, social rules and spatial qualities, such as home life or work life. Accordingly, these subjective experiences can provide the individual with the feeling of being in a certain place (e.g. work or home), and thus it might motivate the individual to act accordingly. This relation highly resembles the relation between an individual and a virtual reality environment established through immersive experiences. Such immersive experiences can be identified and acknowledged by the individual as an essential part of a certain setting of virtual reality with its own theme, capabilities, rules and spatial qualities, like a virtual world in a video game. Accordingly, these immersive experiences can provide the individual with the feeling of being in a virtual place, and thus it might motivate the individual to act and think accordingly. In this sense, revealing immersive qualities of these newly emerged (home and work) mixed spaces can help to better understand the teleworkers' experience of work life and home life, and the impact of these new spaces on their work-home balance.

In terms of how to conceptualize architectural space and its relationship with humans, the approach of this thesis overlaps with post-phenomenological perspective which emphasizes the technological mediation of experience. Accordingly, "technologies

transform our perceptions (amplify/reduce) and translate our actions (invite/inhibit)” (Aagaard, 2017). Therefore, this thesis conceptualizes both virtual and traditional architectural spatial features as technologies with spatial capabilities and limitations within their issued context and conditions, and which can constitute immersive qualities to be involved in subjective experiences of presence in any particular lifeworld such as work life or home life.

This thesis hypothesizes that: “In the context of organizational teleworking from home, employees’ work-home balance is affected by spatial immersion and liminality.” It’s research questions are: In the context of organizational teleworking from home,

1. What is it like for employees to experience teleworking-from-home under different personal, interpersonal, temporal, spatial, demographic and background (i.e.: past experiences) conditions?
2. What is it like for employees to experience the phenomena of spatial immersion and liminality in the newly emerged space during work and non-work hours? And which qualities of the converted space affect this experience?
3. What is the relation between spatial immersion, liminality and the work/home balance?

CHAPTER 2

LITERATURE REVIEW

2.1 History of Architectural Psychology

2.1.1 Beginning and Development

The roots of architectural psychology (APsy) are traced back to environmental psychology (EP), and certain developments of this field had direct impacts on APsy. Therefore, history of APsy cannot be explained or understood properly without key events in EP field. Field of EP studies the relation between the human psychology, behavior, well-being and the physical environment (Heimstra and McFarling, 1978) involving social aspects, in other words “sociophysical environment” (Stokols and Altman, 1987). First endeavors which can be related to EP can be traced back to 1910s when psychologists had started to interest on how physical stimuli (e.g. light, sound, heat, etc.) effects the human perception (Bell et al., 1990). However, first systematical approaches towards establishment of EP are attributed to late 1950s, and Egon Brunswik and Kurt Lewin are considered pioneers, noting that ‘environmental psychology’ was coined as a term by Brunswik (Gifford, 1997). While Brunswik was concerned with the process of perception (Steg, Berg and Groot, 2013), Lewin studied behavior as determined by the interaction of human and environment (Lewin, 1951). In late 1950s, Robert Sommer was doing research on ‘personal space’ (Sommer, 1959), and Humphrey Osmond was studying how physical environment effects human behavior (Gifford, 1997). In those years, William Ittelson and Harold Proshansky started to observe behaviors of mental patients in hospitals (Proshansky, Ittelson and Rivlin, 1970). Along with such studies displaying an increase in psychology milieu’s interest on physical environment; architecture, geography and ecology fields’

increasing interest on psychology is also pointed as an important factor for emergence and establishment of the EP field (Bonnes and Secchiaroli, 1995).

Establishment of the EP and APsy display an intertwined development through history which is asynchronous in different parts of the world. Most sources suggest that “Research for Architecture” held in 1959 in University of Michigan was the first conference about APsy field (Pol, 2007; Petrovic et al., 2015) which can be also considered as one of the first institutional efforts. This conference was held three years after American Institute of Architects (AIA) initiated and demanded support for the meeting from National Science Foundation (NSF). Its purpose was to investigate relations between physical, biological and social sciences in order to design environments with proper accommodation for human activities. A relevant seminar held in AIA convention in 1958 is also mentioned by some scholars (Petrovic et al., 2015).

In 1961, an interdisciplinary meeting was conducted by architect Roger Bailey, psychiatrist Hardin Branch and psychologist Calvin Taylor. The meeting named “Architectural Psychology and Psychiatry” was held in Salt Lake City, Utah, while a program was also started by them to train architects and psychologists on the subject matter (Bailey, Branch and Taylor, 1961). 1960s also saw some first examples of relevant studies in urban environments, in Germany: Alexander Mitscherlich’s “Psychoanalysis and Urbanism” (1963) and “Our Inhospitable Cities” (1965), although they were “systematically ignored and even verbally attacked largely by the area’s experts” (Pol, 2007). In Sweden, first “Architectural Psychology Conference” was held in 1967 and in following year “Swedish Society of Architectural Psychology” was founded -which is today’s “Environmental Psychology Group” of The Swedish Research Council (Pol, 2007). Furthermore, one of the most influential organizations in the area, Environmental Design Research Association (EDRA) was founded in 1968 (Petrovic et al., 2015). Again in 1968, first PhD program in EP; and in following year, the journal of Environment and Behavior were established in City University of New York (CUNY) via influence of Proshansky, Ittelson and Rivlin (Ibid.). One of the first textbooks of the field, “Environmental Psychology: Man and his Physical Setting” published in 1970 was also edited by these three names (Proshansky, Ittelson and

Rivlin, 1970). Another meeting in 1969, Scotland was conducted by the University of Strathclyde and Royal Institute of British Architects (RIBA) with initiation of Terence Lee and David Canter (Pol, 2007). This is also considered as an important event in terms of a formal establishment of architectural psychology field in Europe. Additionally, first International Architectural Psychology Conference (IAPC) was organized in 1970 (Ibid.). This meeting is considered as a founding initiation of today's International Association for People-Environment Studies (IAPS), and the Architectural Psychology Newsletter which is today's IAPS Bulletin was also originated in this meeting (Ibid.). IAPC associated itself with architectural psychology until early 1980s. On the other hand, Lee and Canter established the first master program in Europe (in University of Surrey, 1973) with "environmental psychology" label and Canter was involved in both establishment and editorial board of the Journal of Environmental Psychology beginning with 1981 (Ibid.). Accordingly, Pol (2007) reports that "architectural psychology" and "environmental psychology" terms were both actively used in Europe around 1970s. Similar institutional initiations continued to appear in different continents through 1980s and further, with also using different labels like "Environment-Behavior Studies (EBS)" and "Environment Design Research (EDR)". Some major examples are People and Physical Environment Research Organization (PaPER) in Australia (1980) and New Zealand (1983) with its journal and international conferences, Man-Environment Relations Association (MERA) in Japan (1982), and Environment-Behavior Research Association (EBRA) in China (1996) with regular international meetings (Demsky and Mack, 2008).

Indubitably, the Second World War has changed the world a lot. Accordingly, continuum of APsy field has some inevitable relations with the effects of post-war developments in science, philosophy, technology and ideologies. A major impact for sure is by humanist concerns raised after the Second World War. Scholars argue that these concerns are reflected in architectural discipline's increasing interest on psychology and further integration of disciplines in 1950s and 1960s (Petrovic et al., 2015). Acclaimed scientific methods which were utilized during the war encouraged not only scientization of design and thus emergence of 'design methods movement' in 1960s but also civilian developments and further studies in the area of organizational

behavior (Cross, 2001). In this era, research on the subject matter also displays similar motivation and methodologies. Especially conferences and further literature suggest that research conducted in 1960s and early 1970s in the field of APsy and EP was mostly positivist and quantitative (Philip, 1996). Philip (1996) attributes this to the dominant behaviorist orientation with its empirical and experimental methods and to the psychology milieu's low interest psychoanalytic approaches especially in English-speaking countries. He also reports that proceedings of some pioneer conferences in the field (e.g.: Canter, 1969; Sanoff and Cohn, 1969) display that participant studies commonly suggest or assume at least a strong causality between behavior and physical environment. He further reports that majority of studies in early editions of first journal of the field (Environment and Behavior starting in 1969) share a common assumption of "the possibility of manipulation of people".

At this point, two things become prominent and are also emphasized and further elaborated in this paper: the approach and the product of studies following this tradition, which cannot be fully examined without each other. Firstly, cognitive and behaviorist approaches, especially in early studies of the field, commonly employed an isolated experimental setting in which human individual is put and observed in a particular physical environment. Common approach presupposed a subject-object dichotomy in a manner seeking for direct impacts of experimental environment on individuals as they are both entities isolated from each other, outer world and natural occurrences of daily life. Secondly, aforementioned branch of studies commonly provides from implications to almost formulas of direct and predictable type of impact of physical environment on human individual's behaviors. This one has also been constituting possibly the most attended and strongest critique against any studies anyhow following this tradition. To be specific, architectural determinism is an assumption that:

Architectural design has a direct and determinate effect on the way people behave. It implies a one-way process in which the physical environment is the independent, and human behavior the dependent variable. It suggests that those human beings for whom architects and planners create their design are simply molded by the environment which is provided for them. (Broadly, 1966)

Contemporary with the famous philosophical debate on the subject of science, attended by names like Kuhn, Toulmin, Popper, Lakatos, Feyerabend (Lakatos and Musgrave, 1970), 1970s witnessed that the cognitive model and extreme positivist approaches are attacked particularly by people coming from phenomenological and existentialist backgrounds (Philip, 1996). This brings us to the division of theoretical and methodological approaches in the area. It can be argued that there are two major traditions in APsy research and literature. One is closer to the behaviorist tradition and cognitive psychology, and other is closer to the phenomenology tradition. This second tradition will be explored briefly from phenomenology to architectural phenomenology in the next part before further analysis of the effects of both traditions on the field's development in later parts of this paper.

2.1.2 Relation with Architectural Phenomenology

Phenomenology has been a term which is pretty hard to conclusively define, even for pioneers or proponents of the tradition. In one common way, it can be defined as a field which critically and descriptively studies the 'phenomena', what things mean in our experience. It covers different approaches such as Edmond Husserl's transcendental phenomenology, Martin Heidegger and Maurice Merleau-Ponty's existentialist phenomenology and so on. Comprehensively, it can be defined as "a style of thought" (Farina, 2014) or as "a way of knowing" (Seamon, 1994) in pursuit of describing human experience and the world where it occurs (Burch, 1989; Relph, 1985; van Manen, 2016).

A core assumption in phenomenology is the strongly intertwined relation of humans and world (Seamon, 1994). Accordingly, it rejects any subject-object dichotomy between humans and the world as in cognitive and behaviorist approaches. Its presumptions are that humans experience the world, and that their behaviors and understandings and the world support and reflect each other. In "Being and Time", Heidegger (1962: first published in 1927) argues that idealist and realist perspectives hold a reductionist approach to this relation by considering that either the world or the human as a function of the other. The intertwined, taken-for-granted, inevitable and

immersive relation between humans and the world is what Heidegger called “*Dasein*” or in other words being-in-world (Ibid.). As this being-in-world phrase also suggests, it is considered that human experience is always directed to world. Accordingly, “...human experience and consciousness necessarily involve some aspect of the world as their object, which reciprocally provides the context for the meaning of experience and consciousness” (Seamon, 2000). This argument of intentionality which opposes the aforementioned dichotomy is central to the phenomenology discourse.

It can be argued that principles mentioned above stemmed from “*epoché*” which is considered as “a methodic premise and a programmatic meta-discourse” (Farina, 2014) for phenomenology. It premises refraining from any bias of science, philosophy and culture in order to concern a consciousness as the issued holistic subject-object relation instead of any metaphysical subject depended by things’ existence (Ibid.). Therefore, investigation of individuals’ subjective perception of an issued phenomena is essential. Accordingly, common methods are mostly qualitative and interpretative, ranging from interviews to participant observations, from action research to ethnographic methods and so on (Lester, 1999). Additionally, real life settings and experiences are utterly prioritized over isolated experimental settings which are especially common for earlier cognitive studies.

Literature on architecture and environment-behavior studies displays some objects of discourse which were investigated phenomenologically. These can be exemplified within a range from place (Mugerauer, 1988; Relph, 1985) and dwelling (Jager, 1985; Stefanovic, 1992) to archetypes (Thiis-Evensen, 1987) and bodily routines, place ballet (Seamon & Nordin, 1980) and so on. Seamon (2000) mentions two key concepts identified by Husserl which are also important for an architectural inquiry in this subject: lifeworld and natural attitude. As Seamon (2000) explains, the lifeworld is a phenomenon which is a person’s or a group’s immersive everyday world with an intentional and unquestioned structure, while the natural attitude is its taken-for-grantedness as we are usually unaware of it and assume as the only way that life can be. In an architectural perspective, he further suggests that there are separate lifeworlds which each user associate with the same building while there is also the building’s complex lifeworld originated by those of users.

Architectural phenomenology (APhe) focuses on architectural experiences. It involves descriptive and interpretative analysis of these experiences with their settings and meanings as they are generated by both human life and built environment (Seamon, 2017; Otera-Pailos, 2012). Interaction between architecture and phenomenology can be traced back to 1940s. In phenomenology side of the field, philosophers started being interested in architectural topics and further studied them phenomenologically. For example, Merleau-Ponty showed the crucial role of body in human-space relationship in his “Phenomenology of Perception” (1945). Later, Heidegger (1952) analyzed concepts of being, building and dwelling. In “Poetics of Space”, Bachelard (1957) presented topoanalysis; in “Sacred and the Profane”, Eliade (1957) focused on hierophany; in “Human Space”, Bollnow (1963) argued the relationship of “the wide world” and “the security of the house”.

Architects also started to be interested in phenomenological topics and methods in late 1940s and 1950s. Otera-Pailos (2010) tells the history of APhe with some emphasized people in this period. Accordingly, Ernesto Nathan Rogers influenced the first interactions between scholars of two fields and gathered some architects who investigate phenomenology in pursuit of reconceptualizing modernism (Ibid.). Jean Labatut is another architect. He has utilized phenomenology to seek new design ideas with the purpose of enhancing human experience and also promoted such interdisciplinary studies in the academy (Ibid.).

In the 1960s and 1970s, interest in the intersection of two fields continued both in professional and academic area. In this period, first endeavors and further establishment of the architectural psychology (APsy) field played a major role. Although majority of the APsy research was conducted via cognitive and behaviorist frameworks, phenomenological inquiry of particular thinkers (Alexander et al., 1977; Jacobs, 1961) and geographers (Relph, 1976; Tuan, 1974) was also present with special focus on the concepts like place and dwelling.

In the 1970s and 1980s, architectural theorist Christian Norberg-Schulz played a major role in APhe discourse. Combining a phenomenological approach with existing APsy research, he focused on concepts like ‘at-homeness’ and ‘ambience’ (Otero-Pailos, 2010). His many works on exploring architectural dimensions of ‘lived-space’ like

place (Norberg-Schulz, 1980; 1988) and dwelling (Norberg-Schulz, 1985) inspired further architectural inquiry in the following decades (Otero-Pailos, 2010). Starting with the 1980s, phenomenological perspective was challenged by new frameworks like poststructuralism, deconstructivism, feminist theory and so on (Ibid.) which still dominate contemporary architecture in both practice and theory. However, APhe is still actively contributed by philosophers (e.g.: Casey, 2009; Malpas, 2006; Mugerauer, 2008) and architectural theorists (e.g.: Pallasmaa, 2009; 2016; Pérez-Gomez, 2016; McCann and Locke, 2015). This is also reflected in professional practice and built environment by works of architects like Peter Zumthor, Stephen Holl, Tadao Ando, Louis Kahn and so on (Hale, 2017; Shirazi, 2014). Today, phenomenological approaches are still utilized even in cognitive science on topics like spatial behavior, aesthetic, and wayfinding (Hale, 2017; Robinson & Pallasmaa, 2015; Mallgrave, 2013). Especially in architectural theory, two topics become prominent in 21st century. One is the phenomenon of ‘atmosphere’ referring to the architectural ambience which gives the unique character of a place (Zumthor, 2006; Perez-Gomez, 2016, Pallasmaa, 2016; Griffero, 2014; 2017). Another is the “environmental embodiment” referring to the “lived-body” that is perceptually aware of physical environment in an unself-conscious way (McCann & Locke, 2015; Mallgrave, 2013; Pallasmaa, 2009).

2.1.3 Criticism and Discontinuation

Architectural psychology (APsy) is not a widely used label today, although environmental psychology (EP) and particular topics related to the built environment are still active fields and topics with conferences, university programs, journals etc. However, these areas are not very well known and attended outside its particular milieu (Spencer, 2007). Related to that, there is a consensus on some decrease in popularity of the APsy starting around 1980s (Philip, 1996; Pol, 2007; Petrovic et al., 2015), but scholars’ arguments on reasons, progress and characteristics of this change are varied.

In terms of the progress of this change, Pol (2007) mentions a social and an environmental shift in EP starting with the 1980s. He exemplifies the social shift by starting with “Towards a Social Psychology of the Environment” meeting in 1981, Paris, and continues with increasing inclusion of social factors and related labels in the field’s handbooks and conferences. He further mentions Canter’s highly influential text “Environmental (social) psychology: an emerging synthesis” from a proceedings book (Canter, Jesuino, Sockzka and Stephenson, 1988) where Canter argued the social importance of EP and how approaches of previous acknowledged authors of the field were already social but misunderstood. In terms of the environmental shift, Pol (2007) explains the increase in number of publications interested in environmental resources and global-change topics especially in late 1980s and 1990s, situation which gradually constitutes “sustainability” as the dominant theme of the field in early 21st century.

In terms of the reasons for the change (particularly the decrease of architectural endeavor), a comprehensive reason argued by scholars is the “failure in the dialogue between the social and behavioural science and architecture” (Philip, 1996). In the post-war (WW-II) period, architectural milieu had some expectations from these disciplines in a manner that it acquired help from other disciplines in terms of building materials and structure (Ibid.). However, these expectations were not met as much as happened in other issues. For example, Mikellides (1973; 1980) argues the paradigm difference between the disciplines of psychology and architecture in terms of research aims and methodologies. He suggests that architecture is generally interested in more specific questions to learn and apply on design decisions -the “first order” problems as he calls-, while psychology is more focused on “second order” problems such as underlying principles and theories behind the surface problems -which is hard to relate and utilize for architects.

There are also more evident arguments on the failure of interdisciplinary dialogue. One is about majority of cognitive and behaviorist studies. Results of studies focusing on specific cases were not generally applicable and were supported by evidence out of complex statistical techniques and probabilities. Accordingly, such accumulation of knowledge could not be adopted and integrated into design process by architectural milieu (Philip, 1996). On the other hand, phenomenological accounts’ complex and

comprehensive research methods and way of describing the architecture intertwined within the context of human life and experience was also found impractical (and even meaningless by some) architects (Ibid.). Considering behaviorist accounts' questioning the scientific value of phenomenology and phenomenologists' rejection of reductionist approaches, one can easily interpret that the controversy between two main approaches did not help the situation either, thus long-debated scientific ambiguity especially hindered the academic research.

There are also limitations brought by professional and educational life which hinders further development in practice and (indirectly) in academic research. One is time and financial limitations of professional life which naturally creates a tendency to ignore psychological issues during the design phase (Acking, 1980). In today's capitalist, consumerist, mass-productive state of culture, this situation stands still. This is representable also in other areas of architectural professional life. State of mainstream architectural culture partly processed, popularized and sustained by competitions and magazines affects both the contemporary practice and (through educational area) the future practice. It is easy for instructors in architecture schools to find themselves in a conundrum where simultaneously; they need to prepare students for contemporary limitations of professional practice and economy; and they need to provide a comprehensive accumulation of knowledge preferably not dominated by mainstream images and ideas. Furthermore, educational practice is also not free of similar financial and temporal limitations.

All these mentioned criticism and discontinuations aside, the architectural determinism and related critiques have been always, metaphorically, a "scarecrow" for a large part of architectural academic milieu. It is a common attribution that if you are studying relation between physical environment and individual or social behavior you will probably be either accused of determinism or misunderstood or not acknowledged among dominant paradigms. Indubitably, this problem cannot be dismissed so easily, because deterministic attitude in terms of social aspects of built environment is not limited to a particular group of disciplinary or theoretical statements and studies. It is evident in the history of private and institutional interference on societies' structure

via planning the physical environment; and it is older than the formal establishment of EP field. This topic will be briefly explored next.

2.1.4 Social Aspect of Architecture

In order to explore spatially determinist inference in societies, at least some key information on history of the “determinism” idea is valuable in terms of its historical impacts. Including its first implications, it is an ancient idea which roughly holds that the whole universe is fundamentally rational; through laws of nature, every event is determined by previous events and thus acquiring knowledge on every future event is possible (Hoefer, 2016). However, its first scientific explanation including mathematical analyses is traced back to 18th century (Ibid.). In this subject, Pierre-Simon Laplace is known as a prominent figure in history of science with his works ranging from late 18th century to early 19th century. His “A Philosophical Essay on Probabilities” (Laplace, 1820) is shown as the first published work explaining a kind of scientific determinism (Hawking, 1999). So-called “Laplacian determinism” had large impact on science to an extent inspiring a wide range of inquiry in 19th century (McIlveen, 1991). While earliest evident opposition to this idea was in 1920s via quantum theory in terms of atomic scale; introduction of electronic computers in 1960s provided development and new unusual results in varied fields of natural sciences (Ibid.). With accumulation of such knowledge, 1970s witnessed paradigm-changing studies such as meteorologist Edward Norton Lorenz’s work (1976) which opposed deterministic accounts and involved fundamentals of modern chaos theory (Motter and Campbell, 2013).

Relation between architecture and social purpose is also very ancient. As Dascalu et al. (2013) reported, it is argued (Solinis, 2005; Powers, 2008) that until the Renaissance this relation was closer to the idea of creating the environment to accommodate the society, as in original utopias like Plato’s Atlantis. Then, this started to change which can be exemplified with Filarete’s Sforzinda (Fig. 2.1). It is argued (Mumford, 1961) that rather than institutions, the will of the prince and the architect was reflected in that example, aiming the institutions and subjects. This brings us to

the “social engineering” in the following centuries. Beyond its scientific and ethical legitimacy, it can be explained as the endeavor of designing and creating conditions in order to change social behavior of people for a particular cause, through effective involvement of stakeholders like politicians, institutions, mass media and so on (Storgaard, 2020). In 19th century, collective housing projects were widely used for social engineering purposes, coherent with these housing ideas’ background (Ibid.) where the Industrial Revolution’s impacts were matured and led to the transformation of traditional communities. Also coherent with the period where scientific determinism was on the rise, 1820s witnessed some utopian and experimental examples of community creation attempts. Most prominent ones were Robert Owen’s New Harmony in the United States and Charles Fourier’s phalansteries (Fig. 2.2) in France (Storgaard, 2020).

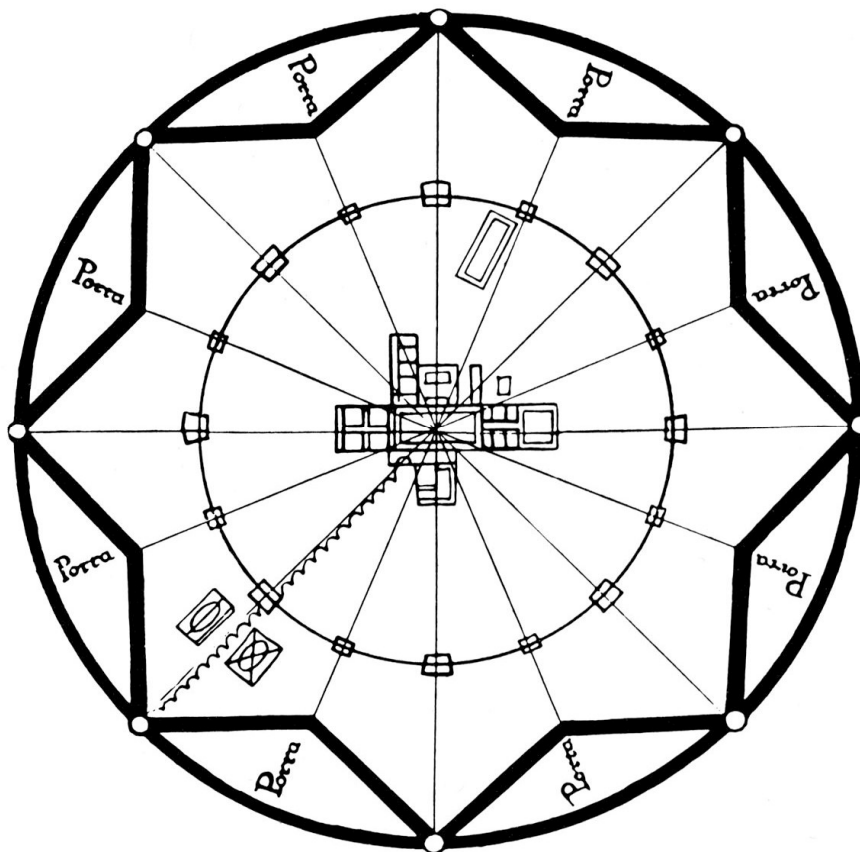


Figure 2.1 Plan of Sforzinda, designed by Filarete (Giordano, 1972).



Figure 2.2 Perspective drawing of the Phalanstery (Cunningham, 2017).

In 19th and 20th century, architects adopted or were inspired by the principles of the phalanstery: conceived as a perfect and finished design; isolated from the outer world; recreation of the street life inside the facilities; involving all necessary working, housing and recreational areas; using common space for activities like cooking and washing for social purposes (Dascalu et al., 2013). Such designs were bringing harsh limitations on the human agents, deciding how they should live; and either premising an idealized, standard user or aiming to create one. Later, these problems were also reflected in modernist architects' and New Urbanists' works which adopt similar principles (Dascalu, 2013). Overall, abundant actors of these accounts constructed or proposed designs aiming towards the premise of interdependence between inhabitants, in other words creation of a community, especially in 1920s and 1930s (Ibid.). As an essential example of this period, similar ideas combined with that period's scientific and technological ideals are reflected in Le Corbusier's "Towards a New Architecture" published in 1924, where he describes an architecture as a science or a machine to reflect the nature's perfection, aspiring after technologies of modern life.

Especially in late 1960s and 1970s, these ideals started to encounter major criticism. First of all, they were mostly criticized as reductionist and determinist approaches, as it was mentioned before. The standard human conceptualized in modernist architects' manifests were also under criticism:

It is too easy to fall into trap of thinking that as one does not necessarily know the building user, one therefore makes a building that suits everybody... average person. But average person does not exist...and designing for the average person means designing for non-existent people. (Aldington and Craig, 1980, p. 29)

Furthermore, the notion of community has been highly criticized as they create a tendency for societies to be isolated, to be more tribalistic and to classify its individual members (Goh, 2006; Joseph, 2002). On the other hand, contemporary approaches focus more on values like reciprocity and trustworthiness, such as social capital which is also debated in terms of its potentials (Dascalu, 2013).

Probably the most contemporary and still actively utilized architectural theory that shares similar aforementioned principles and criticisms is the space syntax theory. In many aspects, it exemplifies the progress and current state of the discourse explored in this chapter. It emerged as a systematic theory concerning social and spatial relations, via works of architects Bill Hillier and Julienne Hanson (Netto, 2015) in the 1980s which is a decade abundant in old and new theories and ideologies involving in the subject matter. The theory and the research program deal with a wide range of scale from in-door configurations to cities and landscapes, with an emphasis on “configuration” as “an act of turning the continuous space into a connected set of discrete units” (Bafna, 2003). Accordingly, it assumes that social structure and spatial configurations always hold some logic of each other (Ibid.). It utilizes convex or axial maps to analyze the configuration of a space in terms of access and visibility relations between parts (Ibid.), and it suggests that layout of the space “generates a field of probabilistic encounter, with structural properties that vary with the syntax of the layout” (Hillier et al., 1986). The theory has been extended to phenomenological studies (Seamon, 2007; 2012) as well as cognitive behaviour and wayfinding studies (Hölscher et al., 2007) among many other areas like culture, history, geography, economy and so on (see Netto, 2015). One of Hillier’s students, Vinicius M. Netto, argued what space syntax is and what it is not, in a recent International Space Syntax Symposium (2015). He considers space syntax as a “theory of the social logic of space” (Ibid.) rather than a “special theory of society” (Hillier and Hanson, 1984, p.18), emphasizing concepts like relation, copresence and movement. Inclined with the criticism against the theory, he explains the problem with the temporality, given autonomy of physical space, and reduction of meaning in such syntactic theory which causes further reduction of human actor and social practice. He concludes with a call for further progression of the theory via combining the strength of others rather than

sticking to an “epistemological purity” (McGlade and van der Leeuw, 1997). On the other hand, paradoxically, an already existent impurity of the discourse on this theory constitutes both the most criticized accounts of it and the accounts practically sustain this research program. This can be seen from variety of studies using space syntax methods in areas ranging from crime prevention (Nubani and Wineman, 2005; Lee and Kang, 2012) to further urban policies (Bolton et al., 2017).

2.2 What Does Architecture Do?

2.2.1 Foucault’s “History of Spaces”

Foucault explored the subjectivation process, particularly in Western societies, via analyzing emerged institutions and their architecture and further questioning the materialization of power-knowledge relations into physical space. His argumentation of architecture as a substance of modernization rather than as a cause or effect of it, in other words his attribution of a productive aspect to the architecture brought an understanding different than existing structuralist approaches on the topic.

At first glance, one can attribute such productive aspect to a determinist perspective. As it is explored before in this paper, prominent aspect of the architectural determinist perspective is inclined with a theoretical assumption of subject-object dichotomy which separates the human agency and the physical environment. In social sciences, such dichotomy has been sustained in a manner that social changes have occurred in their contemporary architectural environment and further in a manner that architectural environment is the product of social life (Gorny, 2018). Although, Henri Lefebvre’s “*La production de l’espace*” (1974) influenced a “spatial turn” in social sciences (Soja, 1989: p.16; Merrifield, 2006) to oppose structuralists, his approach was found universalistic and criticized for describing transformations through social structures (Latour, 2005). On the other hand, Foucault’s “*Surveiller et punir*” (1975) provided a different kind of spatialization in a manner that he argued processes as they occur “through—and not simply in—architectural arrangements”, without giving any theory

of social structures or attributing to them (Gorny, 2018). Therefore, architectural space is not a mere product, but also productive in his approach.

In terms of Foucault's history of spaces, Elden (2002) reports that historians largely focused on marginal issues like heterotopias and panopticon, and he suggests that this situation encouraged an incomplete understanding of Foucault. Although Foucault's work provided a new way of investigating architecture as an ensemble of means rather than a "functional container" (Fontana-Giusti, 2013), majority of studies were content with analyzing typologies as representation of power relations and mostly they could not provide a further systematic critique (Wallenstein, 2007).

2.2.2 Enabling Spaces

In his "Archaeologies of vision", Shapiro (2003) compares Foucault's perspective of architecture to Nietzsche's as a stage-like element which frames the vision. Foucault's account of vision unfolds through his works, such as he issues "medical gaze", and later "surveillance". Accordingly, in "The Birth of the Clinic" (2012; French original, 1963), he explored how new doctor-patient relations emerged within changing medical built environments. Then, in "Discipline and Punish" (2012; French original, 1975) he explored how such new practices and utilities are actualized as a *dispositif* which was translated as "apparatus" in English. He conceptualizes this term as:

...thoroughly heterogeneous ensemble consisting of discourses, institutions, architectural forms, regulatory decisions, laws, administrative measures, scientific statements, philosophical, moral and philanthropic propositions – in short, the said as much as the unsaid. Such are the elements of the apparatus. The apparatus itself is the system of relations that can be established between all these elements. (Foucault, 1980)

A term relative to Foucault's *dispositif* is Deleuze and Guattari's *agencement*. In "Mille Plateaux" (1980), Deleuze and Guattari argue how historical formations emerge as an *agencement* "in and through" a physical environment (Gorny, 2018). *Agencement* can also be conceptualized as an assemblage or arrangement which is defined and actualized by relations.

Elden points to the relation between Heidegger's "enframing", Foucault's *dispositif*, and architecture which constitutes a part of *dispositif*. It is argued that Deleuze also gives an architectural agency to the framing aspect of *agencement* (Cache et al., 1995; Grosz and Grosz, 2008), as it defines spatial relations which produce further effects. Although the *agencement* and the *dispositif* do not exactly correspond to each other, they have a common point where they provide an agential attribution between framing and architecture. On this issue, Gorny (2018) elaborates that "framing involves an 'existential production' within which spatializations (or 'territorializations') act as a sort of enabling constraint through which things come to appear in non-discursive processes."

2.3 Postphenomenology

Postphenomenology is a philosophy of technology and science, emphasizing the technological mediation of experience. Accordingly, "technologies transform our perceptions (amplify/reduce) and translate our actions (invite/inhibit)" (Aagaard, 2017). In this sense, this thesis study conceptualizes all physical architectural elements, digital elements and ICTs as such technologies.

Scholars of this perspective which was first introduced by Don Ihde (1993), developed it further and applied these ideas to many philosophical issues including technological agency, ethics, philosophy of design, and studied many topics including computer interface, virtual reality, sustainable design, bodily implants, traffic safety and so on (Rosenberger & Verbeek, 2015). Architecture and urban design disciplines' interest in postphenomenology has also increased recently (Botin & Hyams, 2021).

It builds on the phenomenological tradition of philosophy, approaching issues from the starting point of deep descriptions of human experience. Postphenomenology brings together the phenomenological approach and the ontological commitments of the American pragmatist tradition of philosophy. This means that postphenomenological claims are never about the absolute foundations of reality or knowledge, and never about the "essence" of an object of study. Instead, postphenomenological claims are posed from an embodied and situated perspective, refer to practical problems, and are empirically oriented. To both phenomenology

and pragmatism, postphenomenology adds a focus upon case studies of human-technology relations. (Rosenberger & Verbeek, 2015)

Aagaard (2017) summarizes how this perspective is different from Husserlian and hermeneutic phenomenology traditions:

First, it is not concerned with immaterial subjectivity, but with bodily relations to technologies. Embodiment thus replaces Husserlian consciousness and its ‘disembodied view-from-nowhere’ (Ihde, 2008, p. 3). Second, it is committed to the notion of multistability, which ontologically replaces the essences of Husserlian phenomenology and refers to a technology’s various partially determined trajectories in different contexts (Ihde, 2009). ... Finally, Ihde (2009, p. 63) holds that hermeneutic phenomenology remains under the influence of a linguistic turn in twentieth-century continental philosophy in which ‘the silent privilege of the linguistic continued to hold sway’. Ihde replaces this postmodern world-as-text metaphor with a perceptual-bodily referentiality. The anchor in postphenomenology, in other words, is embodiment. This bodily focus owes a great debt to Maurice Merleau-Ponty. (Aagaard, 2017)

According to Ihde (1990), technologies actively mediate our everyday being-in-the-world. Resonating with discussions on architectural determinism in this thesis study, Aagaard (2017) further explains:

Peter-Paul Verbeek (2005) has further developed postphenomenology by drawing on Bruno Latour’s actor-network theory (ANT) to argue that technologies not only transform our experiences (through amplification and reduction), they also translate our actions. Such translations have the structure of invitation and inhibition: Technologies invite or solicit certain actions while inhibiting others. ... Any given technology has a certain directionality, inclination, or trajectory that promotes a distinct way of being used. But technologies do not afford these action possibilities to preexisting subjects with fixed goals and desires. To Verbeek (2005), the term ‘mediation’ designates how technological artifacts influence the relation between subject and world, so that both entities emerge only in their connectedness with each other. In this mutual constitution of subject and object, mediation becomes the origin of entities rather than a middle position between them. Postphenomenologists thereby dismiss what Verbeek (2009) calls apartheid metaphysics and instead regard material technologies as active mediators of human

perception and action. Against the modern image of the autonomous subject, postphenomenology emphasizes an amodern, heteronomous subject whose comportment is always closely interwoven with the material environment in which it plays out (Verbeek, 2011). This technological mediation of intentionality, however, does not imply an elimination of human freedom. Technologies do not determine what we do: They set up spaces of possibilities that enable and constrain certain actions and perceptions, but the room for maneuver within these spaces is what constitutes human freedom. Human freedom is not an absence of technological influences, but the practice of coping with such influences. ‘Rather than clinging to a view of human freedom as absolute autonomy and sovereignty from technology, it seems wise to reinterpret freedom as a person’s ability to relate to what determines and influences him or her’ (Verbeek, 2011, p. 156). (Aagaard, 2017)

The posthumanist distribution of agency to humans and technologies calls attention to an abundance of overlooked yet relevant features of the human lifeworld. ... The method neither searches for unchanging truths nor moves its readers through poetic imagery, but meticulously explores ‘what things do’ (Verbeek, 2005). Or, to put it in more formal terms: Whereas descriptive phenomenology can be seen as modernist in its search for essences, and hermeneutic phenomenology’s textualism resembles postmodernism, postphenomenology is closely aligned with the new materialisms of Donna Haraway, Bruno Latour, and Andrew Pickering in which materiality plays subtle and deep roles (Ihde & Selinger, 2003). (Aagaard, 2017)

On the first—ontic—level, pragmatism is included in postphenomenology to ensure correct descriptions of the phenomenon. Here, pragmatism concerns the content of the phenomenon, which is ontic insofar as it concerns the character of the beings or constituents within the human-technology relation. In what follows, we will refer to this as “content-pragmatism”. It implies that postphenomenology denies the constituents in human-technology relations a stable, essential identity, and instead understands this identity in an anti-essentialist way, which is to say as multistable and dependent on use-context. Reiterating Ihde’s example: within a specific human-technology relation, the subject is constituted as woodchopping-subject, the piece of wood is constituted as potential firewood, the axe is constituted as embodied, etc. ... Investigating specific technologies and their respective mediations as appearing in specific use contexts implies investigating technologies empirically, or taking the empirical turn. ... we can define the postphenomenological method as the

empirical inquiry into the structural ways in which particular technologies mediate experiential correlations and associated subject-object constitutions that appear in specific contexts of technology use. (Zwier, Blok & Lemmens, 2016)

In this sense, this thesis study conceptualizes both physical architectural elements and digital spatial elements as technologies with agency as part of technology mediated experiences of employees teleworking from-home. Therefore, preconditionally it aims to analyze cases of such experiences in order to gather insights about how these technologies enable or constrain particular perceptions and/or behaviors in particular contexts.

2.4 Organizational Space and Power

2.4.1 Theoretical Background

2.4.1.1 Power in Organizations

As a common sense, power is considered as a property of a person or a group of people. Humanities and social sciences, from classical political analysis to modern social theory, have been dominated by similar perspectives on account of the power concept for a long time. Additionally, power is abstracted as a determining force. This abstract force is assumed to be involved in the systems or societies having access to scarce resources such as raw materials, labor, or territory etc. Accordingly, it is considered that powerful systems determine the well-being potential of less powerful. In terms of political and social systems, power concept is treated both as a dynamic to drive the change and as a product of the change. On the other hand, there is a large variety of theoretical frameworks scrutinizing its definition and its particular usage. This section of this literature review provides a brief history of the power concept as it is considered in these frameworks from Marxism to Critical Management Studies (CMS), including the critiques of them.

As a concept, power can be traced back to the ancient Greeks. According to Plato (1964), political power and philosophy should come together, as in case of a

hypothetical philosopher ruler, in pursuit of the ideal society. Many elite theories of politics like the one of Machiavelli (15th c.) find their legitimacy in Plato's idea about power. Such elite theories (e.g. ones of Pareto, Mosca and Michels in 19th c.) of power have been considered highly undemocratic, and had to defend against certain empirical developments (Knights, 2009).

2.4.1.1.1 Classical Theories

For Marx and many Marxian theorists, power is highly related to the oppressive capitalist state and to the ideology which Marx articulates as the distortion of truth (Knights, 2009). Accordingly, power is a coercive force, and it actively constitutes an obstacle between people and freedom, and between people and their realization of their own potential. Workers are materially and symbolically alienated from the products that they worked to produce. Their living is economically dependent on the capitalists. Only way to free themselves from their dependency (i.e. wage labor) is collective resistance and political revolution. However, knowledge is systematically distorted by capitalist ideology. Therefore, workers are separated from the idea that they have capacity to realize a revolution for emancipation.

For the Frankfurt School of critical theory and particularly for Habermas, distorted communication was mainly sourced by power. Although his work has been criticized for its idealism and limited usability in empirical research, critical management studies has been highly influenced by Habermas and how his works involve perspectives like Marx' and Weber's, symbolic interactionism and emancipation (Knights 2009).

As another inspiration for CMS, Lukes (2005, first published in 1974) analyzed three different perspectives on power. First one (Dahl, 1961) is one dimensional. According to this perspective, power exists in situations where particular types of observable conflicts occur. In these conflicts, one party is capable of asserting its will to provide obedience of the other party which is initially resistant. However, this perspective neglects where such observable conflict is deflected. Second perspective (Bachrach and Baratz, 1970) is two dimensional. Accordingly, potential conflicts are concealed by the ones who exercise power because they control the agenda. Lukes (2005) offers

a third dimension in the subject matter. According to him, power involves not only removing or concealing the potentials of conflicts, but also defining the situation. In such a situation, subordinates internalize the norms defined by those who exercise power, and act accordingly even if it is against their initial interests. He conceptualizes power as oppressive and autonomy as emancipatory.

Foucault provided a more complex account of power concept. He suggested that power and knowledge are not opposed, on the contrary they reinforce each other (Knights, 2009). For Foucault, power cannot be eradicated since power and social relations are synonymous. It can be resisted, but this only changes its form. Nevertheless, Foucault made a certain distinction between power and domination as such that power can be productive and positive. According to him, only way to achieve such positive and productive power was acknowledging and cherishing the creative freedom of subordinates.

2.4.1.1.2 Mainstream Theories

Knights (2009) provides a selective summary of mainstream organization theory. Accordingly, there are two opposite views of power in mainstream organization theory. One is that power is inevitably significant for management and survival of the organization, and the other is that power has a negative impact on how organization functions when it is exercised different than its formal hierarchy (Knights and Murray, 1994). Nevertheless, crucial assumptions of both views are derived from a functionalist or systems model. This model approves power as far as it does not constitute a negative impact for existing (social, management, organizational) order with its unequal distribution of scarce resources. Therefore, none of these mainstream theories consider the exercise of power as a medium or outcome of known social inequalities.

One of these theories is contingency theory where the link between the success of an organization and its adaptation to the market, technology and social environment is emphasized. In further attempts, proponents tried to provide a causal analysis of organizational structure, by measuring variables (e.g. hierarchy) seen as indicators of

power and their determinants in the environment such as market, technology, etc. Consequently, this theory was criticized as too deterministic. (Knights, 2009)

Another is the resource dependency theory. In this theory, power is highly related to the control over resources to an extent that alliances in an organization or between organizations are determined only by demand for such control (Pfeffer and Salancik, 2003). Accordingly, increasing the organizational power is crucial for organizational success (Pfeffer, 1981), and it is considered as a resource that is utilized by those who exercise it to achieve control over resources and eventually reproduction of power itself.

Another one, institutional theory, development of which can be attributed to rejection of individual economic rational self-interest as crucial for institutional life (Knights, 2009), is linked to the concepts like “bounded rationality” (Simon and March, 1958). According to this concept, individuals aim to satisfice in terms of personal goals. For being able to examine institutional practices in the right context where individuals are situated, culture is highly focused in new institutionalism in the 1980s (Knights, 2009).

Pluralism and stakeholder theory can be conceptually traced back to the 1960s. With the impact of collective protests on Western economies in 1960s, it was realized that value-consensus perspectives could not explain conflicts of interest and resistance to power appropriately. Pluralism and stakeholder theory gave a framework to investigate accounts of various interests like suppliers, government, environmental protestors, consumers, etc. However, it was seen as a modified version of value consensus approaches because managers, in this approach, were considered as politically neutral. Another criticism is about how pluralism cannot see that power and interests are not independent. (Knights, 2009)

2.4.1.1.3 Critical Management Studies (CMS)

It is not possible to examine CMS as a homogeneous and universally agreed discourse. Indeed, a major preoccupation of CMS is “questioning of taken-for-granted, both

about practice and its social and institutional context. ... Identifying and questioning both purposes, and conflicts of power and interest” (Reynolds, 1998, p.192).

In CMS, power has always a central focus because it is considered that any concern of an organizational study is related to the exercise of both individual and organizational power which sustains social inequalities. These inequalities or the culture they are embedded in can be challenged only through resistance which is also a form of power. Given revival of Marxist labor process theory by Braverman (1974), earlier modern critical studies were highly concerned with class inequality. Later, CMS was born in Europe and then in the US to get out of predominance of neo-Marxism. On the other hand, Foucault’s theories were frequently adopted. (Knights, 2009)

Foucault’s concept of power has distinct differences compared to the traditional view. For him, power is not in opposition to knowledge, resistance, subjectivity or freedom (Knights and Vurdubakis, 1994). Power can be positive, facilitating and productive as well as negative, constraining and destructive as far as subjects are free rather than dominated through power exercised over them. Such domination is reflected in that power is exercised only to determine subordinates’ behavior exactly based on vision of those exercise it. Power and knowledge, which Foucault highly focused, utilize and stimulate each other. Both resistance and power are not centralized but spread all over the network whether it is a small organization or the whole society (Foucault, 1980). About that CMS has highly focused on Foucault compared to CMS’ relation to Marx, Knights (2009) concludes as:

By contrast, Foucault made a radical break to recognize that power is a relation whereby its exercise is predominantly about appropriating the power of the other for specific purposes and that this invariably involved both the utilization and production of knowledge. It also has effects in transforming individuals into subjects that secure their sense of themselves (i.e. meaning and identity) through engaging in the practices that such power/knowledge relations invoke (Knights 2002, 2006). While this conception of power is compatible with the spirit of Marx's view, it is more incisive in pursuing critical research on management and organization since as well as encapsulating the idea of exploitation it also draws attention to subjugation through subjectification and self-discipline.

2.4.1.2 Organizational Space

Time and space are highly related in many fields of scientific research and everyday life, but it has been different in social sciences for a long time in a manner focusing on the analysis of time (Taylor and Spicer, 2007). However, scholars suggest that new perspectives and methods are emerging in organizational studies as the notion of space is increasingly being integrated in the area (Taylor and Spicer, 2007; Beyes and Steyaert, 2011). In order to illustrate this change and how the notion of space is used in organizational studies, we need to look at the socio-spatial thought that has given rise to the “spatial turn” (Soja, 1989: 16) in social sciences. Although organizational studies of 20th century’s last decades are criticized as they could not fully grasp such spatial turn (Taylor and Spicer, 2007), it affected the area largely in the following decades. Indeed, Lefebvre’s spatial thought and his book named *The Production of Space* which is promoted as “the event within critical human geography during the 1990s” (Merrifield, 2006: 103) are considered as a source for a minor spatial turn in organizational theory (Beyes and Michels, 2011; Dale and Burrell, 2008; Halford and Leonard, 2005; Taylor and Spicer, 2007).

Looking at the organizational studies through a large framework, there is a very high variety of empirical and methodological interests involved in research area of organizational space. For example, range of the explorations in the area includes how to reconfigure the organizational space to save money (Albrecht and Broikos, 2001; Daniels, 1994), how to manage the space to affect employee and customer behavior (Bitner, 1992), how physical space give information about organization’s culture and identity (Gagliardi, 1990; Yanow 2006) critical examinations of the connection between space and power (Dale and Burrell, 2008), hybrid workspaces (Halford, 2005), how physical, social and mental space enacts boundaries (Hernes, 2004), and so on. In terms of conceptualization of space, however, literature provides some major frameworks. Taylor and Spicer (2007) identify three major conceptions of space, involving different definitions of space, different key analytical concepts, approaches and data collection methods (Table 2.1). These conceptualize the space as distance, and as lived experience, and as materialization of power relations.

Table 2.1 “Formations of space” (Taylor and Spicer, 2007)

	Definition of space	Key analytical concepts	Approaches	Dominant data collection methods	Key studies
Space as distance	Measurable relations between points	Physical distance between people, resources, customers and competitors	Ergonomics; Office design; Population ecology; Social ecology; Network analysis	Measured distances, diagrams	Baum and Mezias 1992; Brookes and Kaplan 1972; Bitner 1992; Greenhut 1956; Hatch 1987
Space as experience	Understanding and interpretation of space	Symbolism; Aesthetics; Actors; Interpretation; Discourses	Organizational cultural studies; Interpretive organization studies	Nonparticipant observation, interviews; Visual data	Berg and Kreiner 1990; Cairns 2002; Ford and Harding 2004; Yanow 1998
Space as materialized power relations	Relations of domination made material	Workspace; Architecture; Work and nonwork divide	Employee relations; Labour Process; Theory; Foucauldian organization studies	Interviews, participant observation	Collinson and Collinson 1997; Sewell & Wilkinson 1992

2.4.1.2.1 Space as Distance

This conception referring to Euclidian geometry treats the space as the physical distance between points (e.g. buildings, resources, employees, facilities, customers, etc.). At the level of industries, for example studies explore the relation between agglomeration of firms, physical distance and transportation costs (Greenhut, 1956), firms tendency to cluster around critical human resources (Zucker et al., 1998). Some studies argue how the proximity to competitors influences locational decisions of firms (Sorenson and Audia, 2000), firm morality rates (Wade et al., 1998), while some others study resource spaces as networks and focus on relation between clustering of firms and knowledge spillovers sourced by co-location (Jaffe, 1986), and social networks allowing knowledge transmission (Jaffe et al., 1993).

Furthermore, probably the most commonly investigated topic of research in organizational space is the workplace layout focusing the distance between architectural objects, furniture, employees, facilities, etc. Scope of a large body of research in this area ranges from the impact of workspace layout on behavior (Arge, 2000; Brookes and Kaplan, 1972; etc.), on information sharing and creativity (Meyerson and Ross, 2003), on employee satisfaction (Sundstrom et al., 1980), to the impact of virtual organizational spaces (Cascio, 2000; Shin, 2004).

Although this conception and its studies display the significance of the spatial dynamics in organizational life through a very practical methodology in terms of issuing spatiality, this practicality brings its shortcomings too. Firstly, studies solely focusing this concept cannot explain situations where actors attribute meaning to a space (Halford, 2004). Secondly, they disregard that different configurations of space are actually different types of manifestation of power relations (Harvey, 1973).

2.4.1.2.2 Spaces as Lived Experience

This approach concerns how spaces are manifested in their inhabitants' different experiences, such that the way a student experiences a classroom differs from the way a teacher does. Knowledge accumulated in social science upon cultural and linguistic turns became a source through which organization and management research area commit to explore such experiential differences. Approaches like organizational symbolism (Gagliardi, 1990) and organizational aesthetics (Strati, 1999) aimed to provide an awareness of how people experience organizational spaces by involving cultural and sensory means, and they questioned the relation between objects, language and objective reality. Although these approaches were criticized as unscientific regarding its research methods and mode of representation (Taylor and Spicer, 2007), symbolic and aesthetic aspects are focused to understand how people experience an organizational space. Some researchers studied how open-plan offices symbolize openness, accountability but also exposure and control at the same time (Hatch, 1990), and what a building might reflect about the culture and identity of an organization (Berg and Kreiner, 1990). These aspects have received more attention by

the late 1990s (Galison and Thompson, 1999; Gieryn, 2000; Yanow, 1998). However, there are still two major criticisms about this approach in terms of organizational space research. Firstly, relying on only aesthetic aspects can conceal those already embedded power relations from inquiry (Cairns, 2002). Secondly, these approaches ignore the material aspects of organizing and managing (Willmott, 1993) which are fundamental for organizational space.

2.4.1.2.3 Space as Materialization of Power Relations

This approach has been highly inspired by Marxian thoughts. For Marx who also observed and intellectualized organizational spaces of 19th century United Kingdom, spaces like regions, cities, neighborhoods and factories reconfigured by industrial capitalism were reflecting power relations (Taylor and Spicer, 2007). Later, company towns have been studied (Jeremy, 1991) as their spatial configuration reflects social and economic aspects of production (Veninga, 2004), to an extent that Silicon Valley was examined as a new version of 19th century ideal (English-Lueck, 2000). In social geography, it is suggested that capital influences the construction of proper infrastructure to acquire a disciplined labor force and better circulation of goods in the city, and thus to give a “spatial fix” for the continuous drive of the capital to increase (Harvey, 1973; 1990). In terms of organizational spaces, disciplinary gaze is focused most commonly to explore materialization of power relations. Foucault (1991, 148) argues that:

It is spaces that provide fixed positions and permit circulation; they carve out individual segments and establish operational links; they mark place and indicate values; they guarantee the obedience of individuals, but also a better economy of time and gesture. They are mixed spaces: real because they govern the disposition of buildings, rooms, furniture, but also ideal, because they are projected over this arrangement of characterizations, assessments, hierarchies.

In the early phases of industrial development, visual surveillance of production and behavior was commonly implemented (Jacques, 1996). Architects and interior designers have been employed to design spaces allowing and/or enhancing such

surveillance (Henley, 1977). As organizational spaces start to become bigger with increasing number of supervisory personnel, workspaces ensuring such surveillance became unaffordable (Collinson and Collinson, 1997). Consequently, new techniques were developed to rely on the internalization of discipline more than visual surveillance (Sewell and Wilkinson, 1992).

In scope of this conception of space, architecture (Guillén, 1998), workplace layout (Sewell and Wilkinson, 1992), and work environment (Baldry, 1999) are considered as essential for building and sustaining power relations. On the other hand, people do not always abide to the strategies of controlled spaces, and they can practice it very differently (De Certeau, 1984) as well as they use or experience it.

Another significant aspect of the approach is the relation between work and non-work as in the situation of company towns where employers tried to distinguish work environments and local communities (Taylor and Spicer, 2007). In early 20th century, such separation also began to be observed in configuration of space to an extent that modern industry's reconfiguration introduced a spatial division between public workspace and private domestic space (Weber, 1922) and thus between genders as they are assigned to one of these spaces (Ferguson, 1984).

Introduction of culture management and developments of information technologies blurred the separation between workspace and the home (Perlow, 1998), and practices of organizational space started to be involved in domestic life as workers are expected to involve in sentimental experiences which mostly related to private part of life (Bell and Taylor, 2004). Despite the evidence of that working from home is beneficial for individuals (Baruch, 2000) and organizations (Huws, 1993), a lot of managers request workers to be physically present at the workplace and this presence is highly influential in performance evaluations (Ezzamel et al., 2001).

A major significance of this approach conceptualizing organizational space as materialization of power relations, is lied in its contribution to place the focus of analysis to why spaces are arranged as they are rather than how surface manifestations of organizational space operate. However, there are some criticisms about it. First, considering all spaces as necessarily a manifestation of power relations disregards

possible influence of other processes on arrangement of organizational spaces. Second, focusing on how employees are controlled via spatial arrangements might mislead researcher to overlook how people can resist such manifestations or domination through living and practicing space differently. (Taylor and Spicer, 2007).

As it can be deduced from the summary above, there is an empirical and analytical separation between the ways in which scholars tend to conceptualize organizational space. Furthermore, any conceptualization brings criticism as it neglects other crucial criteria. However, such separation is not only evident in scope of this set of concepts provided by Taylor and Spicer (2007). As it was mentioned at the beginning of this section, scholars of organizational space are highly influenced by Lefebvre's spatial thought, especially in early 21st century. Lefebvre (1991: 33, 39) provided a 'spatial triad' to understand space: conceived space (representation of space with an emphasis on its design and physical forms), lived space (representational space with an emphasis on symbolism and how inhabitants/users experience and appropriate it through clandestine or underground experiences), and perceived space (spatial practice with an emphasis on production and reproduction of space, daily routines and urban reality maintaining the social competence and performance). Similar kind of aforementioned separation is also observed among organizational space researchers who tend to put an extra emphasis on one term of the triad, or simply focus on one in a restricted manner (Beyes and Steyaert, 2011; Taylor and Spicer, 2007). On the other hand, Lefebvre (2003) repeatedly points out that it is crucial to consider the three terms as they simultaneously influence each other.

2.4.2 Power and Physical Office Space

2.4.2.1 Power as a Neglected Concept

Study of Lipman et al. (1978) gives a retrospective account of office design studies published after World War II, or in other words during the first decades of digital revolution. They provide some field studies of their own along with a literature review regarding that era. They report that the change is stressed as a major issue of context

in studies from this period; change in the content, scale, scope and technology in terms of office work which brings a necessity of change also in configuration of office space. This consequent change in office designs has been developmental from traditional cellular designs (with single offices, corridors and lobbies) to open-plan (with all desks and equipment placed in one large space without partitions) and then to landscaped offices (with desks and equipment grouped functionally in one large space). While how different office layouts can accommodate different type of office works was a major issue in those decades, those studies have displayed a common managerial viewpoint in which efficiency and productivity were seen as overriding goals to an extent spatial planning were considered as a direct and functional management tool. On the other hand, power could not have much emphasis nor analytical attention. Furthermore, notions related to power were tackled in a bland manner such that supervision was issued as sensitive guidance but not as surveillance; or that some acknowledged terms like “line of authority” and “line of command” were replaced by “working relationship linkages” and “structure and interaction clusters”. In this mentioned study, Lipman et al. (1978: 35) also criticize limitations of “survey-like” methods they adopt from literature in order to conduct their field study and conclude by criticizing their own initial proposal and methodology with “the apparent intention to found a structured, survey-like, study on a heuristic, open-ended, conceptual base”. Furthermore, they draw a new aim: “clarifying the manner in which office personnel use the spatial resources of their settings to sustain, reinforce and challenge their social relationships.”

As it can be deduced from the theoretical background presented in this chapter, approaches which at least considerably involve power relations in this area of research increases in following decades, especially following the so-called spatial turn in the organizational theory. Studies in this wide research area are always criticized about their approaches, and reductionist viewpoints. Such criticism can be partly related to the dominant position of critical managements studies and thus the awareness -which CMS also nurtured- about multileveled and intertwined nature of the subject matter. As it was mentioned before, there are major criticism on approaching space as materialization of power relations and criticism on attempts misinterpreting

Lefebvre's spatial triad. Additionally, in terms of architectural design, there are always missing parts and neglected aspects when it comes to designing or studying how to design with respect to the psychological and social impacts of built environment. Criticism of architectural determinism, the "fall" of architectural psychology, and thus avoidance in architectural design discipline (as discussed in the previous chapter) can partially explain the dominant position of disciplines like organizational studies, sociology and environmental psychology among the literature reviewed in this chapter. For these reasons, next section will explore how this research area -with relatively lacking attention from architectural discourse- issues physical office space which is initially an architectural playground.

2.4.2.2 Trade-offs in Office Design

Beginning around 1980s, literature provides more studies which focus on key features of office layouts rather than the general type of the layout. For example, Zerella et al. (2017) suggest architectural privacy, visual access, physical proximity and workstation equality as key features which are frequently studied in terms of physical work environment's impact on human interaction, and thus they focus on these features. Elsbach and Pratt (2007) review empirical research on physical organizational workspaces, and argue that some common elements are frequently associated with both advantageous and disadvantageous outcomes. They suggest that these common trade-offs between outcomes are crucial to explain the role of physical environments in organizations. Based on their review of research (published in 1980s, 1990s and 2000s) from organizational journals (e.g. Journal of Organizational Behavior, Academy of Management Journal) and environmental psychology journals (e.g. Journal of Environmental Psychology, Environment and Behavior), they (Elsbach and Pratt, 2007: 184) discuss four common design elements: "(1) privacy-enhancing enclosures and barriers in work spaces; (2) adjustable work arrangements, equipment, and furnishings; (3) personalization of work spaces, including the display of well-known symbols; and (4) nature-like ambient surroundings, including natural light, presence of plants, wood interiors, views of nature, and natural aromas."

Furthermore, they propose an outline (Figure 2.3) of these trade-offs and guidelines for managers and researchers.

Elsbach and Pratt's (2007) suggest that physical design elements of a workspace have three major functions: aesthetic, instrumental and symbolic; and that trade-offs are realized between these categories or between their subcategories. This proposal -which comes from outside of the architectural discipline- carries a resemblance to Vitruvian Triad: *firmitas*, *utilitas*, and *venustas* (i.e. stability, utility, beauty) (Pollio, 1914) or other similar proposals categorizing and emphasizing virtues or functions of a good architecture in architectural discourse through history. Furthermore, learning how to manage such trade-offs is one of major fundamentals for architectural education, practice and theory.

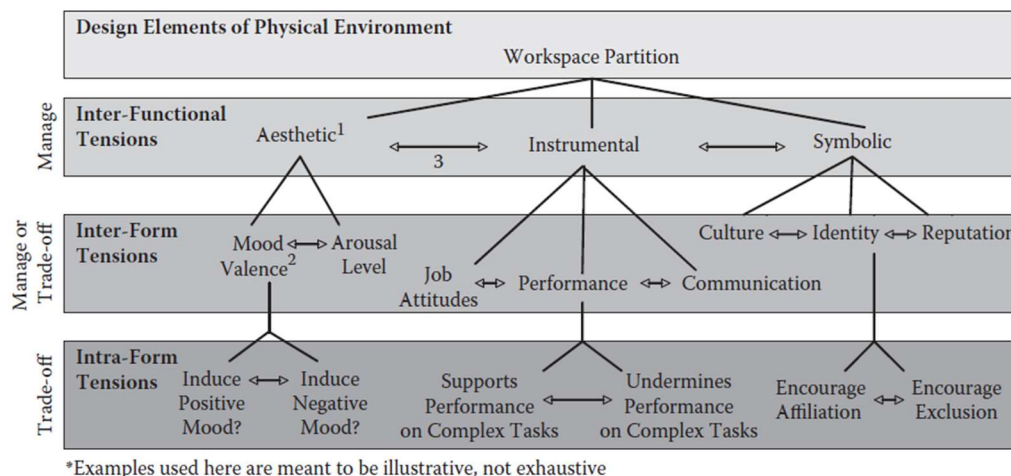


Figure 2.3 “Basic functions (1), forms of functions (2) and tensions (3) embedded in physical environment— Examples used here are meant to be illustrative, not exhaustive” (Elsbach and Pratt, 2007)

Trade-offs are not limited to a perspective focusing on physical elements and their possible effects. For example, in another study of Elsbach (2003), she explores identity threats and affirmations in non-territorial workspaces (i.e. hot-desking). Grounding in research on situated identities (Alexander and Lauderdale, 1977; Ibarra, 1999) she proposes four categories of workplace identity: personal distinctiveness, social distinctiveness, personal status and social status. She investigates how people working

in a non-territorial work environment think and behave according to physical arrangements and regulations in the office. She tries to understand what these people consider as an identity threat and which type of it, and how they attempt to affirm their identities. She reports that when a category of identity is threatened (e.g. via losing an associated physical marker), people generally attempt to affirm the same category of identity. However, she also reports that some people start to emphasize and affirm alternate identity categories other than the one threatened, such as affirming personal distinctiveness when social distinctiveness is threatened. These findings introduce another aspect which is also subject to trade-offs, but this time on account of inhabitants' self-categorizations. This also constitutes evidence against the type of "architectural determinism" employed by architect or non-architect scholars in the field.

2.5 State of the Art

2.5.1 Co-Development of Architecture, Organizational Psychology and Technology

Scientific research on humans' relation with space is not something new. Crystallized with psychology and psychotherapy fields' problematization of the issue in late 1950s and 1960s, the issue attracted interdisciplinary view especially with architecture disciplinary efforts. These efforts can be attributed to "design methods movement" - emerged with scientific enthusiasm and endeavor after Second World War. Changing work conditions of the same era highly affected and utilized the field in general. Both in the absence and presence of concerns from psychology discipline, the relation with office space planning and organizations has been a vast area of research in itself, producing different design typologies like traditional cellular, open-plan, landscape, activity-based, hotdesking and so on. In rest of the 20th century, research on human-space relations witnessed many interdisciplinary efforts, relatively compartmented in a sense of selective combination of particular disciplines and philosophical attitudes. Late 20th century provided important developments in information and

communication technologies (ICT) and these also highly affected those compartmented interdisciplinary areas both theoretically and empirically. Virtual Reality technology (as we know today) started to be developed in 1990s, but could not meet the expectations. In 21st century, VR technology developed more and became affordable so that virtual environments (VEs) did not only start to be used more as a tool for research but also started to be issued as architectural environments and even further as a potential “place” for social inhabitation. Architecture and VR field fed each other during the 2000s, helping each other respond to old questions and ask new ones. However, a lack of new theories and new methods started to be felt. In 2010s, neuroscience contributed the research area more than before (Bower et al., 2019); and provided promising developments both theoretically and empirically. Interdisciplinary collaboration between architecture and neuroscience in this decade can be interpreted as a result of intimacy started in late 1990s and 2000s.

In order to understand the state of art in scope of this study, we need to concern the developments in aforementioned compartmented interdisciplinary areas and their relations with each other, namely architectural psychology, organizational studies and their relationship with technology. After progressive developments intertwined with various solid criticism in 20th century, in 2000s, architectural space’s impact on humans’ psychology and behavior was acknowledged more as well as problems related to theoretical and empirical bases. This can be seen from studies analyzing and comparing relative discourses from architectural psychology, neuropsychology, philosophy, geography and so on, and articulating new and more comprehensive theoretical and methodological frameworks increasing and maturing in 2010s (e.g. Coburn et al., 2020; Jelić et al., 2016; Gorny, 2018; Brooks, 2015; Rooney, 2016).

With those approaches matured in 21st century, research concerning the relation between humans, organizations and physical office space also matured in 2010s (Khazanchi et al., 2018; Davis et al., 2019; Vaidya, 2019; Sander, Caza and Jordan, 2019; Nag, 2019; Motamed, 2016). First, it started to be acknowledged in studies (outside of architectural discipline) that indoor physical elements and arrangements in organizational spaces have many situational advantages and disadvantages simultaneously and no physical design is free of trade-offs (Elsbach and Pratt, 2007;

Vischer, 2008). Accordingly, “organizational culture” started to gather more attention from researchers (Maslikowska and Gibbert, 2019; Anthony, 2015; Zerella et al., 2017). Furthermore, these developments render irrelevant the binary state of the long-lasting debate on “open-plan” (i.e., Is it ‘good’ or ‘bad’ design?) and similar debates on any other typologies.

Another important area for this study is the intersection of working conditions, organizational space and technology. With introduction of different generations of ICTs (e.g.: computer and telephone; laptop and mobile phone; tablet, smartphone and cloud systems etc.) the concept of working out of employer’s premises has been developing, changing and being integrated more in our lives since 1980s (Messenger & Gschwind, 2016). Although it was scarce and limited on empirical base, in 1990s, academic research followed from behind the technological development because of delay on telework adoption and managerial resistance. Since then, this concept is studied with various names, definitions, and contexts. With introduction of affordable VR technologies and its use in research, new modes of working are researched in the academy. However, the term “virtual” has been also used to define different types of working conditions which creates misconceptions and ambiguity in both academic literature and mainstream, such as that virtual office is more or less defined as any condition where employees can contribute from anywhere by using any New ICTs (e.g.: smartphone, cloud system etc.).

2.5.2 Developments in Theory and Practice of Virtual Work

In terms of virtuality, this study involves both conditions in a spectrum; use of ICTs in a physical environment and fully immersive virtual environments which are 3D immersive environments generated in computer environment, and which can be experienced by users via use of special 3D head-mounted-displays (HMDs) as in immersive virtual reality (IVR). Considering that all relative conditions intrinsically involve both physicality and virtuality in varying proportions, issued spectrum is of mixed reality (MR).

Since VR technology is not widely adopted yet to an extent that any organization's employees all use it to remotely contribute to work, there is a lack of research on fully immersive virtual organizational environments. However, there are few related mediums investigated in the area. A branch of research concerning spatialization of social aspects investigates virtual worlds (e.g. Second Life) as medium/environment. Virtual worlds are not necessarily experienced via special HMDs for high immersion, but they provide synchronous and persistent online 3D spaces in which users are represented with avatars. Although virtual worlds were already inhabited by companies like IBM, Coca Cola, and Nike in 2000s and yet they decreased their online presence in 2010s -attributed to similar technology adoption problems-, nowadays issue of virtual worlds are revitalized for research to focus on (Aten, 2020). Main idea behind this is assertions that virtual worlds' capability to provide appropriate spaces for social aspects (i.e. social affordance) and its compensating its lesser immersion (compared to IVR) with lesser potential for isolation (compared to non-social IVR) through its third-person view feature.

Another branch of research focuses on immersive collaborative virtual environments (ICVE) which is conceptually most related to the aforementioned IVR technology. These environments provide 3D immersive spaces where users remotely, simultaneously experience via HMDs, and communicate, learn, create and collaborate with each other as if they are in the same room. Although this technology and related empirical studies are not new, last decade displays an increased interest of scholars in this area with the aid of further development of VR technology including both visualization and interaction tools. Topics of these studies range from fundamental technical areas like manipulation of georeferenced datasets (Rossa et al., 2019) or system and software architecture of ICVEs (Paiva et al., 2017) to areas focusing the context and purpose of use like collaborative learning and teaching environments (Greenwald et al., 2017; Afrooz et al., 2019), emergency response, training, and decision making (Sharma et al., 2017) and interactive and multimodal virtual mind map applications (Kut'ák et al., 2019). Increasing development in artificial intelligence (AI) and machine learning (ML) areas in last decade also provided new directions in ICVE studies, such as analysis of behaviors and facial expressions during

virtual meetings (Porwol et al., 2019), learning analytics for assessing educational VR applications (Gorham et al., 2019), development of immersive collective intelligence to support (e.g. military) decision making (Mittrick et al., 2019) and so on. In other words, there is an increasing academic motivation to intersect AI, ML and VR to create artificial environments and interfaces which can think and learn for better interaction with humans (Zhu et al., 2018). Additionally, in last years, social aspects in ICVEs started to gather more attention with development of applications like “VRChat” which was first released in its development state in 2014, then released in “Steam” platform, and then released for wireless VR sets in 2019. This line of research can be exemplified with studies about interpersonal affordances and social dynamics (Buck et al., 2019), group interactions in social virtual reality (Moustafa & Steed, 2018), capabilities of social ICVE applications with relevant privacy concerns and ethical risks (Li et al., 2020). However, there is theoretical gap and lacking knowledge about psychological and behavioral relations between humans and immersive collaborative virtual spaces.

Turning to the common use of the term virtual in the area, research on virtual work has tended to grow in a manner clustered around various domains and traditions of scientific research. Raghuram et al.’s (2019) comprehensive co-citation analysis of the literature also supports this argument. They present their findings about three main clusters which are telecommuting, virtual teams, and computer-mediated work, comparing them across studies’ conceptualization of and focus on the dispersion and technology dependence. Accordingly, telecommuting research cluster primarily focuses on the analysis of individuals, the dispersion (with an emphasis on office and non-office contexts), temporal flexibility and much more on locational flexibility, and the need of infrastructure upon consideration of present ICTs as a handicap in comparison with face-to-face communication. Virtual team research primarily focuses on the analysis of teams (and some of individuals), diversity and team’s use of collaborative technologies, time zone differences, configuration of geographical subgroups and isolates, and again how ICTs being a hindrance. On the other hand, computer-mediated work (CMW) cluster primarily focuses on the analysis of each individual, group and organization levels, the technology dependence (emphasizing

technological context over organizational context), comparison of synchronous and asynchronous communication, comparison of co-location and distribution (but often in lab settings), the technology-mediation as an affordance to an extent of potential improvement over face-to-face communication, and wider scope of ICTs compared to other research clusters.

Especially in the last two decades with widespread use of ICTs all around the world, many companies of every scale tried virtual and remote working with various policies and applications. Companies' anticipation about increasing productivity, reducing costs of building and commuting, and reaching a much larger talent pool was a leading force in this process.

In 2000s, big companies celebrated their telework success stories via mass media. However, an opposite trend was observed in 2010s. For example, in 2006, Best Buy announced 35% productivity increase in departments shifting to remote work (Goman, 2017); but the program which started in 2004 was cancelled in 2013 with concerns about the lack of control over employees (Streitfeld, 2020). In 2009, IBM has announced that 40% of their 386.000 employees were working remotely so that they could gain almost \$2 billion by selling office buildings, but in 2017 they called many employees back to premises in need of more innovation and collaboration (Goman, 2017; Streitfeld, 2020; Kessler, 2017; Simons, 2017). Many companies like Aetna, Bank of America, AT&T and Reddit have canceled or reduced their remote work policies around mid-2010s, such as former Yahoo CEO, Marissa Mayer (also much former Google spokeswoman) has canceled the remote work programs of Yahoo in 2013, by explaining via a company memo: "Some of the best decisions and insights come from hallway and cafeteria discussions, meeting new people and impromptu team meetings ..." (Streitfeld, 2020). In 2013, former Google CFO, Patrick Pichette has told that they keep the number of telecommuters at minimum, elaborating on the significance of impromptu meetings, innovation, employees' spending the time together, building a community, and the concerns on isolation of telecommuters (Grubb, 2013). In 2018, Amazon redeveloped and moved to a Seattle neighborhood (Garfield, 2018), and in 2017 Facebook announced plans for a comprehensive housing project in Silicon Valley for employees (Hartmans, 2017). However, surveys

demonstrate an increase in the number of telecommuters and the demand for it in US, most developed European countries and Turkey, such as Gallup's report on State of the American Workplace (2017), FlexJob's State of Telecommuting in 2017 report (Reynolds, 2017), research of Global Workplace Analytics (Lister, 2020), Deloitte Turkey's Future of Work report (2020a), report of Eurofound and the International Labour Office (2017). Accordingly, more than half of Millennials and Gen Zs who now dominate the global workforce in numbers approach positively to remote work conditions asked about in both pandemic and pre-pandemic global surveys (Deloitte, 2020b; 2017).

After 2000, increased technology adoption of organizations provided a suitable field to conduct more research on previously underdeveloped topics. General research on telework and related concepts (e.g.: homework, virtual work, remote work, mobile work, etc.) display some trends especially in last decade, such as: environmental pollution, communication, social capital, temporal and spatial separation between remote and physically present employees, collaboration, chance encounters, unplanned interactions, managing skills, telework's impact on organizational culture, dynamic online work environments for cross-synthesis of different cultures and values, work-life balance, boundaries, managerial rejection of telework (insufficient infrastructure, communication, decreasing work-efficiency), employee rejection of telework, performance, productivity (Robelski et al., 2019; Stich, 2020; Raghuram et al., 2019; Beauregard et al., 2019; Aten, 2020; Zomorrodian, 2017; McGill et al., 2015; Plavin-Masterman, 2015; Kingma, 2019; Cousins & Robey, 2015; Beevi & Menon, 2019; Macauley, 2018; van der Meulen, 2016; Waldorf, 2019; Gadecki et al., 2016; Basile & Beauregard, 2016; Gadecki et al., 2018; Numano et al., 2019; Yalina & Rozas, 2020; Wang, 2009; Lee & Ma, 2019; Dockery & Bawa, 2018).

As trends suggest, contemporary research focuses on social aspects in relation to spatial and temporal concerns. While the despatialization of social aspects and its impacts are highly problematized, generated frameworks towards a solution or enhancement are mostly interested in new approaches to managerial strategies, adaptation of organizational culture and seeking change in organizational social life to adapt into new digitalized life, rather than a re-spatialization with a holistic design

approach utilizing and adapting both physical and virtual space. Discourse on this research shows that online spaces are not theorized in detail, but space is rather tackled as a social construction and/or physical material (Wilhoit, 2016). However, it is not much of a surprise, considering that research concerning the relation between humans, organizations and physical office space is already a newly matured area which started to find its unified theoretical and empirical bases in 2010s.

The term telework was first coined in 1970s (Nilles et al., 1976) and similar terms like telecommuting involving use of ICTs were promoted by big companies (e.g. Yahoo) in 1980s (Messenger and Gschwind, 2016). However, legislation of such work condition was not established around the world yet. Although there have been some governmental initiations such as the Federal Flexiplace Project in the US in 1990s (U.S. Office of Personnel Management, 2020), proper definitions of alternative workplaces and telework conditions have started to be acknowledged after 2000 (i.e. Public Buildings, Property, and Works, 2002; European Framework Agreement on Telework, 2002). In Türkiye, there was no legal regulation until the amendment of Labour Law No.4857 in 2016 (İş Kanunu ile Türkiye İş Kurumu Kanununda Değişiklik Yapılmasına Dair Kanun, 2016) which had no further development since then (Çoker, 2020). This amendment on the law's article 14 covers main issues in terms of remote working, such as wage, extra fees for food and travel expenses, work hours, overtime and more. Turkish Labor Law Legislation makes the definition of workplace, but this definition has no clarity for the case of remote working. This brings ambiguity especially in terms of Labour Law No.6331 Occupational Health and Safety Law (İş Sağlığı ve Güvenliği Kanunu, 2012) where employers' responsibilities are also acknowledged based on the workplace definition.

As we see from the examples of aforementioned big companies, managerial views of these organizations promote employees' being physically together in the same place, socializing and spending the time together, in pursuit of mostly innovation and coordination and sometimes more control. Especially what successful companies like Google and Facebook have been providing for their employees in terms of facilities and spaces for creating a community, collaboration, socialization and thus a holistic employee experience in the physical premises resonates strongly with this manner.

Although employee experience (EX) is not a new term, recently it gathers more attention from both researchers and business world (Plaskoff, 2017). EX is highly issued in Türkiye too, especially during the COVID-19 pandemic (e.g.: XCO'20 Online, 2020). It is argued that organizations should provide “employees the workspaces they want, the tools they need, and a culture they can celebrate” to benefit from the worldwide talent market in major presence of new generations with new priorities (Morgan, 2017). In their recent report, HR consultancy firm KPMG International (2019) focuses on the EX design pointing the digital experience (technology and tools), the social experience (collaboration and community), and the environmental experience (as in physical workplace). In other words, it focuses on how people work, communicate and collaborate in a mixed space of physical and digital.

There have been two prominent reasons behind why companies have stepped back from the telework in the last decade. One was the inefficacy of technology and its adoption. We still do not have the robust technology to “plug in” a fully immersive and realistic virtual reality simulation of an “idealistic” workplace where immense and uninterrupted collaboration is possible. However, recent developments in and widespread use of ICTs and especially VR technology are very promising in terms of working, socializing, collaborating and being together in an immersive manner, although their affordances and use should be continuously tested with every new advancement. On the other hand, what mentioned organizations expect by preliminarily requesting “being together in the same place” for more intuitive collaboration, innovation, the sense of community and sometimes the control, involves not only use of functionally efficient ICT tools during the very act of doing a task or a planned meeting, but also an immersive and uninterrupted social presence of employees during the almost entire work hours. Impromptu meetings, conversations in the hallway, in cafeteria or next to a water-cooler, spending even the break times with colleagues requires such presence of an employee as an active and effective state of mind immersed in the “workplace”. With an ideal composition of current ICTs, this might be achieved to some extent but at the expense of neglecting the work-life boundaries (Wajcman & Rose, 2011; Symon & Pritchard, 2015; Koslowski et al.,

2019). Whether it is caused by lack of knowledge, legal regulations and/or authority, the incapability of organizational decision-makers to claim and operate on employee's personal and domestic space and time is the other prominent reason of the step back mentioned above.

2.5.3 Focused Research Areas in the Pandemic and Pre-pandemic Periods

2.5.3.1 Architecture and Built Environment

Firstly, in order to have insight on what was already being studied prominently before the pandemic and what has changed with it, keywords of all types of published architectural work which are available in Web of Science database were investigated. These included works published in 2018, 2019 and 2020 which is the year of pandemic. Tools embedded within the Web of Science website and the VOSviewer software tool were utilized to analyze bibliometric data such as keywords provided by authors, their counts and co-occurrence with each other among all pieces of published work. Accordingly, among a wide range of topics, sustainability, public space and cultural heritage have been the most attended ones in each of 2018, 2019 and 2020 with varying weights. For example, public space and sustainability topics have seen an increase in 2020. Additionally, topics like housing, climate change, identity, machine learning, ai and computational design have been highly attended topics during these three years. Furthermore, virtual reality and space syntax topics have seen an increase in 2019 and 2020; social and cultural sustainability, sustainable development and infrastructure topics have seen an increase in 2020.

During the pandemic, how architecture and built environment in various contexts and scales will or should change has been a popular theme of discussion not only in research but in wide discourse of architecture. A comprehensive example is Gillen et al.'s (2021) "RETHINK Design Guide: Architecture for a post-pandemic world" which explores short- and longer-term impacts possible developments through articles written by architects and designers with expertise in different building typologies. Chapters of the book provide valuable insights to consider and discuss further in

particular topics of workplace, housing, retail and hospitality, civic and cultural environments, healthcare, universities and colleges, schools, infrastructure and placemaking. Over all typologies, most emphasized common key aspects are sustainability (economic, social and environmental), adaptability and flexibility, access to nature, fresh air and daylight, human centered and inclusive design, experience and digitalization. Elaborating on how these aspects are considered for future development of the built environment provides some intersections as well as some potentially paradoxical conceptions in terms of contemporary conjuncture. For example, designing an experience for the user intersects with human centered design. Designing with technology to allow users to control their experience within the built environment intersects with inclusive design, and both could coincide within social sustainability as a driving consideration. Although adaptability and flexibility could also intersect with inclusive design aspect, they are more emphasized in context of economic sustainability.

Eventually, sustainability constitutes a potential overarching issue. On the other hand, discourse on requirement of more flexible and larger spaces, and expectation of newly emerged built environment like co-working spaces implicates lots of changes in cityscape and city life. How this change will be planned and executed is very critical. To some extents, flexible and adaptable cityscape, infrastructure and buildings provided with movable and customizable walls, lighting, heating, ventilation and air conditioning elements to be able to adapt to a different use-case or typology can be paradoxical with economic sustainability and can create distress in terms of sustaining the identity of spaces and thus for social sustainability. Therefore, when environmental, economic and social sustainability are considered in joint coordination, it is crucial to not being limited by the idea of creating flexible and adaptable versions of traditional physical architectural elements. Through rigorous research, new ICTs might bring much more flexibility and adaptability to the designed, practiced and experienced space, in a much more sustainable manner.

2.5.3.2 Remote Work

In order to have insight on what was already being studied prominently before the pandemic and what has changed with it, keywords of all types of published management, psychology and sociology studies about remote work and/or telework which are available in Scopus database were investigated. These included works published in 2017, 2019 and 2021 which is a year of pandemic. Tools embedded within the Scopus website and the VOSviewer software tool were utilized to analyze bibliometric data such as keywords provided by authors, their counts and co-occurrence with each other among all pieces of published work. Accordingly, work-life balance has been the most attended topic in this area, among topics like ICT, work from home, performance, job satisfaction, transportation, economics, sustainability, innovation, wellbeing and mental health. Although main topics stand still, 2021 displays additions around them such as public health, social media, workplace, virtual teams, leadership, human resource management. Furthermore, in last five years, work-life balance topic has been always studied as a main branch of research in relation to work from home, performance, job satisfaction, gender and flexibility. 2021 shows an increase in psychology studies especially in relation to work-life balance. Additionally in 2021, work from home topic has gathered much more attention and it has been studied in relation to more branched topics than work-life balance had before. These branches include human resource management, productivity, wellbeing, stress and mental health etc.

2.5.3.3 Today and Tomorrow of Remote Work and Occupations

Insights have been gathered about trends in remote work and occupations in last years and global workforce's and employers' attitude and perceptions of these changes. For this purpose, in addition to scientific research, global surveys and analysis made by commercial and governmental institutions have been explored. These insights are valuable in terms of comprehending and identifying the characteristics of population which can be potentially most affected by conditions related to telework.

Research suggests various criteria that affect individual's positive or negative experience of telework. For example, employees and leaders, or men and women can have different experiences in same organizations or same job (Donnelly and Proctor-Thomson, 2015). This is related to perceived and/or compelled responsibilities and identities issuing different socio-spatial activities at home and organization, so it might also involve cultural conditions as well as social structure at home and organization. Therefore, any future study should gather not only basic demographics but also at least some information on how these criteria interact within particular contexts that individuals live in. For instance, a study requires not only gender and criteria of having children but also information about the weight of responsibility of children between spouses, or at least consider general cultural differences about such conditions.

In terms of being able to work from home and enhancement of working conditions, individuals' income and education level also show some differences. For example, according to Pew Research Center's surveys of Americans during the pandemic (van Kessel et al., 2021), 21% of college-educated workers reported positive changes while only 8% of workers with high school diploma or less reported in same direction. Workers with higher income were also more likely to mention positive change. McKinsey Global Institute's (MGI) analysis (Lund et al., 2020a) also supports that "potential for remote work is highly concentrated among highly skilled, highly educated workers in a handful of industries, occupations, and geographies." They utilize the MGI's workforce model based on the Occupational Information Network (O*NET) to analyze occupations and their respective activities. O*NET is a program sponsored by the US Department of Labor to improve our understanding of the nature of work and the workforce. This database contains hundreds of standardized and occupation-specific descriptors on almost 1000 occupations. Accordingly, Figure 2.4 displays remote work availability of occupations with theoretical maximum potential and effective potential (without productivity loss).

According to last McKinsey Global Business Executive Survey (Lund et al., 2020b) involving 800 participants, business executives say that: Digitization of employee collaboration, Automation/AI, Digitization of customer channels has increased since the pandemic began especially in finance and IT sectors. As a result of the pandemic,

they expect to hire more people for roles of health and safety in all sectors. Digital learning and agile ways of working; Technology and automation are also expected, but these are much higher in finance and IT sectors.

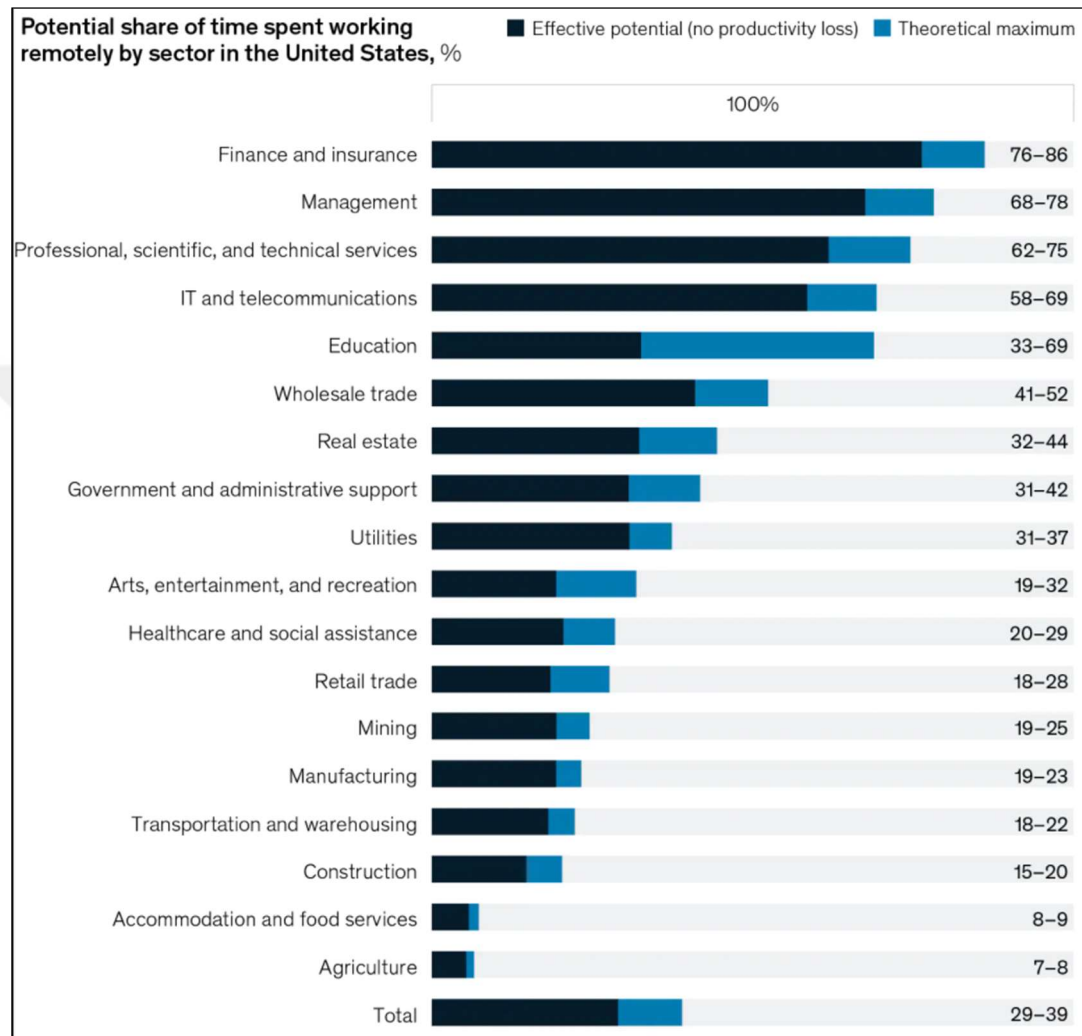


Figure 2.4 Remote work potential by sectors in the US, (Lund et al., 2020a)

Another work on investigating occupations' eligibility to telework is the study of Dingel and Neiman (2020) which is especially important because of their methodological contribution. Accordingly, they construct their work-from-home measure using surveys from the Occupational Information Network (O*NET). Then, they merge their classification with occupational employment data for many countries

provided by the International Labour Organization (ILO) to reveal a positive relationship between the share of jobs that can be done at home and a country's level of economic development. They classify the feasibility of working at home for all occupations using the responses to two surveys included in release 24.2 of the database administered by O*NET. The first survey is called the Work Context Questionnaire and includes questions aiming to capture the “physical and social factors that influence the nature of work” such as interpersonal relationships, physical work conditions, and structural job characteristics. The second survey is called the Generalized Work Activities Questionnaire and includes questions aiming to capture the “general types of job behaviors occurring on multiple jobs” such as the input of information, interaction with others, mental processes, and work output. The median occupation had 26 respondents for each work context question and 25 respondents for each generalized work activities question. Figures 2.5 and 2.6 show some relevant results of this study.

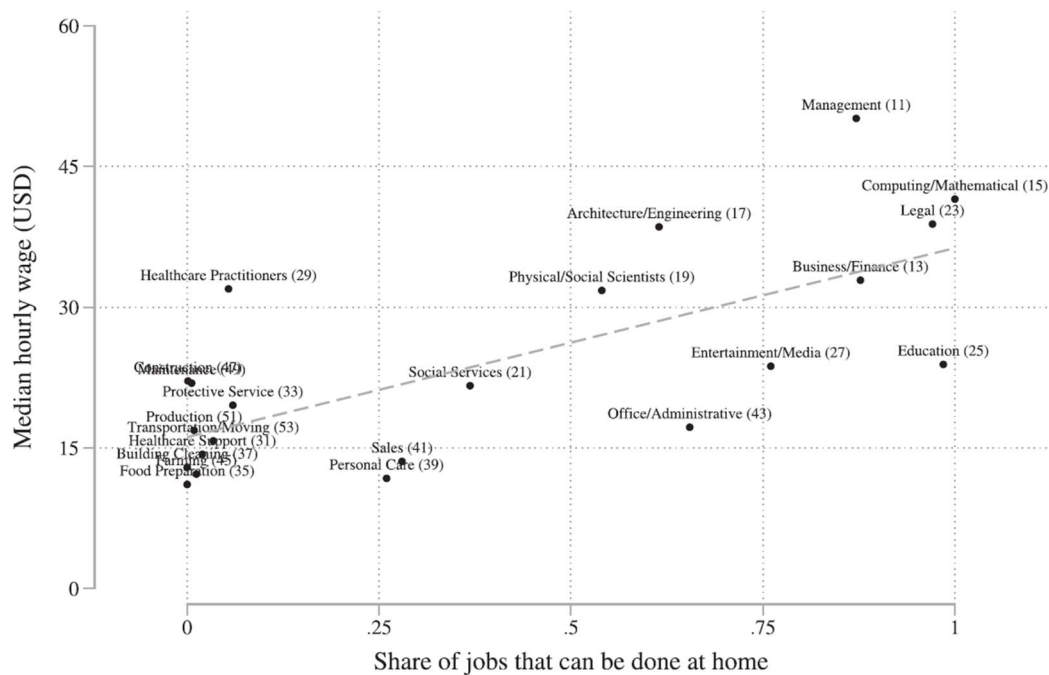


Figure 2.5 Median hourly wage and share of jobs that can be done at home for each 2-digit coded standard occupational classification (SOC) major group. (Dingel and Neiman, 2020)

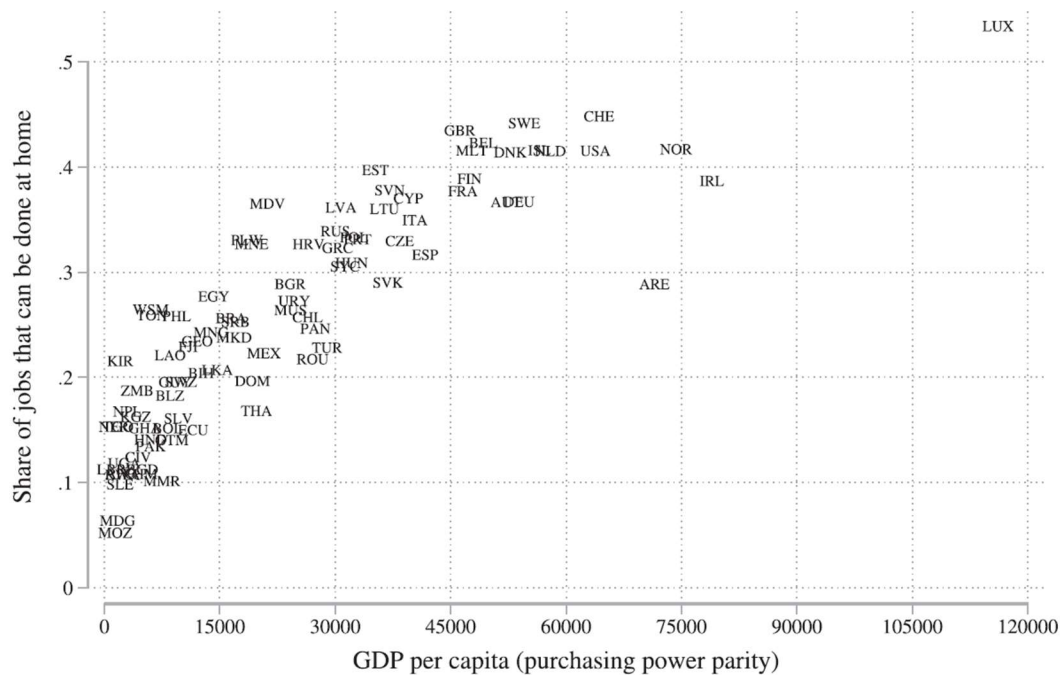


Figure 2.6 Cross-country variation in share of jobs that can be done at home and GDP per capita for 86 economies (Dingel and Neiman, 2020).

Occupations' employment potential or in other words the risk of being obsolete in future is another important aspect to be considered for identifying the focus population of the author's projected field study. In relation to that, automation and/or computerization of jobs and its impact on labor market have been documented in the literature for few decades (Charles et al., 2013; Jaimovich and Siu, 2012). For example, Goos and Manning (2007) capture the essence of the current trend towards labor market polarization, with growing employment in high-income cognitive jobs and low-income manual occupations, accompanied by a hollowing-out of middle-income routine jobs. Considering the acceleration of technological adoption among companies around the world, emerging new jobs and skills and the decline on employment of some others has been a highly attended topic in the contemporary business discourse, especially after the pandemic (World Economic Forum, 2020).

A key study of Frey and Osborne (2017) analyzes distinguished occupations' susceptibility to computerization. Drawing upon recent progress in machine learning, they expand the premises about the tasks which computers are and will be suited to

accomplish. Then, they utilize this information with occupational task measures based on the data from O*NET. They use objective O*NET variables corresponding to the defined bottlenecks to computerization. More specifically, they are interested in variables describing the level of perception and manipulation, creativity, and social intelligence required to perform it. As reported in Table 2.2, they identify nine variables that describe these attributes. These variables were derived from the O*NET survey, where the respondents are given multiple scales, with “importance” and “level” as the predominant pair. Figure 2.7 shows distribution of US employment in jobs over the probability of computerization.

Table 2.2 Chosen variables to serve as indicators of bottlenecks to computerization (Frey and Osborne, 2017)

Computerisation bottleneck	O*NET variable	O*NET description
Perception and Manipulation	Finger dexterity	The ability to make precisely coordinated movements of the fingers of one or both hands to grasp, manipulate, or assemble very small objects.
	Manual dexterity	The ability to quickly move your hand, your hand together with your arm, or your two hands to grasp, manipulate, or assemble objects.
	Cramped work space, awkward positions	How often does this job require working in cramped work spaces that requires getting into awkward positions?
Creative intelligence	Originality	The ability to come up with unusual or clever ideas about a given topic or situation, or to develop creative ways to solve a problem.
	Fine arts	Knowledge of theory and techniques required to compose, produce, and perform works of music, dance, visual arts, drama, and sculpture.
Social intelligence	Social perceptiveness	Being aware of others' reactions and understanding why they react as they do.
	Negotiation	Bringing others together and trying to reconcile differences.
	Persuasion	Persuading others to change their minds and behaviour.
	Assisting and caring for others	Providing personal assistance, medical attention, emotional support, or other personal care to others such as coworkers, customers, or patients.

It is important to understand these aspects of occupations in global scale and also in case of Türkiye. In relation to that, a rich dataset (FoWiGS, 2021) has been published online this year by Future of Work in the Global South (FoWiGS) network. This initiative is funded by the International Development Research Center (IDRC), a

Canadian federal Crown corporation. It aims at understanding the implications of technological change on jobs, considering the specific contexts of developing countries and disadvantaged groups within these countries. Aiming to answer to “Which workers are hit the hardest by the pandemic?”, this dataset collects a set of variables related to health and economic risks around the world. Two variables are important in our case. First is the ability to telework for which they utilize the classification method developed by Dingel and Neiman (2020), and second is the probability of automation for which they utilize the classification method taken from Frey and Osborne (2017).

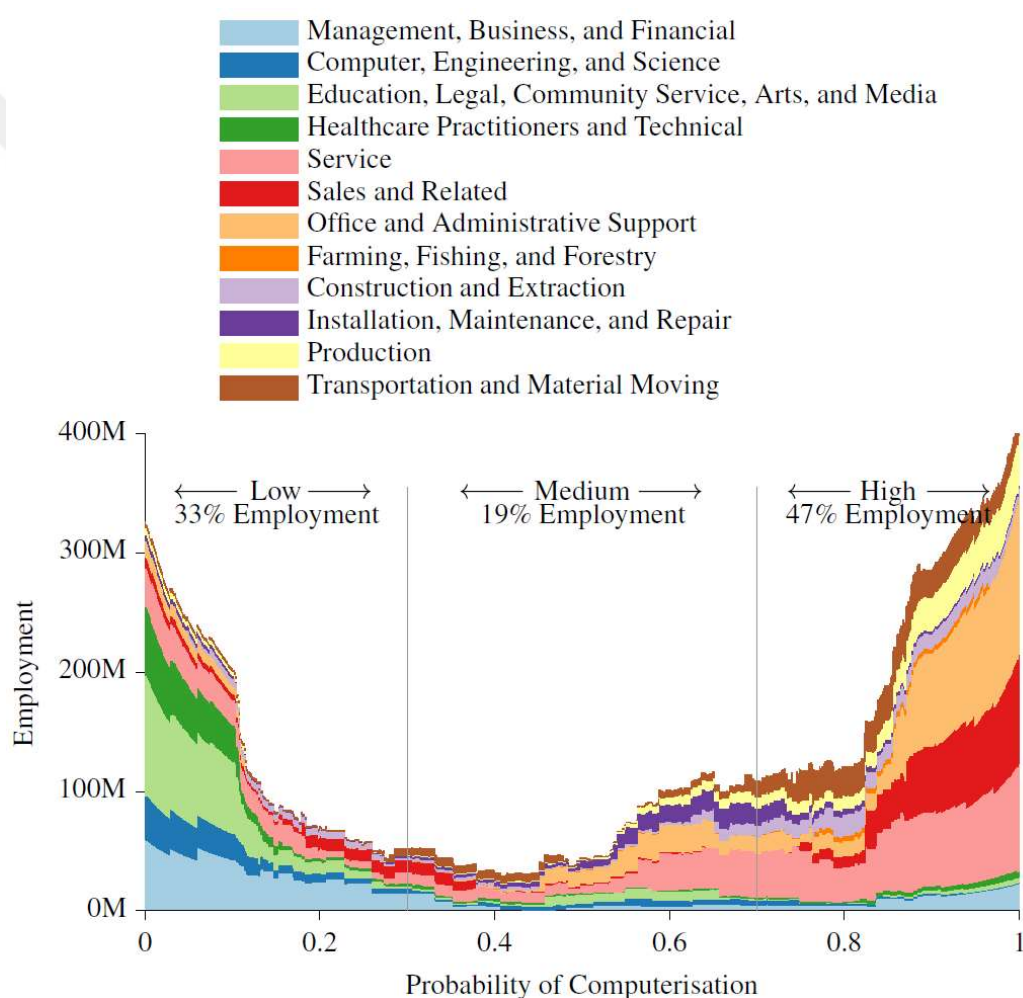


Figure 2.7 Employment affected by computerization. Note: The distribution of 2010 Bureau of Labor Statistics (BLS) occupational employment data over the probability of computerization, along with the share in low, medium and high probability categories. Note that

Using the World Bank's annual income classification of countries, the FoWiGS dataset also displays that low-income economies with low-skilled occupations have more probability of automation and lower ability to telework. High income economies with high-skilled occupations have lower probability of automation and higher ability to telework. For example, among high-income countries, Luxembourg stands at the top of the list with 56.0% ability to telework, while United Kingdom represents a more average value with 44.4%. Among upper-middle-income countries, Argentina stands at 30.2% while Türkiye stands at 23.7% ability to telework. On the other hand, Bangladesh with lower-middle-income has 11.3%, while low-income country Ethiopia has 6.3% representing one of the lowest rates of ability to telework. In terms of occupations' probability of automation, values are 44.7% for Luxembourg, 47.2% for UK, 61.0% for Argentina, 61.4% for Türkiye, 68.5 for Bangladesh and 74.4% for Ethiopia. These data suggest that Türkiye is at a global mid-range in terms of both the ability to telework and the probability of automation. The FoWiGS dataset also provides approximate employment shares by gender and number of workers in each occupation in each of participant countries. In their research, identification of occupations is based on 2-digit level classification of ISCO-08 (International Standard Classification of Occupations) codes of European Skills/Competences, qualifications and Occupations (ESCO) (International Labour Office, 2012).

Figure 2.8 prepared by the author is a collage of graphics provided in FoWiGS' webpage. It displays related information about some occupations in Türkiye. These are the occupations which have most ability to telework (higher than 70%) in case of Türkiye. 70% threshold was intuitively chosen by the author in order to get insight about which occupations are more eligible to conduct the projected field study on, considering the possible developments to occur in following years. The author has two reasonings behind this. First, particular occupations are more likely to continue or generate telework modalities in future. Second, particular human occupations are more likely to be partially or entirely obsolete in future because of automation, AI and machine learning.

Most Teleworkable Occupations in Turkey (2021)



Figure 2.8 Most teleworkable occupations in Turkey and their probability of automation. (Collaged by author, from graphics provided by FoWiGS, 2021)

2.5.4 Development of Theoretical Foundation of the Study

Recent studies (e.g.: Allen et al., 2015; Bloom et al., 2014; Gajendran, Harrison and Delaney-Klinger, 2015; Richardson & Kelliher, 2015) still supports the positive relation between telework and increased performance and productivity. However, ongoing research with numerous studies points at the negative impacts on individuals such as professional and social isolation (e.g.: Wilson and Greenhill, 2004; Maruyama and Tietze, 2012; Even, 2020), difficulties on managing work-life boundaries (Johnson et al., 2007, Basile & Beauregard, 2016; Felstead & Henseke, 2017; McDowall & Kinman, 2017; Koslowski et al., 2017; McCloskey, 2020), lower managerial support (Lapierre et al., 2015; Collins et al., 2016; Bentley et al., 2016), reduced visibility (Maruyama and Tietze, 2012; Richardson & Kelliher, 2015; Sewell and Taskin, 2015) and others which affect employees' experience of both organizational and domestic space.

Considering methods, perspectives and contexts applied in separate clusters of virtual work research, literature displays many areas lacking knowledge which can benefit from more accommodational approaches learning from all clusters. An important area of this kind is that how the interaction between workspace (both virtual and physical) affordances and organizational context affects team relations and employees' perceived role and work-home boundaries in situation of knowledge workers working from home. In relation to that, CMW cluster often utilize Gibson's (1977) theory of affordances concerning possible actions afforded or suggested by perceivable features of objects and environments. Telecommuting cluster often utilize boundary theory which is originally a cognitive theory about social classification (Zrubavel, 1991), and then adapted by organizational scholars to concern meanings assigned to work and home (Nippert-Eng, 1996), and transition from one role to another (Ashforth et al., 2000). Boundary objects and brokering concepts of Wenger (1998) also tackles a similar area but from a different perspective focusing on how some objects connect people and practices of separate spheres and how shared members of multiple communities bring cultural elements or norms of one community to another through negotiation and power relations over usage of such objects.

In terms of work-life balance in telework-from-home condition, a widespread phenomenon that employees experience in contemporary organizational context is the “liminality” (Ibarra & Obodaru 2016; Johnsen & Sørensen 2015). Coming from the limen (i.e. ‘treshold’ in Latin), the term had been used by anthropologist van Gennep (1960 [1909]) for a phase of community rituals where members’ complete transition from previous social status to another occurs. Accordingly, the emphasis of this phase is also augmented with use of physical separations and cultural elements. The term has been studied also in organizational context (Shortt, 2015; Concannon & Nordberg, 2018). It is argued that in modern organizations, a prolonged or even a permanent liminality which does not involve a clear transition is a common situation complicating work-life boundaries for individuals (Ibarra & Obodaru 2016), especially in conditions like “overagitated lifestyle of overworked professionals” (Johnsen & Sørensen 2015). Disappointment of incapability to escape from such condition may lead to a feeling like “schizophrenic aporia” (Czarniawska & Mazza, 2003) or “limbo” (Bamber et al. 2017). Bodily experiences and spatiality are crucial dimensions for liminality (Thomassen, 2014; Vesala & Tuomivaara, 2019).

When work-home boundaries are not predefined in the context of knowledge workers working from home for an organization via ICTs, predefined or preidentified or taken-for-granted spaces i.e. “home” and “body” eventually turn into a “boundary object”, an arena where inner relations of organizational community and domestic life encounter (Koslowski et al., 2019). Architectural technologies and ICTs mediate teleworkers’ experiences at home/workplace which may result in permanent liminality. Permanent liminality in this case can be conceptualized as a state of mind which feels like being neither totally an employee in the workplace nor e.g. a mother in the house, and/or which feels both simultaneously in anytime of a day. Presence and immersion concepts are very akin to such conceptualization and technological mediation of a state of mind. These two are major key terms in virtual reality literature. Majority of studies provide at least some measurement of presence which is commonly defined as a feeling or a psychological state of “being there”.

Historically, the concept of presence was first introduced by Marvin Minsky (1980) to describe the sense of being physically

“transported” to a remote place that is often reported by teleoperators. Successively, Sheridan (Sheridan, 1992) defined telepresence as “feeling like you are actually ‘there’ at the remote site of operation” and “virtual presence” as “feeling like you are present in the environment generated by the computer” (p. 120). More recently, the term telepresence has been used to refer to any medium-induced sense of presence, while reserving “presence” strictly for referring to the natural perception of an environment. (Triberti, Di Natale & Gaggioli, 2021)

When users feel “present” in a virtual environment, they react emotionally and bodily (at least to some extent), as if the virtual world exists physically. Accordingly, a group of methods measuring presence focus on measuring users’ behaviors like responses to a moving object or socially conditioned behaviors acted upon a related stimulus in a given VE. Original examples of these relatively more objective methods can be found in studies of Sheridan (1992), Slater et al. (1995), Thie and van Wijk (1998), Regenbrecht et al. (1998), Freeman et al. (2000). Another group of methods measuring presence focus on physiological measures such as: skin conductance response (SCR), galvanic skin response (GSR), electrodermal activity (EDA), electrocardiogram (EKG) (Dillon et al., 2000); skin temperature (Meehan et al., 2002); heart rate and electroencephalogram (EEG) (Guger et al., 2004; Slater et al., 2003; Slater et al., 2006); or fMRI technology (Baumgartner et al., 2008; Robillarda, 2010). However, most common method in all VR literature is the questionnaire. Some widely utilized original presence questionnaires are; Slater-Usch-Steed (SUS) questionnaire (Slater et al., 1995), Presence Questionnaire and Immersive Tendencies Questionnaire (Witmer & Singer, 1998), Reality Judgment and Presence Questionnaire (Baños et al., 2000), Swedish Viewer-User Presence (Larsson et al., 2001), ITC-Sense of Presence Inventory (Lessiter et al., 2001), Igroup Presence Questionnaire (Schubert et al., 2001), MEC-Spatial Presence Questionnaire (Vorderer et al., 2004), Temple Presence Inventory (Lombard et al., 2009), Virtual Experience Test (Chertoff et al., 2010); works of Bouchard et al. (2004) and Lombard et al. (2000;).

Copresence and social presence are other presence-related constructs which can be considered in scope of this study. Although copresence and social presence terms mostly overlap and are highly used as the same concept in literature (Bailenson et al., 2005), contemporary sources separate them (Skarbez et al., 2017; Biocca et al. 2001).

Accordingly, they can be defined as that copresence refers to the feeling of being together in the same space while social presence requires users' additional awareness or feeling as if their psychological state or behaviors are somehow affected by another social entity's interactions.

Immersion, on the other hand, is widely acknowledged as capabilities of a VR system. It can be exemplified as the size of the displayed field of view (in degrees of visual angle) to see more of the virtual environment surrounding us, and how much the headset covers rest of our visual field in a manner preventing us from seeing the real physical world in our peripheral field of vision. Another example of immersive capabilities is to track user's hand gestures and actualize the response of virtual environment and agents in real time. A prominent researcher in VR area, Slater (2003) suggests that immersion refers to the objective level of sensory fidelity a VR system provides. Such as:

- variety of sensory modalities the system can display (visual, auditory, etc.)
- how much the VR system (hardware and software) covers user's any given sensory modality (to surround user with virtual stimulus instead of real world)
- how realistic and responsive the system's interaction with user's actions and senses,
- how many sorts of interactions the system provides.

Slater (2009) suggests that there are two concepts which together constitute the presence. One is place illusion (PI), "the...illusion of being in a place in spite of the sure knowledge that you are not there"; and the other is plausibility illusion (Psi), "the illusion that what is apparently happening is really happening (even though you know for sure that it is not)". He also argues immersion as an enabler of place illusion. Accordingly, while presence in general involves aspects of subjective experience, immersion is an objective aspect in this concept.

"Starting from these early definitions, several theoretical accounts of presence have been developed over the years, which can be grouped into two main perspectives. The first conceptualization sees presence as an experience resulting from the interaction of a user with a given medium. According to this view, presence is a psychological state that is shaped, although not completely

determined by, the immersive properties of the medium (Slater & Usoh, 1993). The second perspective conceives presence as an embodied process, which is linked to the organization and control of action, so not necessarily related to technical properties of a medium: according to this view, the sense of “being there” is strictly related to the subject’s ability to successfully “act there” (Riva, Mantovani, Waterworth, & Waterworth, 2015; Zahorik & Jenison, 1998), in the space where he/she is situated - either “physical” or “virtual”. Thus, the more a virtual environment allows the user to successfully engage in an intended behavior, the more present he/she will feel. According to Riva and Waterworth (Riva & Waterworth, 2014; Waterworth & Riva, 2014), presence is not a property derived from a given technological medium, but a neuropsychological process that has a specific evolutionary function, that is, allowing to define the boundaries of action by means of the distinction between “internal” and “external” within the sensory flow. More specifically, according to this model, presence has three functions: (1) to permit the subject to position himself in a space—real, virtual, or social—through the distinction between “internal” and “external” and the definition of a boundary; (2) to check the efficacy of the subject’s actions through the comparison of intention and the result of the action; (3) to identify the Other and to attribute to him an ontological status—“the other similar to the self”—and allow interaction and communication through the understanding of the Other’s intentions.” (Triberti, Di Natale & Gaggioli, 2021)

The first and second aspects suggested by Riva and Waterworth align with Slater’s place illusion and plausibility illusion, while third aspect refers to copresence and social presence. These two conceptualizations of presence provide some valuable insights in terms of this thesis study. First of all, ones mentioned above and further works of Riva and Waterworth liberates the term presence and the discussion about this phenomenon from contextually limited conceptualizations and models of computer science; and opens it for a larger multidisciplinary and interdisciplinary research areas. Moreover, their first aspect of presence aligns with boundary studies on work-life balance (Nippert-Eng, 1996; Ashforth et al., 2000) and their antecedent, cognitive theory of social classification (Zerubavel, 1991). It also provides a common ground to accommodate these theories and different conceptualizations of space together.

Secondly, from the perspective of technological mediation -of an intended experience involving environment, interactions and social entities-, discussion about the impact of immersion on presence aligns with the discussion about architectural determinism. Do the capabilities of a VR system determine our feeling of place and further behaviors in the environment? Do features of a built environment determine our feeling of place and further behaviors in the environment? What is commonly lacking in these two questions is the concept of multistable character of technologies depending on use-context, or in other words “content pragmatism” of postphenomenology. A similar inquiry exists in VR literature to an extent providing questionnaires for measuring user's tendency to experience the cognitive state of presence (e.g.: Thomson, Goldiez & Le, 2009) and for measuring user's tendency to be immersed by a particular technology (e.g.: Jerome & Witmer, 2002; Zhang, Perkis & Arndt, 2017; Krassmann et al., 2020). However, such inquiries are limited to this particular literature and also limited in terms of issued technologies and context to facilitate an intended feeling of presence in a predetermined type of environment and experience.

Another related concept filling this gap in VR literature is “coherence” introduced by Skarbez (2016). Skarbez conceptualizes it as “the set of reasonable circumstances”, as reasonable in terms of a particular scenario, storytelling, environment and rules given in a virtual environment. In this manner, Figure 2.9 displays Skarbez et al.'s (2017) model of presence. Skarbez (2016) suggests coherence as an objective aspect. To an extent, it can be issued as objective, given that it is also limited in terms of issued technologies and context to facilitate an intended feeling of presence in a predetermined type of environment constructed for only a predetermined type of experience. As it is displayed in Figure 2.9, Skarbez et al. (2017) connects “coherence” to the model through mediation of functions affected by individual differences. Therefore, coherence or incoherence of reasonable circumstances in a certain environment is grasped, alienated or ignored on different levels by different individuals during their own experience. It can change according to culture, demographics and past experiences of the individual.

Concepts of immersion, copresence, social presence, coherence and the contextual multistability of these technologies can fill the gap in empirical inquiry of

human-space relationship and of presence as a more comprehensive concept outgrowing the VR context. Furthermore, models of presence specialized for VR can give insights for hypothesizing models of presence involving technological mediation of both digital and architectural technologies.

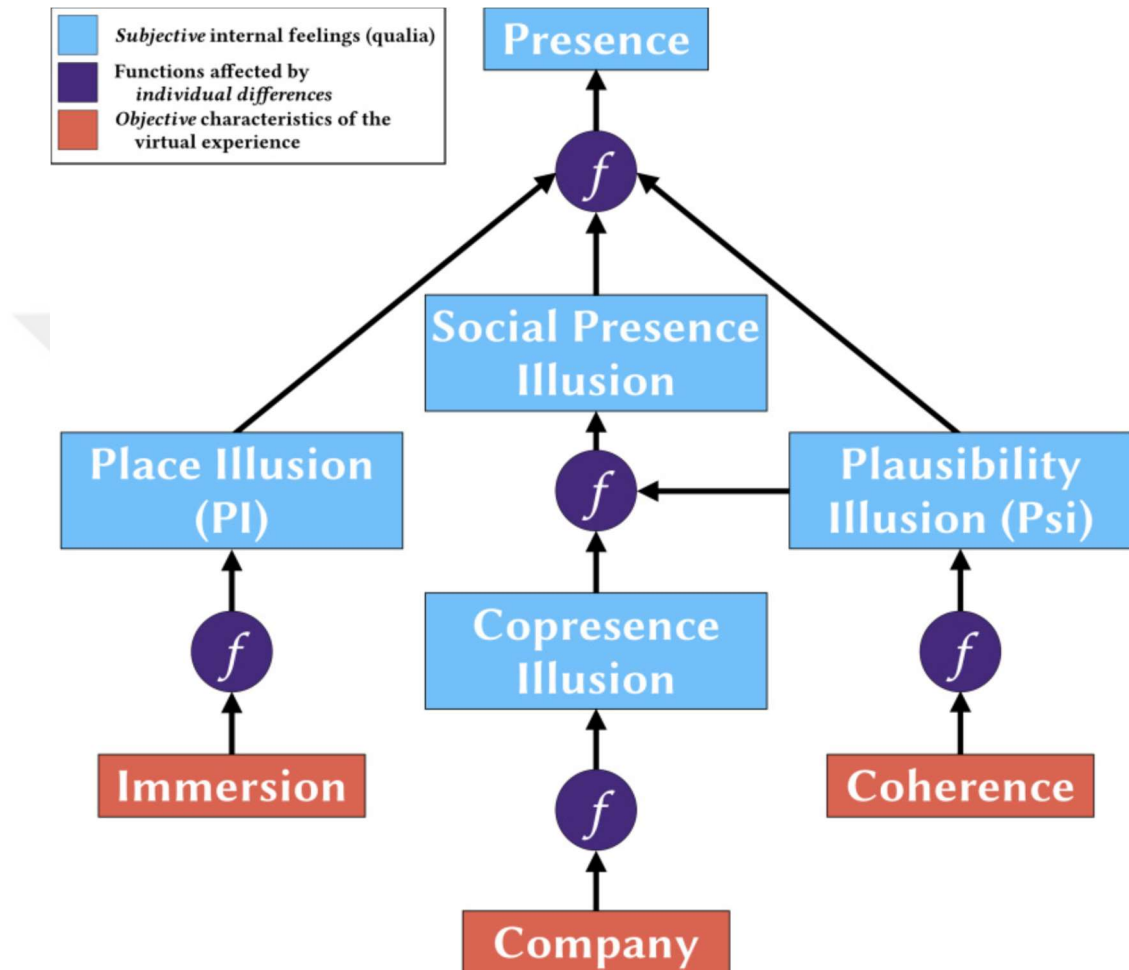


Figure 2.9. Model of presence and related concepts. (Skarbez, Brooks & Whitton, 2017)

2.5.5 Prominent Measurement Methods

After the highly controversial state of theories and methodologies in the issued interdisciplinary areas in the past, especially studies in the last few decades display an increasing effort to measure many criteria provided before and to develop models to better inquire the possibility of some causality between various issues. Considering

mainly intersections of architecture, psychology, virtual reality and organizational studies, and further branched intersections with other contributing disciplines, this part of the paper presents most common methods to measure and explore prominent criteria in the regarding literature. Although highly qualitative methods are still used and utilized for creating a quantifiable database and/or new scales, here the endeavor of quantitative measurement will be focused. In this sense, some examples of prominent criteria measured in contemporary research are presence, copresence, social presence, organizational identification, organizational culture, flow, stress level, illusion of embodiment, experience of architectural space, cognitive map, etc.

It can be said that most common criteria issued and attempted to measure in VR-involved literature is the presence. Commonly, it is defined as a feeling or a psychological state of “being there” in a virtual environment. The presence term has been defined and measured in various ways with involvement of related constructs like immersion, coherence, copresence, social presence, self-presence, spatial presence, embodiment, agency, flow, suspension of disbelief and comprehensive models of presence (e.g. Fig). As a statistical method, factor analysis is commonly utilized in construction of presence models (Lessiter et al., 2001; Schubert et al., 2001; Witmer et al., 2005). Probably the most accepted and clarifying framework in last decade is Slater’s (2009). He suggests that there are two concepts which together constitute the presence. One is place illusion (PI), “the...illusion of being in a place in spite of the sure knowledge that you are not there”; and the other is plausibility illusion (Psi), “the illusion that what is apparently happening is really happening (even though you know for sure that it is not)” (Ibid.). He also argues immersion as an enabler of PI, given that immersion is widely acknowledged as capabilities of a system, like capability to track user’s hand gestures and actualize the response of virtual environment and agents in real time. While PI and presence in general involve aspects of subjective experience, immersion is an objective aspect in this concept. In a similar manner, Skarbez (2016) suggests coherence as an objective aspect in Psi. Accordingly, the coherence can be conceptualized as “the set of reasonable circumstances”, as reasonable in terms of a particular scenario given in a VE instead of real life (Ibid.).

Methods used for measuring the presence can be roughly distinguished into three types. One group of methods is based on the self-reports of participants/users. Most common method in this group and also in all VR literature is the questionnaire. Some widely utilized original presence questionnaires are; Slater-Usch-Steed (SUS) questionnaire (Slater et al., 1995), Presence Questionnaire and Immersive Tendencies Questionnaire (Witmer & Singer, 1998), Reality Judgment and Presence Questionnaire (Baños et al., 2000), Swedish Viewer-User Presence (Larsson et al., 2001), ITC-Sense of Presence Inventory (Lessiter et al., 2001), Igroup Presence Questionnaire (Schubert et al., 2001), MEC-Spatial Presence Questionnaire (Vorderer et al., 2004), Temple Presence Inventory (Lombard et al., 2009), Virtual Experience Test (Chertoff et al., 2010); works of Bouchard et al. (2004) and Lombard et al. (2000;). Additionally, there are other self-report measurement methods, such as ones utilizing: user's comparison of presence felt during participation of two sequential VEs (Welch et al., 1996); handheld sliders continuously used by participants to report their level of presence felt during the whole process (Freeman et al., 1999); reports of breaks during the feeling of presence (Slater & Steed, 2000; Garau et al., 2008). Another group of methods measuring presence focus on measuring users' behaviors like responses to a moving object or socially conditioned behaviors acted upon a related stimulus in a given VE. Original examples of these relatively more objective methods can be found in studies of Sheridan (1992), Slater et al. (1995), Thie and van Wijk (1998), Regenbrecht et al. (1998), Freeman et al. (2000). Third group of methods measuring presence focus on physiological measures such as; skin conductance response (SCR), galvanic skin response (GSR), electrodermal activity (EDA), electrocardiogram (EKG) (Dillon et al., 2000); skin temperature (Meehan et al., 2002); heart rate and electroencephalogram (EEG) (Guger et al., 2004; Slater et al., 2003; Slater et al., 2006); or fMRI technology (Baumgartner et al., 2008; Robillarda, 2010). In the last decade, presence-related research displays that methods mentioned above are used, adapted and combined with each other by scholars for different context of studies (Soler-Domínguez et al., 2020; Skarbez et al., 2017; Rosakranse and Oh, 2014).

Copresence and social presence are other presence-related constructs which can be considered in scope of this study. These terms are issued in research studying a wide-range from people with disabilities (Stendal et al., 2013) or disorders (Di Mascio et al., 2019) who have difficulties in social interaction, to impacts on remote collaborative work conditions (Ruiller et al., 2018; Oprean et al., 2018). Although copresence and social presence terms mostly overlap and are highly used as the same concept in literature (Bailenson et al., 2005), contemporary sources separate them (Skarbez et al., 2017; Biocca et al. 2001). Accordingly, they can be defined as that copresence refers to the feeling of being together in the same space while social presence requires users' additional awareness or feeling as if their psychological state or behaviors are somehow affected by another user's interaction. Literature displays various methods of measurement in terms of these concepts. Some contemporary examples are interviews and thematic content analysis to measure perceived proximity (Ruiller et al., 2018); qualitative analysis of interview and focus group studies (Olasina, 2014); behavioral measures like users' minimum distance to others (Zibrek and McDonnell, 2019; Lee et al., 2018). Most common methods are questionnaires, however there is a large variety among existent questionnaires because of case-specific items employed in studies (Oh et al., 2018). On the other hand, there are few specific questionnaires (Bailenson et al., 2003; Slater et al., 2000) which are acknowledged and utilized by other studies in the last decade (Oprean et al., 2018; Zibrek and McDonnell, 2019; Podkosova and Kaufmann, 2018; Jo, Kim and Kim, 2017; Kim, Bruder and Welch, 2018).

Organizational Identification (OI) is another important concept in organizational studies in general, but particularly in terms of remote working conditions in organizations. OI is constructed upon Social Identity Theory (SIT) (Ashforth and Mael, 1989; Tajfel and Turner, 1985) as its application on organizational conditions. Together with Self-categorization Theory (Hogg and Terry, 2000) and the group engagement model (Tyler and Blader, 2003), these theories conceptualize social identification which is basically an individual's redefining the self in terms of the individual's social environment. Especially on remote working conditions, OI is studied (Scott, 2017) with its impact on various concepts ranging from workers'

performance (Golden, Veiga and Dino, 2008) to perceived respect (Bartel et al., 2012) considering the physical isolation of remote workers. Majority of studies measuring OI utilize the questionnaire and scale developed by Mael and Ashforth (1992), or other adaptations (Yang, Nguyen and Xiong, 2017; Bergami and Bagozzi, 2000; Manuti and Bosco, 2012; Teresi et al., 2019). There are many models for OI (e.g.: Dutton et al., 1994; Ashforth and Schinoff 2016; Sillince and Golant, 2018). Recently, there is also further emphasis on: analyzing the dynamism and long process of identification instead of situational or short-term analyses (Bednar et al., 2019); analyzing various aspects like discursive together with dramaturgical, socio-cognitive and symbolic (Brown, 2017); and over-identification's negative impacts on both individuals and organizations (Conroy et al., 2017).

Another important concept for this study is organizational culture which is also studied with OI in some cases (Kpakol et al., 2016). Although its definition varies in terms of disciplinary approaches, studies (Schneider et al., 2013; Giorgi et al., 2015) show that prominent aspects involve shared values and meanings (Schein, 1999), identification (Levi-Strauss, 1979), impacts on employers' perspective (Rao and Giorgi, 2006) and further on behavior (Lamont and Thevenot, 2000) and sense-making (Hsu and Hannan, 2005). In this area, qualitative studies mostly utilize ethnography, interview and case study methods while quantitative studies mostly utilize survey method (Reader et al., 2020). In last decades, scholars have been developing and adapting some prominent surveys like O'Reilly et al.'s (1991) Organizational Culture Profile, Cooke and Szumal's (1993) Organizational Culture Inventory, Cameron and Quinn's (1999) Competing Values Framework, and Denison et al.'s (2014) Organizational Culture Survey in order to create reliable and generally usable methods for measuring organizational culture. Recently, organizational culture researchers started to utilize new technological and scientific developments on data management and analysis (Tonidantel et al., 2018), focusing particular types of data gathered from institutional policies (Di Giuli and Kostovetsky, 2014) or social media activities (Srivastava et al., 2017).

Flow is another concept issued in organizational studies, and also issued theoretically in some VR studies in relation with presence (Skarbez et al., 2017). Flow theory

focuses on individual's various aspects of motivation and engagement with a task (Csikszentmihalyi, 1982). Accordingly, an individual who is in the flow state "is immersed in an activity without reflective self-consciousness but with deep sense of control" (Engeser and Schiepe-Tiska, 2012, p. 1). For measuring flow, some prominent methods still used in last decades are: Larson and Csikszentmihalyi's (1983) Experience-Sampling Method which involves a questionnaire filled by individual during the activity; and methods involving post-activity questionnaires like Flow State Scale (Jackson and Marsh, 1996), Dispositional Flow Scale (Jackson et al., 2008), Flow Short Scale (Engeser and Rheinberg, 2008). Additionally, other constructs like anxiety or boredom are also measured as they are considered against the flow (Engeser and Schiepe-Tiska, 2012). Study of de Moura Jr and Porto Bellini (2019a) suggests that these methods and their adaptations are most prominent in research of flow in work context too. Recently, social flow at work was also studied (Ibid.) such as de Moura Jr and Porto Bellini's (2019b) study introducing new concepts like team vibration with its designated questionnaire.

In terms of the research on use of VR technology in workplace, stress is a widely issued concept and measurement. VR-mediated biophilic interventions such as recreational use of nature-themed virtual environments in the physical workplace is a rising research topic consistent with increased affordability of VR devices in last decade. For measuring stress during such VR experience, majority of studies utilize objective physiological measures, such as; count of breathing, heart rate, blood pressure, skin conductance, salivary alpha-amylase (Naylor et al., 2020; Yin et al., 2019; Huang et al., 2020; Zhu et al., 2019; Tinga et al., 2019; Wang et al., 2019); and additional measures of body responses like eye movement (Zou and Ergan, 2019).

In terms of social VR experiences in general, the illusion of embodiment -user's psychological state of embracing the virtual avatar as if it is user's real body- was an active research area in the last decade (Gonzalez-Franco and Peck, 2018). This is not surprising, considering research demonstrating that there is strong relation between embodiment and change of user's attitudes in VE (Yee and Bailenson, 2007; Yee et al., 2009; Kiltani et al., 2013; Hershfield et al., 2011; Osimo et al., 2015). Most common methods of measuring embodiment are questionnaires, heart-rate,

skin-conductance and electroencephalogram (EEG) (Bergström et al., 2016; Zibrek and McDonnell, 2019); and studies (González-Franco et al., 2014; Padrao et al., 2016) support that subjective and objective measurements of embodiment correlate in most cases.

Additionally, architectural spaces, particularly their geometrical configuration and its impact on humans' emotions and cognitive abilities are also rising research areas in the last decade, consistent with increased collaborations among related disciplines. For example, Ergan et al. (2019) use aforementioned physiological measures utilizing electroencephalogram, galvanic skin response, heart rate variability (via photoplethysmogram) and use VR as a research tool for exploring emotions and stress levels of individuals while they are moving through architectural space and performing various tasks. As another example, Bellmund et al. (2019) utilize measurements gathered from a group of tasks of object-position memorization, distance-estimation and time-estimation to explore how cognitive maps and human positional memory is affected between two separate environments with trapezoid and square floor plans. Concerns related to geometrical configuration are not new, as it was mentioned before in terms of space syntax theory. Turner et al.'s (2001) Visibility Graph Analysis (VGA) based on the isovists (Benedikt, 1979) is still a central method in space syntax research. Aside from the related discussion formerly took place in this paper, for instance, Koutsolampros et al. (2019) compares VGAs of a number of physical workplaces with the data gathered from periodically-taken snapshots to investigate predictability of movement and interaction of inhabitants.

Beyond all methods and their capabilities mentioned above, VR technology provides a great research tool in terms of social psychological studies. In this manner, it has two major roles which are getting more reliable and resourceful with recent advancements. One is the capability it provides to control almost anything in the experiment environment, from AI controlled agents to both moving and static qualities of the environment. Second is that most traditional techniques to measure behaviors are easier to employ in VR settings, in terms of both recording and coding. These include continuous and detailed tracking of any limb, eye-movement, orientation, position, interpersonal distance to understand social behaviors (Yaremych and Persky, 2019).

CHAPTER 3

METHOD OF INQUIRY

3.1 Hypothesis and Research Questions

This thesis conceptualizes both virtual and traditional architectural spatial features as technologies with spatial capabilities and limitations within their issued context and conditions, and which can constitute immersive qualities to be involved in subjective experiences of presence in any particular lifeworld such as work life or home life.

This thesis hypothesizes that: “In the context of organizational teleworking from home, employees’ work-home balance is affected by spatial immersion and liminality.” It’s research questions are: In the context of organizational teleworking from home,

1. What is it like for employees to experience teleworking-from-home under different personal, interpersonal, temporal, spatial, demographic and background (i.e.: past experiences) conditions?
2. What is it like for employees to experience the phenomena of spatial immersion and liminality in the newly emerged space during work and non-work hours? And which qualities of the converted space affect this experience?
3. What is the relation between spatial immersion, liminality and the work/home balance?

3.2 Review and Synthesis of Methods

This thesis involves two phases of field study: interview and survey. For the interview (first) phase, main purpose is to understand the teleworking-from-home (TWH) experience of individuals and how they experience and feel about spatial immersion

and liminality phenomena. To be able to answer the research questions these interviews should be very comprehensive and deeply detailed in terms of personal, interpersonal, temporal, spatial, demographic and background aspects, intersecting aspects (e.g. spatial background), and further participant's habits, perceptions, preferences and emotions about particular aspects. Another reason for such comprehensive and detailed manner is that the insights gathered from the interview phase provides a knowledge base for preparing questionnaire items of the survey (second) phase. Statistical analyses of the survey data will provide further quantitative results about the issues investigated in this thesis.

For the construction and analyses of interviews, mainly three methods adopted from the related literature. First method is the interpretative phenomenological analysis (IPA) which has an idiographic focus, which means that instead of producing generalization findings, it aims to offer insights into how a given person makes sense of a given situation in a given context. An interview study to be conducted with this method should prioritize rich and comprehensive qualitative data about participants' experiences. Second method is the variational cross-examination (Rosenberger, 2020) to investigate multistabilities and dominant stabilities of technologies (furniture, electronic devices, digital applications, architectural elements etc.) from the perspective of individual participants. This method suggests three categories to gather detailed information about these stabilities. First category is the "compartments and habits" focusing on individuals' relational strategies, way of understanding and connotations about the items. Second category is "material tailoring" focusing on material modifications that individuals made to those items to better follow the social script of the context where the item and the individual together are associated in. Third category is the "networks and co-shapings" focusing on the context that items and individual are associated with. There are many theoretical frameworks to draw out such associations. A prominent and widely used one is the Actor-Network Theory (Latour, 2007) which premises the insistence on the capacity of nonhumans to act or participate in systems or networks or both. This brings us to the third method for the interview phase, which is the actor-network diagrams to visually represent and to

better familiarize and understand particular actor-networks of individuals in the issued context of their work and home life.

3.3 First Phase of Field Study: Interviews

3.3.1 Participants

Interviews were conducted via voluntary participation of 9 adults who are teleworking (hybrid or full-time) from home as a member of an organization for the last 2 months (at least) in Türkiye. Snowballing technique was utilized to reach eligible individuals. The author tended to have variety of factors in the participant pool, such as participants' demographics, job, organization (size and industry type), living conditions, marital status, children count, and so on, but most importantly type of workspace at home (i.e. separate work room or multipurpose room).

3.3.2 Data collection

Interviews were audio-recorded after verbal and inscribed permission of participants. Then records were transcribed by the author. For detailed and comprehensive data collection and analysis, participants were asked to take photographs of their usual work environment at home in its natural state (as much as possible) while they are working at home, any time of their choice; and to send them to the author.

3.3.3 Procedures

This interview study aims to gather information about participants' experiences in their own words with its most natural form. Therefore, it is crucial to provide an environment where participants can sincerely and comfortably elaborate on their personal experiences, feelings and opinions. Hence, the interviewer (the author) needs to initiate a respectful, peaceful and natural dialogue with the participants as if they are having a friendly conversation instead of an aggressive or a highly formal interview

format. Firstly, interviewer makes the first contact via phone call with the volunteer to introduce himself and to give more information about the procedures and what this study is about in summary. Secondly, interviewer meets with the participant in participant's home at a time of participant's choice. Interview is conducted preferably in participant's usual work environment at home, so that participant can visualize and remember easier while responding questions. When there are transportation problems, interview is conducted via video call. In order to keep participant comfortable and engaged, questions should not follow a strict order but take place according to the nature of the conversation as much as possible. Additionally, although there is a prepared list of open-ended questions, interview should be open-ended too and involve new additional questions based on the gathered information during the interview. Interview questions are presented in Appendix A of this thesis.

3.3.4 Analysis Method

Transcripts of interviews and photographs were investigated. Relevant parts of conversations in transcripts were categorized for easier comparative analysis (e.g. parts of conversations indicating spatial relationships, spatial strategies, habits, immersion, liminality, negative/positive feelings, job definition, etc.). Actor-network diagrams were prepared to understand and familiarize with the relations between participants and their environment in daily life. These diagrams mainly focus on the actors and networks involving the space and time designated for work. They also represent what is being done in other spaces during the designated work time, and what is being done during other times of day in the designated workspace and adjacent environment. Then, all data of 9 participants were scrutinized in an iterative and comparative manner so that the researcher can familiarize himself with all details, gather insights and further make interpretative projections to investigate through a survey study.

Interviews displayed detailed information about various factors, preferences, perceptions, opinions, habits, problems and personal strategies from work-life and home-life experiences of participants' individual cases. An interpretative, iterative and

comparative analysis process was conducted in order to acquire insights from interview transcriptions, actor-network diagrams generated from interviews, photos of participants' telework environments, and author's observational notes. These insights with particular interpretations and possible relations (among human, spatial, temporal, interpersonal factors and participants' subjective experiences) are crucial for conclusive discussions of the study and for the core structure of second phase (survey phase) of the study. These insights are presented in the next chapter with other results and discussions. Summaries of interview transcriptions are presented in Appendix B. Actor-Network diagrams are presented in Appendix C.

3.4 Second Phase of Field Study: Survey

This survey was conducted based on insights and projections acquired from the first (interview) phase of field study. It was prepared in Turkish language as it was going to be conducted via participation of Turkish people. Accordingly, the survey is an assemble of various questionnaires which were either translated and adapted or adopted from widely acknowledged questionnaires of related literature, or completely designed by author with original questions based on the interview study. Questionnaires in English were firstly translated into Turkish by five different people who are fluent in both English and Turkish. Then the acquired Turkish versions were sent back to other people from the same group for translating back to English. Lastly, Turkish versions which most closely conveying true meanings of original questionnaire items were used in the survey.

3.4.1 Participants

Survey was conducted by voluntary participation of 67 adults teleworking from home as an employee of any organization.

3.4.2 Data collection

Survey was conducted over Google Forms online application. Survey announcement text was shared and spread by using snowballing method, through social media platforms: Instagram, Facebook and LinkedIn, and also WhatsApp.

3.4.3 Procedures

Survey questions are presented in Appendix D of this thesis. It has 147 items in total, across 9 parts:

1. Demographics and questions about current job and living conditions (13 items) were created by author.
2. Work Immersion (in work hours) and Home Immersion (in non-work hours) questionnaires (16 items) were created by author.
3. Questions about participant's spatial and social interactions and how they feel about these interactions (17 items) were created by author.
4. Work Presence (in work hours) questionnaire (8 items) was created by author. These were inspired by other presence questionnaires (Igroup, 2016; Witmer and Singer, 1998; Usoh et al., 2000) used for virtual reality systems.
5. Home Presence (in non-work hours) questionnaire (8 items) was created by author. These were inspired by other presence questionnaires (Igroup, 2016; Witmer and Singer, 1998; Usoh et al., 2000) used for virtual reality systems.
6. Questions about task types included in job definition of participant and questions about autonomy, routine and teamwork aspects of the job (20 items) were created by author. It was inspired by the taxonomy created by Fernández-Macías and Bisello (2020) for European Union.
7. Questions about participant's past experiences and preferences on work and home lives in terms of space, time and interpersonal relations (17 items) were created by author.
8. Job Involvement questionnaire (10 items) was translated and adapted from Kanungo's (1982) original work. Psychological Detachment from Work (in non-

work hours) questionnaire (4 items) was translated and adapted from work of Sonnentag and Fritz (2007). Job Demands and Stress questionnaire (4 items) was created by author. Work Life Centrality questionnaire (6 items) was translated and adapted from work of Kanungo (1982).

9. Home Life Involvement questionnaire (10 items) was translated and adapted from Kanungo's (1982) original work. Psychological Detachment from Home (in work hours) questionnaire (4 items) was translated and adapted from works of Sonnentag and Fritz (2007) and King (2020). Home Demands and Stress questionnaire (4 items) was created by author. Home Life Centrality questionnaire (6 items) was translated and adapted from work of Kanungo (1982).

3.4.4 Analysis Method

Survey response data of 67 participants gathered from Google Forms were analyzed in SPSS software. Item-total statistics for questionnaires of each construct have been analyzed to test internal consistency and reliability of scales to measure intended constructs; job involvement, work life centrality, home involvement, home life centrality, psychological detachment from work, psychological detachment from home, work presence, home presence, home immersion (in work hours), work immersion (in off-work hours). Furthermore, direct correlation between two constructs has been analyzed for each construct measured. However, more comprehensive analysis on relations among several factors could not be made because of limited data pool.

CHAPTER 4

RESULTS AND DISCUSSION

4.1 Analysis of Interviews and Preparation of Questionnaires

4.1.1 Interpretative and Comparative Analysis of Interview Data

In this part, interpretations about individual cases are not presented according to a predetermined order among participants. Instead, this analysis focuses on problems, strategies and all types of conditions which are relevant and might be critical in terms of the scope of this study. Accordingly, starting from a participant's case with relatively extreme conditions and problems, relative cases with confirming and/or contrasting situations are juxtaposed to provide a gradually developing discussion and analysis of all nine cases. A list of all interpretations is provided at the end.

4.1.1.1 Fifth Participant (P5)

In this sense, the case of P5 is a good starting point as his environment accommodates the greatest amount of diverse scenarios and activities in the most limited space among all participants' cases. In terms of his problems and strategies about WFH, he compares it with commuting. Accordingly, on the days he works from home, he cannot psychologically detach himself from work and cannot feel rested during breaks and after work hours as much as he can on the days he commutes. While working from home, he mostly does not leave the work environment during breaks or at the end of workhour. He feels more rested and can forget about work easier when he leaves the work environment during breaks and at the end of work hours. He works on the kitchen table and chair, or on the couch. While working, he is surrounded by many items that he identifies with his multiple diverse personal interests those he enjoys and values

separately. It is not only about singular objects but also the environment as a whole that he identifies with all those activities. When he has stress and low motivation about work, he starts to gaze around more repetitively, and fantasizes about enjoying his hobbies and other comforts of home life. Then, he starts to feel like a “grounded child” as he is not allowed to do any of those but instead, he has to continue working.

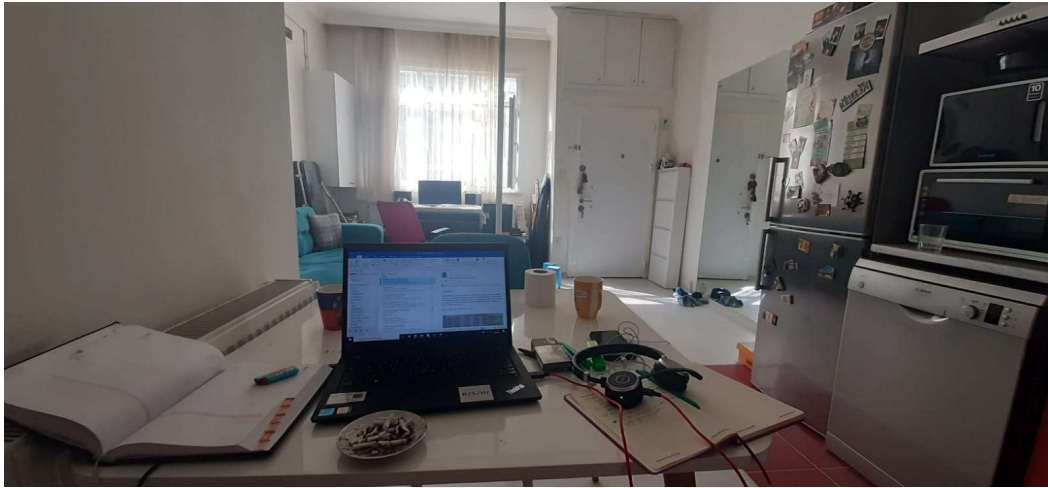


Figure 4.1 A photo of workspace of P5, taken during the work hours. View from his regular sitting position.



Figure 4.2 A photo of workspace of P5, taken during the off-work hours.



Figure 4.3 A photo of workspace of P5, taken during the off-work hours.

P5 has had his own personal room in most of his dwelling conditions, and he cherishes his individuality, freedoms, personal space and time. He is not very social at home, but he clearly does not prefer being alone for a long time, especially while working from home. Otherwise, he feels isolated and gets depressed. It is their first time living and working in such a small physical space. In terms of work life, he has experience with cubicles, open-plan offices and shared rooms. He likes communicating with people while working and human interaction highly motivates him about his job. He actually communicates with people all day long, not just in meetings but also via one-by-one online interactions with colleagues. Without face-to-face and spontaneous interactions, he encounters difficulties to know and build trust with coworkers whom he is not very familiar with. On the positive side, P5 has high motivation about his job; and his job provides almost constant stimuli and feedback so that he can even achieve flow state sometimes. His company does not disturb him during off-work times. His fiancée is at home, and usually in the same room. But she is very supportive of his situation, and they communicate during the day. While working, he has access in low proximity to every facility in the apartment, except enough or proper lighting. However, he has problems of permanent liminality. It might be caused by being simultaneously surrounded by too much stimuli of both home life and work life. He has high motivation for both, and he is constantly stimulated by both while working.

Also, the transition between the times for home and work cannot usually be internalized by him during breaks or at the end of work.

4.1.1.2 Ninth Participant (P9)

The case of P9 has some similarities with P5's. P9 also works hybrid for a very large organization where all his colleagues work hybrid. He also works in a room that he identifies with various essential activities of his home life. P9 works in his childhood bedroom in his parents' apartment. He has experience of living single, living in own room in shared apartments, sharing dorm rooms and sharing room with his brother (until high school ages). He prefers living alone, more personal space, time and freewill at home. He is social outside, but prefers alone time at home. Parents often have guests. But he does not mind because he can spend time in his personal room. In terms of work life, like P5, P9 also prefers teamwork and communicating with people. More than half of P9's daily job involves interpersonal communication that he usually likes doing face-to-face. He enjoys cubicles in open plan office when he commutes. He chooses to work from home when he is tired of too much communication or on the days when he needs to join long meetings that do not require much of his participation. Hence, he plans telework days beforehand accordingly, and does not socialize with colleagues very often while teleworking. His parents are usually at home, and P9 socializes with them during breaks and off-work times. Sometimes, he feels lonely in a negative way while working at home. At home, P9 works in a comfortable environment with a desk and an adjustable ergonomic chair. He has direct access to the balcony, and his room is very close to bathroom and kitchen. He can use these facilities while attending a meeting via a wireless headphone. On the other hand, he identifies this room mostly with gaming, sleeping and watching movies on his personal computer. He loves his gaming setup which includes the same desk and chair he uses while working. He used to have nothing work-related on his personal phone, but he has started to use the phone given by the company several months ago because he was promoted.

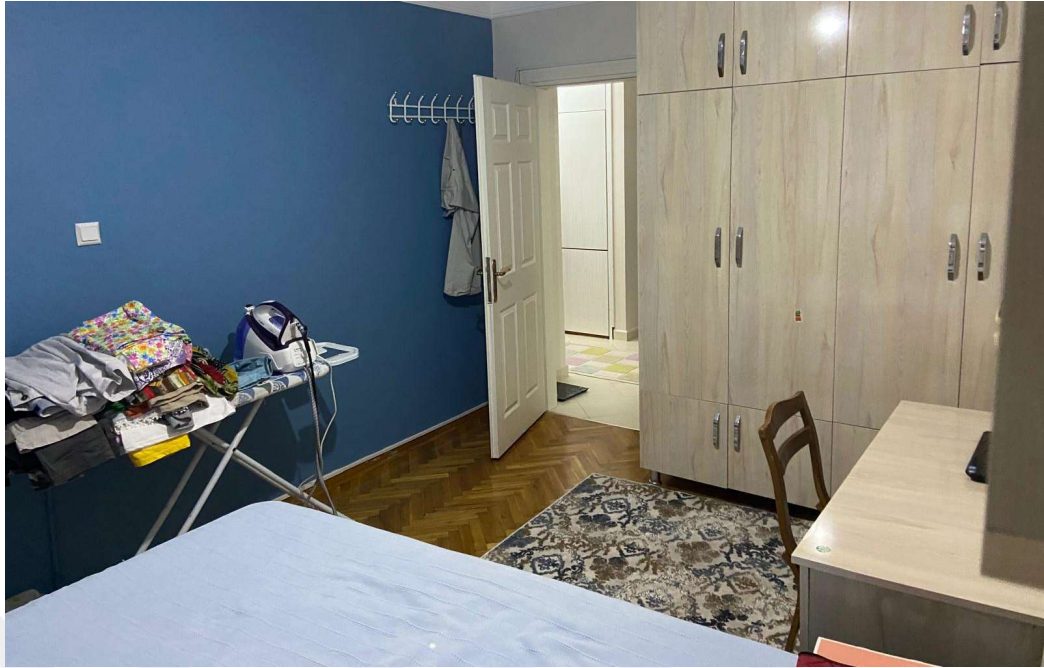


Figure 4.4 A photo of workspace of P9, taken during the off-work hours. Photos were taken late after the interview. During the interview, bed was in closet's place; desk was under bookshelves; and closet was in front of blue wall.



Figure 4.5 A photo of workspace of P9, taken during the off-work hours. Photos were taken late after the interview. During the interview, bed was in closet's place; desk was under bookshelves; and closet was in front of blue wall.



Figure 4.6 A photo of workspace of P9, taken during the off-work hours. Photos were taken late after the interview. During the interview, bed was in closet's place, desk was under bookshelves, and closet was in front of blue wall.

4.1.1.3 First Participant (P1)

The case of P1 also has some similarities with P5 and P9. P1 also works hybrid for a large organization. He also works in living room where he is surrounded by some objects that he identifies with his hobbies and other interests. P1 has always had his own room in his previous dwellings which were shared apartments and parents' apartment. He does not actually like the fact that living room serves as the main circulation area of entire apartment, but he has access to bathroom, toilet, kitchen and balcony in close proximity while working in living room with proper daylight. In terms of work, he is fine with both collaboration and individual work. The open plan office that he commutes to is distractive for him. He likes WFH more than commuting. He thinks that the organization's business manners are not very compatible with WFH. But he is not disturbed by the organization during off-work hours. His job involves meetings every day, and he spends less than half of his work time interacting with people. He is usually alone at home while working, and rarely socializes with coworkers or anyone else during work hours.



Figure 4.7 A photo of workspace of P1, taken during the work hours.

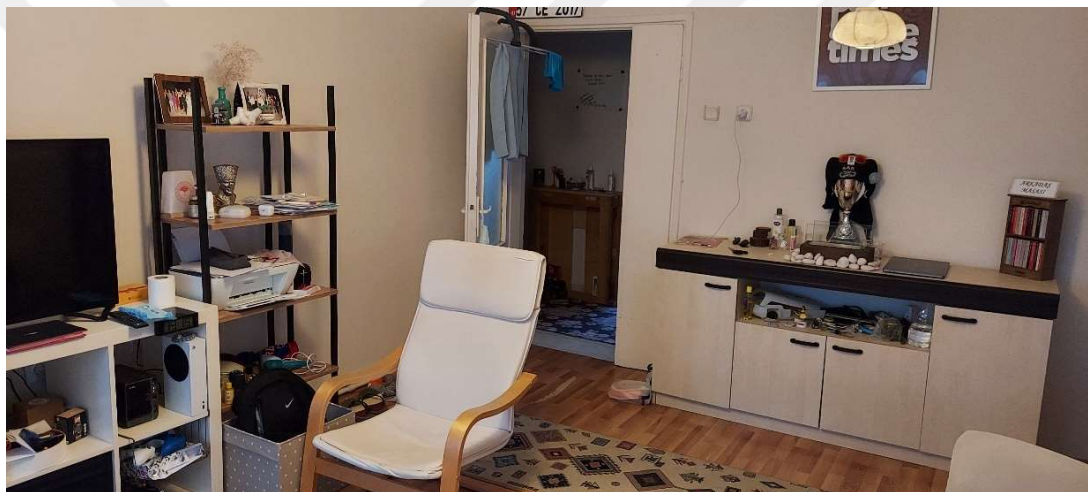


Figure 4.8 A photo of workspace of P1, taken during the off-work hours.

P1 has had an experience of living and working in his bedroom for a while during the pandemic. He reported that it was mentally very difficult for him to sleep, live and work in the same room, and not leave except for a few biological needs. Now, he usually works in living room, using a comfortable armchair and a custom-made wheeled end-table. He places these in front of a large-screen television with game console under it, and he has lots of miscellaneous items around him. He uses the same furniture placement setup for watching television and playing games during breaks and sometimes in the evening. Occasionally, he removes the armchair from the middle of living room in the evening. He, his home mate and guests use the end table for

eating or other purposes during off-work times. During breaks, P1 does not always leave the room or even his usual spot and he watches television or plays video games. But he leaves the room for biological needs and some occasional chores during breaks. He feels “at home” most of the time. He is usually ok with that but sometimes it is difficult to focus. He occasionally uses his desk and chair set up in his bedroom when he needs to focus properly, to attend a very important meeting, or to feel as if he is in an office-like environment.



Figure 4.9 A photo of workspace of P1, taken during the off-work hours.



Figure 4.10 A photo of secondary workspace and bedroom of P1, taken during the off-work hours.

He likes WFH and does not feel any major negative impact of permanent liminality. Having a separate bedroom might be one of his major advantages as he compared this to his past experience of negative impacts of the opposite scenario. Although he occasionally works in his bedroom, he does not usually go to bedroom during work hours. Furthermore, having an option to work in an additional space for specific needs might be an advantageous freedom without causing him to dominantly identify the bedroom with working. Additionally, he can finish his job early and use the extra time for resting unlike his commute days, so he is not overwhelmed by work and especially by being monitored during work hours. Another major advantage might be that P1 leaves home after work almost every day, for either meeting with friends or doing sports training for at least a few hours.

4.1.1.4 Forth Participant (P4)

The case of P4 involves working in living room as in the case of P5 and P9. Also, she occasionally uses an extra room for some meetings like P9. However, her case also involves some unique characteristics. She is the only participant who is the owner of her company, and she has by far the most work experience (24 years) among participants.

P4 has past experience of living single when she was a university student, and sharing room with a sibling in parents' home. She enjoys her current apartment where each family member can have alone time or spend time together when they want. She enjoys hosting guests if it is not crowded for a long time. She likes large spaces and the ability to be alone. In terms of work, she is experienced and fine with both collaboration and individual work. She has experience of working in her personal room and open plan offices. She does not like open plan because it is too noisy, stressful and exhausting with office dramas and people talking on the phone and so on. Now she works full-time from home in the organization that she and her business partner founded together, and they do not have other employees. She has short meetings with her partner every day, and occasionally communicates with clients. Preparing presentations and giving online training to groups of people are major parts of her job next to auditing firms.



Figure 4.11 A photo of workspace of P4, taken during the work hours.

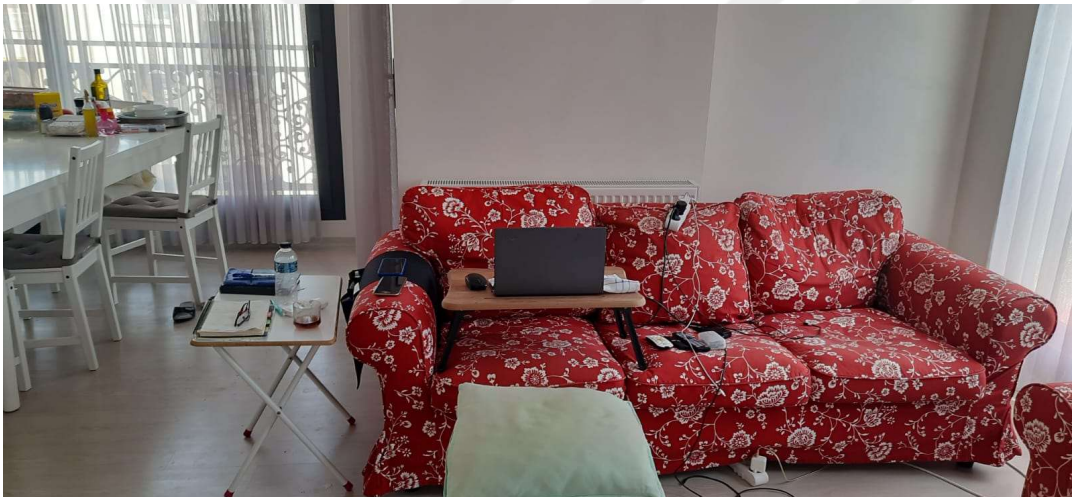


Figure 4.12 A photo of workspace of P4, taken during the work hours.

Half of her work time involves communication. She also communicates with her partner via text messages and occasional audio calls throughout the day. They can even meet outside to just have a coffee and do something other than work. Her son (age:14) and daughter (age:10) are usually at school while she is working. Her husband is at home half of the day, and they have occasional communication during the work hours. They also eat meals and drink coffee together. He cooks and does chores. P4 occasionally does short chores during breaks. She works on the couch directly facing

the television in living room, using a laptop stand, a foot stool and an end table for extra comfort. It is her favorite spot in the house, and she spends most of her free time on that spot at home. She has access to television, efficient daylight, the open kitchen in living room and a balcony right behind her while working far from all bedrooms. Children do not like that she is on the phone or giving training when they are at home during their summer vacation days and so on. The interview does not involve much information about such a period because it was a different time.

She usually does not feel any urge to leave her comfortable workspace. She always feels “at home”, but she can easily get into work mood, and does not feel any inconvenience for working from home. There might be multiple reasons for this. Firstly, she suggests that it is not a crowded or stressful environment like an office. Additionally, when she needs to give trainings for all day long, she uses her son’s desk and adjustable chair in his bedroom for a more office-like environment and not dominating her husband’s home life. She has a secondary occasional workspace as P1 does. Every item in the living room that P4 uses while working is multistable, but she is not surrounded by any item which can tempt her to stop working for doing any other particular activity. While sharing tasks with her business partner, she can choose tasks that are more challenging and more enjoyable for her. She can take a break whenever she wants as long as there is no urgent work or no expected interaction with a client. Another reason might be her years of experience of working in various spaces and her discipline as a result of this experience. She actually elaborated on that she got used to switching between her work identity and home identity when it is time.

4.1.1.5 Sixth Participant (P6)

The case of P6 also involves working in the living room as in most cases above, and P6 also has a child (8-year-old son) like P4. But of course, the case of P6 also has its unique characteristics such as his job and past living experiences. He has experience of living in a crowded home of his parents, where he shared living room and guest room with his siblings to sleep. They often used to have guests to stay for long periods. P6 did not have any personal room until he left home for university in another city.



Figure 4.13 A photo of workspace of P6, taken during the work hours.



Figure 4.14 A photo of workspace of P6, taken during the work hours.

He is generally satisfied with his current home. He enjoys having guests, but they do not have guests very often now since they could not socialize as much after they had a child and then the pandemic happened. In terms of work, P6 as an accountant has mostly individual work and occasional meetings with administrator and other companies. He has experience of working in his personal room and sharing room with other accountants or other coworkers. Now, he usually works full-time from home, but accounting requires some occasional mandatory commute.

P6 works on the dining table and one of its chairs in front of the windows in the living room. Kitchen and toilet room are close to living room. They eat all their meals at the same dining table and chairs as a family. They use the table while helping with the kid's homework or sometimes playing games with kid too. It is the only available room for working in. P6 usually leaves the room on breaks. Other than playing with kid in kid's room and fulfilling most of biological needs, they spend most of their time in the living room during off-work times. During breaks, P6 does occasional outside errands, takes kid from school every day, and usually goes to bedroom to rest and stay alone for a while. When kid is at home, kid comes to P6's bedroom on breaks to spend time together and interrupts P6's plan of resting alone most of the time. P6 usually does not do any major chores during work hours or breaks. His wife is usually at home, cooking and doing chores. She also takes care of the kid and keeps him busy while P6 is working. P6 also takes break while his wife is cleaning the table and around it which is often required since they eat all meals in that area.

When the kid was at home all the time during the pandemic period, P6 had difficulties focusing or even working at all during work hours. In that period, he was working at night after kid slept, then he was waking up early because kid was waking up early. Then he was attending both home and work life alternately or sometimes simultaneously during work hours, without doing any important work unless it is urgent. Then he was waiting for the kid's bedtime so that he could do important tasks. Although he has regular work hours, the type of job could afford such flexibility because it does not matter when he works as long as he finishes his tasks before due dates. Now that the kid is not always at home and does not require caring as much as before, P6 can work in regular work hours. However, he can be called by the company

for urgent matters during off-work hours or even on vacation days. As a habit, he completes those tasks right away so that he can forget about it for the rest of the vacation. Considering that he is not alone all the time, and that his job is mostly individual work, P6 does not complain about loneliness. Instead, he complains about not being able to stay alone and the difficulties of being constantly together at home, especially when the kid is at home. Furthermore, he misses having social and fun lunch breaks outside with coworkers. Nevertheless, he can forget about home when he can focus on working, and he can achieve focus similar to the flow state when there is no major interruption. He can also forget about work during off-work time when he does not have any important task at hand. The reason might be that his job mostly consists of regulated and repetitive tasks that he has 16 years of experience in, and it does not cause him too much stress.

4.1.1.6 Third Participant (P3)

The case of P3 also involves working in the living room as in most cases above, and P3 also has a child (3-year-old daughter). The case of P3 also has its unique characteristics such as type of job, work hours and interpersonal relations. She lives in one of the biggest homes on this list which is an apartment with two stories like P4's home. She has lived in similar home and conditions in adulthood. She has always had her own room while growing up in parents' home. She likes spacious homes, and enjoys her current home which has room for everything. She enjoys having guests as long as it is not crowded. In terms of work, she is used to and fine with both group work and individual work, but she prefers individual work mostly. She is not used to desk jobs. She works full-time from home and likes it. Her job involves occasional work meetings and trainings, but rest is individual work. Mainly, an interface displays short parts from different videos and streams from a social media platform and P3 is asked to judge them for violations and to report them by clicking a button with the appropriate violation tag. Her job is very repetitive and stimulating as she also explained that job does not necessarily require focusing very much, but it is also difficult to be distracted while doing it. System constantly displays videos at certain times of the day, but it is very idle during other times of the day. Her work hours are

defined but she has to change shifts every week rotationally among day, evening and night shifts. Company does not disturb her during off-work hours. A very large group of colleagues works from home. Company provides secured electronics, furniture, special online social events and professional psychological support. She works with a desktop “work” computer on a desk and an adjustable chair in the living room. She can see the sea through the door of terrace that is next to the desk. She has a water cooler next to her, and a small open-kitchen area behind her (other than the main kitchen on the lower floor). She has access to a toilet room and her daughter’s playroom in close proximity. Child is allowed to come and spend time in living room, but she does not seek attention very often and just likes to be around P3. Also, company does not mind when the child’s voice is heard during a meeting. P3 does not have any problem with her workspace, but she does not like sitting on the chair for a long time, thus she leaves the spot on every opportunity. She goes out to terrace for breaks, and also can smoke at terrace while she keeps working actively.



Figure 4.15 A photo of workspace of P3, taken during the work hours.

During the day shift, P3's mother comes to take care of child, and they sometimes spend time next to P3 in living room. She communicates with colleagues only via text while working. During breaks in day shift, P3 does short chores and spends time with her daughter and mother. During the evening shift, daughter sleeps early and husband mostly plays video games in living room, and he communicates with P3. She does not communicate with colleagues very much. During evening breaks, she spends time with husband, talking and watching television. During the night shift, P3 is alone because daughter and husband are sleeping, but she is on audio call with a few colleagues during almost all the night shift. She occasionally leaves home after day shifts, but directly goes to sleep after evening and night shifts. She always tries to eat her meals with family members, but it is not always possible. Otherwise, she eats while working and spares lunch breaks as free time.

She mostly feels "at home" during day and evening shifts, considering being surrounded by chores and family members. She mostly feels "at work" during night shifts, when there is no one around; when it is not possible to do chores; and when she communicates with colleagues all the time. She usually enjoys working from home without any focus problem, stress or anything else. She has access to facilities, a terrace view, and is able to communicate with her child while she is not the main caretaker. Although she is in living room, her workspace is predominantly and very highly identified with work. She leaves the workspace at every opportunity. Company and family are very supportive. These might be the reasons why she usually does not feel disadvantages of a permanent liminality. However, she starts to be confused and easily distracted when she works a lot during a busy hour while family members are around. During such moments, she feels bad about not being able to fully commit herself to either home or work. The case of P3 displays that different time of day might change teleworkers' perception of home and work life drastically, considering the change of interpersonal interactions and use of space. Additionally, having a child at home is not a deterministic factor while working from home. Being the main caretaker or not, and also the type and amount of interactions that are usually desired by children might change the situation's impact for the teleworker.



Figure 4.16 A photo of workspace of P3, taken during the work hours.



Figure 4.17 A photo of workspace of P3, taken during the off-work hours.

4.1.1.7 Seventh Participant (P7)

In the case of P7, workspace is partly a library and hobby room, and it is divided as a zone opening to living room. P7 also has a child (7-month-old son). He has experience of living single, having his own room in a shared apartment, sharing a dormitory room with 3 other persons, and having own room and sharing a room with a sibling in his parents' apartment. His current home is his first time living in such a large space with his wife and baby. He likes the apartment for its flexibility and being spacious with high ceilings. He enjoys having just a few guests at a time. In terms of work, he likes both group and individual work. He has some experience of sharing a room with supervisor, and 5 years of experience of working in open-plan offices. He does not like working next to others because of interruptions, but he likes the spaciousness of open-plan offices. He does not like socializing with coworkers very much. He works full-time from home and likes it. He has 7 years of experience in jobs which are similar in terms of job definition.

His tasks change on a daily basis. Job requires some level of teamwork. Some weeks, meetings take half of his day, while he does mostly individual work during other weeks. Team members use online collaboration tools very actively and they are online on communication tools all day long. P7 does not socialize with colleagues very much. He just makes small talk with them before meetings, as he has always been in other jobs too. All his team works from home and there are other similar teams from other countries as well. His team sets meetings in a way respecting each members' breaks and lunchtime. Their workflow and business manners generally take shape around online collaboration tools and platforms. He has regular and defined work hours, but he can occasionally take breaks for chores and then compensate for that time during off-work hours.

P7 works with desktop computer on a long desk in work/reading/hobby room which connects to living room through a large opening. This opening was closed by large double doors and the zone of workspace has another connection to the entrance hall. However, P7 has chosen to block the door to entrance hall, and to remove the doors between work and living rooms in order to join them together. This workspace with

desk, chairs and computer is dominantly used for work. Hobby items like Lego pieces, comic books and model-crafting materials are used in this space for much lesser time and they are stored in wall-size bookcase with doors behind P7. While working, he can see the baby, caretaker (his wife, mother or mother-in-law) and the cat in living room. Thus, he can attend to home emergencies while attending meetings with wireless headphones. He has access to efficient daylight and a French balcony. Bathroom is next to living room while bedroom and baby's room are on the other side of the apartment divided by a room-size entrance hall. His wife also works from home but in hybrid model, sharing the desk with P7. Either his mother or mother-in-law is at home for the baby during work hours. They usually take care of baby in baby's room. P7 and his wife negotiates about their schedule and babysitting situation for the day every morning. Occasionally, P7 needs to do babysitting, thus he arranges his breaks to feed baby or to have a walk outside with baby. On short breaks, he occasionally goes to the large balcony with a pleasant and quiet ambience on the other side of the apartment, or he plays with cat. Usually, he takes breaks to do something instead of just relaxing. Thus, he usually leaves the workspace during breaks. He just grabs a book from the bookcase behind when he wants to relax. He is not called for work during off-work hours. He usually does not leave home after work. He never feels fully "at work" because of being aware of flexibilities of WFH. He mentions that his perception has changed since he started WFH, and he does not consider work life very serious and formal as before. But he still consciously recreates that formality by working on a desk and computer so that he can keep up some level of discipline. His changed perception about work life, flexible work hours, having comfortable space dominantly used for work, being connected to only a chosen part of the house might be reasons why he is not stressed, why he does not feel the urge to detach from work during the day and why he does not suffer from permanent liminality. It should also be considered that he actually leaves the workspace and sometimes even the home during work hours. Although he feels advantageous about WFH, he admits that his sleep quality has decreased since he started WFH. Additionally, he admits that he tries to occupy himself with other things during off-work times so that he does not think about work because he considers himself "a little bit workaholic".



Figure 4.18 A photo of workspace of P7, taken during the work hours.



Figure 4.19 A photo of workspace of P7, taken during the work hours. Photos were taken on a date later than the interview. P7 decided to block the double door opening to the living room, and moved the couch from its older place in front of the wall in the right-hand side of the photo.

4.1.1.8 Eighth Participant (P8)

The case of P8 also involves working in an environment opening to living room like the case of P7. The case of P8 also has its unique characteristics such as her living condition, relation with space, relation with job and her journey throughout her WFH experience. She always had her own room during her various shared house experiences and while growing up in parents' house, except for a short period of sharing a dormitory room once. She has experienced living in her tent for 8 months while working for a hotel. She has been living alone with her cat for a while since before she started WFH 2 years ago. She likes living alone and having the flexibility to divide living room into living and working zones. She has social anxiety disorder which gets aggravated in crowded spaces, but she enjoys having 2-3 guests once a week. In terms of work, she has experience with call-center job where she was working on a narrowly divided long desk in a crowded large open-plan office which she hated, but she does not have any experience of corporate desk job. She likes individual work more, but she considers human interaction as a requirement for herself based on her experiences. She works full-time from home. Her job involves mostly individual work except Monday work meetings and a customer call once a few days. She communicates with coworkers by text and audio via the online communication tool used by company, and they also have social meetings on Friday. She has regular and defined work hours. All her team members work from home and there are other teams from various countries as well. She is mostly alone while working, but she occasionally has one or two guests who work or study in her living room during her work hours. She enjoys human interaction during breaks. She is not called for work during off-work hours, and she has muted the work-related things on her phone.

P8 works in the office zone of the living room divided in half. She uses two computers and monitors given by the company, on an extended desk and an adjustable chair while working. She uses "work" computers and personal computer only for their intended purposes. She does not enter the office zone during off-work times. She does her recreational activities in the living zone where she can sit without even seeing the office zone. She does not work anywhere else other than the office zone. The office

zone is comfortable, but its objects are very different than her usual style at home. She has access to efficient daylight, sky view and a spacious environment that she identifies as a requirement for the space where she spends most of her day.



Figure 4.20 A photo of workspace of P8, taken during the off-work hours.



Figure 4.21 A photo of workspace and living room of P8, taken during the off-work hours.

She does not have major focus problems in general. If she cannot focus, she takes a break to leave the office zone and to do short chores that she enjoys or play a game on her phone, so that she does not get overwhelmed. After that, she usually turns back

with a clear mind. She needs to pass the living zone to access the kitchen and then a corridor to go to bathroom, but this walk helps for a quick break detached from work. She never stops working just to do chores and never does time consuming chores during work hours. However, she occasionally gets distracted during a break and finds herself procrastinating with chores. During the lunch breaks, she has lunch at the dining table, sometimes has a shower, and usually naps in bedroom on the other side of the apartment. For P8, work is not for enjoying but it is mandatory. The office zone reminds her of that, with its being comfortable but not cozy and being almost alien for her aesthetic taste. She can separate the zones in her mind as well, as she says, with her changing mind state and attitude between two zones. She can “wear her professional identity” and act accordingly while working. She can ignore the office and feel as if office is not even there while she is in living zone. But it was different before, when living zone and office zone were on opposite sides and she was having a severe depression for a period. She used to have to go through the office zone to move between the living zone and the rest of the house. Considering that not being able to work was also depressing for her in that period, she was not able to go to living zone by passing through and seeing the office zone. However, she is better now and feels better in the current spatial conditions. Such spatial change might have helped her forget about work during off-work time by physically distancing her from visual stimuli triggering uncomfortable thoughts about work. Besides that, P8 does not leave home very often even on weekends. She feels lonely while working and also says it is like “fighting the world alone” because she cannot have enough feedback or instant tips and help. She also stresses a lot about work manners and rules because she has no former corporate desk job experience. She usually counts remaining minutes during breaks so that she is not late after breaks. She has difficulties relaxing, and she makes extra efforts to detach from work, such as spatial changes and doing different activities. However, when she has a guest working next to her, she can focus better, relax better and turn back from breaks without procrastinating. Combination of being inexperienced and being isolated might be causing visibility issues and leading her to compensate.

4.1.1.9 Second Participant (P2)

The case of P2 is one of the most unique among all interviewees. She has a completely separate room for work. She is the only one working from home in the company. Additionally, she is not supposed to be working during all work hours, and she works any time when she is needed even during off-work hours.



Figure 4.22 A photo of workspace of P2, taken during the off-work hours.



Figure 4.23 A photo of workspace of P2, taken during the off-work hours.

P2 has always had her own room in her parent's apartment till she got married, and then she has lived with her husband in apartments similar to the current one. She likes her apartment which has room for everything they need. She does not like having guests frequently. In terms of work life, she prefers individual work. She does not have much experience of a desk job before her current job (8 years). Before WFH, she used to share a room with her employer. She does not like being completely alone while working, but does not like to be accompanied by more than one person. She works full-time from home, but she would prefer commuting if she had chance. She has Monday meetings, occasional meetings with clients and coworkers, and rare day-long meetings. Rest of her work is individual. Company has regular work hours, but hers is not very defined. She works whenever she is requested or when she needs to prepare documents for a due date. Sometimes, she is asked to work in off-work times too. She does not problematize this because she is used to working till late hours in this job. Additionally, she loves working and especially working for her current company also because she has strong relationships with her employers. While working from home, she is mostly alone with cat, and she rarely socializes with coworkers. However, she regularly socializes with her sister and mother over the phone, and she leaves home to do errands or occasionally to meet with a friend during idle work hours. She usually does not leave home after work hours.

P2 almost always feels "at home", but she does not mind it when she needs to work at the moment. She can concentrate in the work room, but most of the time she is not in the work room. Also, she does not have to be in the room when there is no urgent work. This creates long time periods that she is idle in terms of work. Therefore, she tries to be physically active all day long and she does various household chores during work hours. She thinks that everyone considers her doing nothing but resting all day long, and she exhausts herself by trying to compensate. She even wakes up as early as factory workers, just because she feels bad about being only one working from home. When there is work, she prioritizes the work and closes herself to everything else. She is still successful in her job, but there is one change of attitude she feels bad about. She used to finish any task right away even though she was weeks away from the due date. However, she has started to procrastinate and postpone doing such tasks increasingly

since she started working from home. She used to be very active while commuting, because she was working next to her employer, and she was involved in almost every kind of tasks all day. However, in her current condition, relatively decreased workload and being the only teleworker of the company might have caused her visibility problems, self-induced moral pressure and mislead her to overcompensate. Although she has isolated her workspace from home environments and she can focus on work in that room without any issue, she is caught in the middle between the idea of getting bad at her job by waiting idle in a room and the idea of staying active for the job by doing extra chores or other physical activities all day long. In the end, none of these options gives her comfort. Therefore, it should be noted that even though spatial immersive qualities might help consolidating work-home boundaries, the individual essentially needs to be in that particular space to be immersed by it. Additionally, it should be further studied that future teleworkers and employers might need to evaluate the applicability of jobs with certain types of workflows. Furthermore, people who want to work from home might need to look out beforehand for an alignment among their motivations, kind of workflow expected from them, and capabilities of their home. Lastly, temporal boundaries might also have immersive qualities to signify a more defined time period for work life and non-work life so that individuals can make healthier transitions between times that they need to be active and working and the other times that they do not have to think about work.

4.1.2 Insights from Interview Analyses

- Even though an individual is surrounded by a physical or social environment that is highly immersive as a home environment (or bedroom, entertainment room etc.) for the individual, extrinsic and intrinsic motivations like reward expectation, fear of failure or responsibility might help to detach from home and to focus on work at least for the duration of a particular task at hand.
- On the other hand, humans tend to be distracted more easily when they have low motivation, or when they are tired or bored of the task at hand (**add reference*). Combination of being in such a state, and also teleworking from a home

environment where the individual is surrounded by items reminding homelife privileges and freedoms (e.g. personal interests, hobbies, entertainment, resting etc.) or responsibilities (e.g. chores, caretaking etc.) might distract individuals more than the situations where only one of these two conditions is true.

- When individuals have high stress and low motivation about work, having to work from a home environment where the individual is surrounded by items reminding homelife privileges and freedoms (e.g. personal interests, hobbies, entertainment, resting etc.) might cause individuals to feel deprived or even punished for no other reason. Potential impacts on psychological health and individuals' perception of their job can be studied further.
- Comforts or discomforts caused by ergonomic, thermal, air or lighting quality might support or break the illusion of presence for home or work life. It depends on how the individual relates that comfort or discomfort with work or home life. For example, an individual can be discomforted by bright office lightings, but the same individual might be more immersed by the work environment when they have bright office lightings while working from home.
- Lack of liminal space and time between work and home life, or lacking change of environment which could trigger a feeling of transition especially when work hour ended might depreciate or take away the reward value of reattaining home life privileges and freedoms at the end of the workday. This can be studied further in terms of WFH's potential impacts on work motivation and individuals' perception of their own home environment.
- Liminal space and time between work and home life, or change of environment which could trigger a feeling of transition when work hour ended might improve psychological detachment from work after work hours. This might also be valid for any kind of breaks while teleworking from home.
- Leaving the room or home might constitute the aforementioned transition through liminal space and time. Such transition might be more immersive and effective when it is supported by multiple types of stimuli to identify the transition, such as spatial, temporal, social and behavioral variations.

- When it is not disruptive, socializing with household members during work hours and breaks might help teleworkers to not feel lonely and to adapt easily to WFH.
- Being able to choose which tasks to do at home might provide flexibility for teleworkers to integrate their work life and home life in a less intrusive way.
- Having additional options to work somewhere other than the main workspace or home might provide flexibility for teleworkers to integrate their work life and home life in a less intrusive way.
- Being able to choose work, off-work and break time might provide flexibility for teleworkers to integrate their work life and home life in a less intrusive way.
- Having a bedroom where the teleworker usually does not work in, and not working next to a place dominantly identified with sleeping activity might be a core advantage in terms of protecting work-home boundaries.
- Past experience of working in stressful and distracting environments might provide some kind of acquired discipline or tolerance against environmental factors, so that the individual is less likely to be affected by permanent liminality.
- Having child(ren) does not have deterministic impacts on teleworkers' work-home boundaries. It does not matter if the teleworker has a child, adult, elder or a pet etc. at home. The impact depends on the nature of relationship between a household member and the teleworker.
- An individual's perception about work life and home life might modify the subjective experience of permanent liminality.
- Psychological health problems which can affect individuals' actual perception of the act of working, interpersonal interactions or relation with physical environment might affect teleworkers' work-home balance while working from home. Such individuals might be triggered by visual stimuli to an extent that they need clearer and stronger boundaries solidified by various spatial, temporal and behavioral cues.

- Depending on the complexity of job and the organizational structure, newcoming workers (being in an adaptation and learning period) might be too isolated and stressed out, and they might have visibility issues and try to overcompensate while working from home.
- While working from home, being accompanied by another person who is also working/studying might create a more immersive work environment as seeing another person working next to you might give motivation to work or at least remind that you also need to be working.
- To be able to talk about spatial immersion, the individual essentially needs to be exposed to that space.
- Architectural flexibility can provide teleworkers with the ability to integrate their work life and home life in a less intrusive way. Furthermore, they could also have the ability to choose what extent and what facilities or features of home life they want to have access to while working from home. It can also help them adapt to further work or home lifestyle changes which might develop while already working from home.

4.1.3 Preliminary Statements

Statement 1: When an individual is more immersed with an environment associated by the individual with a particular domain (of home or work), the individual feels more present in that domain.

Statement 2: When an individual is immersed more with a particular domain-A and less with another domain-B, the individual gets more psychologically detached from domain-B.

Statement 3: High demands of domain-A have a modifying impact on the relation between immersion in domain-B and psychological detachment from domain-A.

Statement 4: High stress of domain-A has a modifying impact on the relation between immersion in domain-B and psychological detachment from domain-A.

Statement 5: High involvement in domain-A has a modifying impact on the relation between immersion in domain-B and psychological detachment from domain-A.

4.2 Analysis of Survey Data

Item-total statistics of each construct have been analyzed. Accordingly, each scale measuring job involvement, work life centrality, home involvement, home life centrality, psychological detachment from work, psychological detachment from home, work presence, home presence, home immersion (in work hours), work immersion (in off-work hours) and object stabilities have reliable internal consistency. Therefore, all newly created scales and all translated and adapted scales issued in this survey are usable for further analyses.

Although the results presented here are limited because of low data pool (67 participants), findings display some expected correlations and some intriguing and promising results.

Firstly, psychological detachment from work (PDW) and job involvement (Jinv) were found to be moderately negatively correlated, $r(65) = -.42, p < .01$. PDW and work life centrality (WLC) were also found to be moderately negatively correlated, $r(65) = -.44, p < .01$. These results were expected as it makes sense that it might be difficult for people with high Jinv or WLC to detach themselves from work-related issues during off-work hours.

Psychological detachment from home (PDH) and job involvement (Jinv) were found to be weakly correlated, $r(65) = .25, p < .05$. It was expected that people with high JI might easily detach themselves from home-related issues during work hours.

Psychological detachment from home (PDH) and work presence (WP) were found to be weakly correlated, $r(65) = .27, p < .05$. It was expected that people who can embrace and be a part of work life during work hours might easily detach themselves from home-related issues while working or vice versa.

Home immersion during off-work hours (HI) and work immersion during work hours (WI) were found to be strongly correlated, $r(65) = .69, p < .01$. This might be caused

by that people who use home environments and objects during work time also use work environments and objects during off-work time. What weakens the correlation between these two constructs might be caused by items about other types of invasions of one network on another, such as being expected to open work calls during off-work time or doing household chores during work hours.

Work life centrality (WLC) and work immersion (WI) were found to be weakly negatively correlated, $r(65) = -.27, p < .05$. It might be that some people with high WLC tend to integrate their workspace into living space as in case of P4 from the interview phase.

Home life centrality (HLC) and psychological detachment from work (PDW) were found to be weakly negatively correlated, $r(65) = -.26, p < .05$. HLC and home presence (HP) were found to be moderately negatively correlated, $r(65) = -.34, p < .01$. It might be that when people with high HLC work from home, they might feel as if their home is invaded by work life to an extent. Thus, they have difficulties detaching from work and solely being part of the home life. This is also partly supported by the fact that PDW and HP were found to be moderately correlated, $r(65) = .39, p < .01$. This was expected as it makes sense that people who can detach themselves from work during off-work times might feel more “at home”. This is similar to the relation between PDH and WP mentioned above.

Work immersion (WI) and work presence (WP) were found to be weakly correlated, $r(65) = .28, p < .05$. Additionally, no correlation was found between home immersion (HI) and home presence (HP). This might be caused by modifying effects of other factors. For example, personal traits like WLC and HLC are important candidates for it as they were expected to affect individuals’ tendency to be actually immersed by immersive qualities of work or home environment. But 67 participants are not enough to test such modifying impacts.

On the other hand, HP and WP were found to be strongly correlated, $r(65) = .60, p < .01$. Considering the strong correlation between HI and WI, these correlations might provide support for understanding permanent liminality and work-home balance. Because differences between the people who have high HI and WI and the people who

have low HI and WI, or differences between the people with high HP and WP and the people with low HP and WP might explain how work-home boundaries work. But 67 participants are not enough to test differences between groups.

WI and HP were found to be weakly correlated, $r(65) = .29, p < .05$. Similarly, WI and PDW were found to be weakly correlated, $r(65) = .26, p < .05$. These similar trends make sense because HP and PDW were already found to be moderately correlated. However, such correlations between WI during work hours and individuals' PDW and HP during off-work hours might be representing the people who have high WI during work hours but low HI during off-work hours.

Psychological detachment from work (PDW) and work presence (WP) were found to be weakly correlated, $r(65) = .28, p < .05$. It is possible that people who can rest and forget about work during off-work time might embrace the work life during work hours as a result of good work-home balance. Larger data pool is required to make a deep-dive analysis of complex relations among several factors.

Table 4.1 Item-Total Statistics for Home Immersion Scale.

Item-Total Statistics for Home Immersion					
	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Corr.	Squared Multiple Corr.	Cronbach's Alpha if Item Deleted
2.12-...Odayı veya odaları kullanırız.	23.403	71.396	0.691	0.839	0.689
2.13-...Mobilyaları kullanırız.	23.3433	69.653	0.803	0.872	0.671
2.14-...Elektronik cihazları kullanırız.	23.0299	70.12	0.702	0.666	0.686
2.15-...Objeler benim görebileceğim ve erişebileceğim bir yerde durur.	24.1045	81.974	0.492	0.504	0.728
2.16-...Objeleri görmek iş ile ilgili düşünmeme sebep olur.	22.5821	82.762	0.443	0.372	0.735
3.3 - Hem çalışırken, hem dinlenirken, hem de kişisel veya ev hayatıma özgü aktiviteler sırasında zamanımı aynı mekanda geçiriyorum.	23.806	82.765	0.54	0.432	0.724
3.9 - Vaktimi çalışma ortamımda geçirmem.	23.597	90.941	0.193	0.324	0.771
3.10 - İşyerinden insanlarla, iş ile ilgili sebeplerle iletişim kurmam bekleniyor (telefon, e-posta, mesaj, vs.).	23.3881	92.453	0.102	0.108	0.79
6.17 - Mesai dışındaki zamanlarda (mesai sonrası, tatil günü, vb.) çalışmam bekleniyor.	22.0597	96.663	0.039	0.322	0.788

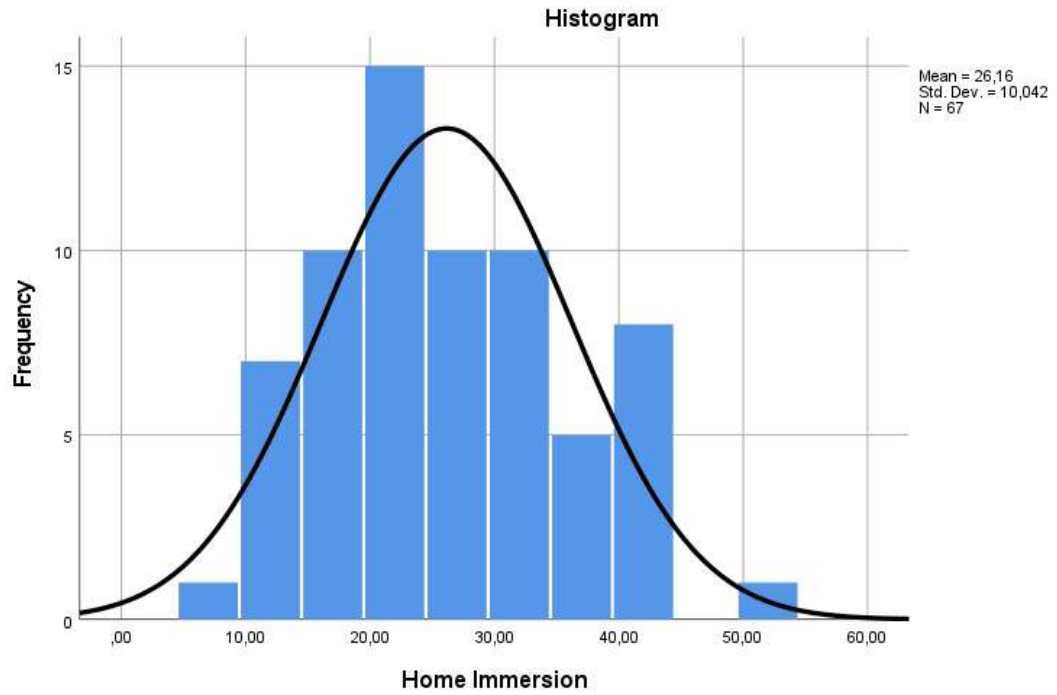


Figure 4.24 Histogram of Home Immersion scale

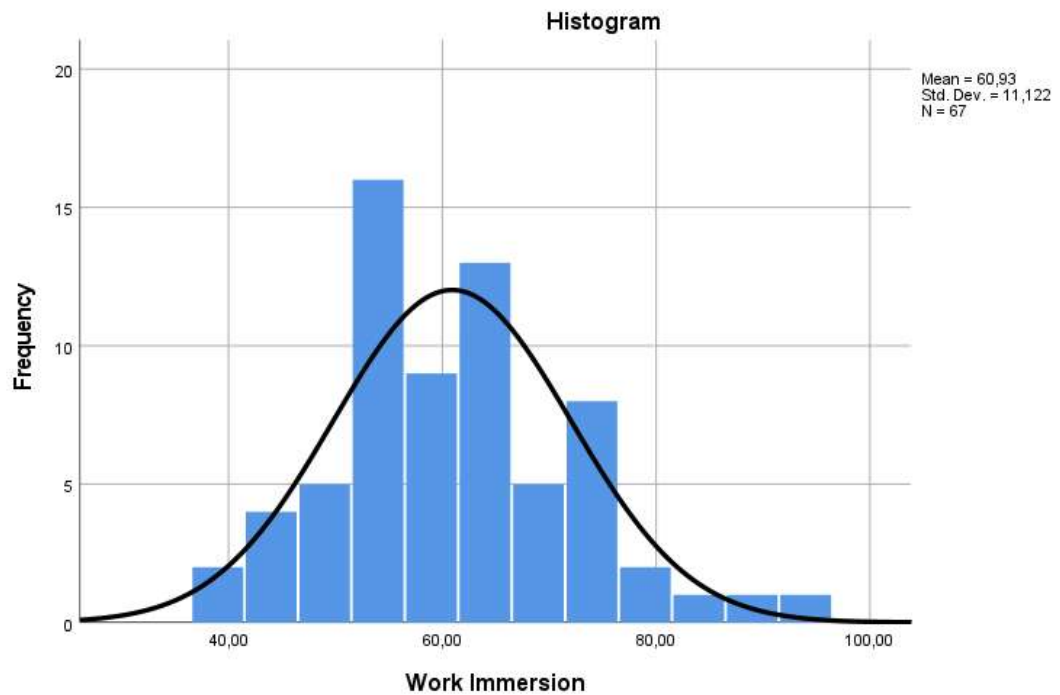


Figure 4.25 Histogram of Work Immersion scale.

Table 4.2 Item-Total Statistics for Work Immersion Scale.

Item-Total Statistics for Work Immersion					
	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Corr.	Squared Multiple Corr.	Cronbach's Alpha if Item Deleted
2.1- Kısa molalar veya öğle arası gibi zamanlar dışında, günlük toplam mesai saatinizin ortalama ne kadarında çalışma alanınızda (bilgisayar başında, vb) oluyorsunuz?	57.87	125.209	0.159	0.281	0.647
2.2 - Evdeki diğer insanların yaptığı aktivitelerden dolayı ana çalışma alanımdan başka bir yerde çalışmaya devam etmek veya çalışmayı bir süre durdurmak zorunda kalıyorum.	57.63	123.207	0.31	0.551	0.632
2.3 - Evde çalışma alanı/köşesi/odası olarak belirlediğim herhangi bir mekan yok, sürekli yer değiştiriyorum.	57.33	121.224	0.249	0.542	0.637
2.4 - Çalışmama ara verip, evle ilgili veya evde yaşayanlarla ilgili ihtiyaçları karşılamak gibi şeyler yapıyorum.	58.7	120.576	0.366	0.439	0.625
2.5 - Çalışma alanım; masa ve sandalye gibi veya ayakta çalışma masası gibi bir ofis düzenine sahip.	57.57	114.704	0.385	0.597	0.617
2.6 - Çalışma alanım; ışık, sıcaklık, havalandırma, manzara ve benzeri açılardan konforlu.	57.96	120.71	0.294	0.418	0.631
2.7-...Odayı veya odaları kullanırım.	59.58	118.944	0.248	0.561	0.637
2.8-...Mobilyaları kullanırım.	59.48	112.284	0.419	0.797	0.611
2.9-...Elektronik cihazları kullanırım	59.27	107.018	0.503	0.631	0.596
2.10-...Objeler benim görebileceğim ve erişebileceğim bir yerde durur.	60.15	119.826	0.279	0.462	0.633
2.11-...Objeleri görmek iş dışı konularla ilgili düşünmeme sebep olur.	58.19	114.189	0.509	0.49	0.606
3.1 - Diğer çalışanlarla, işle ilgili konularda yeterli ve etkili bilgi akışı sağlayamadığımı düşünüyorum.	57.87	127.482	0.076	0.488	0.658
3.2 - Diğer çalışanlarla, iş dışı konularda yeterli ve etkili bir şekilde sosyalleşemediğimi düşünüyorum. (muhabbet, arkadaşlık, vb.)	59.1	122.61	0.193	0.476	0.644
3.3 - Hem çalışırken, hem dinlenirken, hem de kişisel veya ev hayatıma özgü aktiviteler sırasında zamanımı aynı mekanda geçiriyorum.	59.72	116.964	0.405	0.51	0.618
3.6 - Çalışırken bulunduğum odayı aynı anda başka insanlar da beni rahatsız etmeyecek iş, ders vb. aktiviteler yapmak (çalışmak) için kullanıyor.	60.01	149.742	-0.426	0.844	0.724

<i>Table 4.2 continued</i>					
	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Corr.	Squared Multiple Corr.	Cronbach's Alpha if Item Deleted
3.7 - Çalışırken, bulunduğum odayı aynı anda başka insanlar da kişisel veya ev hayatına özgü aktiviteler yapmak için kullanıyor.	57.76	123.942	0.162	0.859	0.648
3.8 - Çalışırken, bir yandan da iş haricindeki insanlarla (evdekiler, arkadaşlar, akrabalar vs) iletişim kuruyorum. (yüz yüze, telefon, mesaj, çevrimiçi ortamlar, vb.)	59.13	120.148	0.322	0.511	0.628
6.19 - Aktif olarak evden çalıştığımız mesai süresi boyunca ne sıklıkla işle alakalı insanlarla iletişim kuruyorsunuz?	57.96	126.165	0.189	0.403	0.643

Table 3.9 Item-Total Statistics for Psychological Detachment from Work Scale.

Item-Total Statistics for Psychological Detachment from Work					
	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Corr.	Squared Multiple Corr.	Cronbach's Alpha if Item Deleted
11-İşi unuturum.	8.97	24.726	0.875	0.815	0.9
12-İş hakkında hiç düşünmem.	9.28	24.964	0.841	0.712	0.911
13-Kafamı işimden uzaklaştırırım.	8.75	24.677	0.89	0.823	0.895
14-İşin taleplerine, beklentilerine ara veririm.	8.46	26.101	0.759	0.584	0.938

Table 3.10 Item-Total Statistics for Psychological Detachment from Home Scale.

Item-Total Statistics for Psychological Detachment from Home					
	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Corr.	Squared Multiple Corr.	Cronbach's Alpha if Item Deleted
11-Evi unuturum.	7.15	17.099	0.796	0.674	0.907
12-Ev hakkında hiç düşünmem.	7.27	16.563	0.839	0.706	0.892
13-Kafamı evimden uzaklaştırırım.	6.99	16.409	0.869	0.761	0.881
14-Evin taleplerine, beklentilerine ara veririm	6.81	18.068	0.777	0.649	0.913

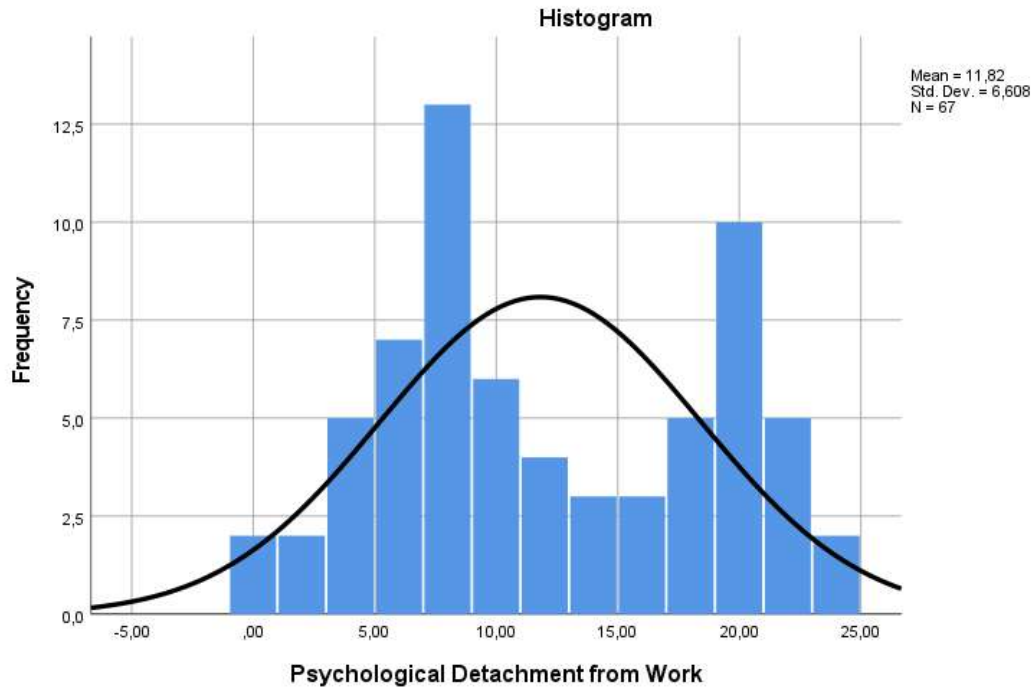


Figure 4.26 Histogram of Psychological Detachment from Work scale.

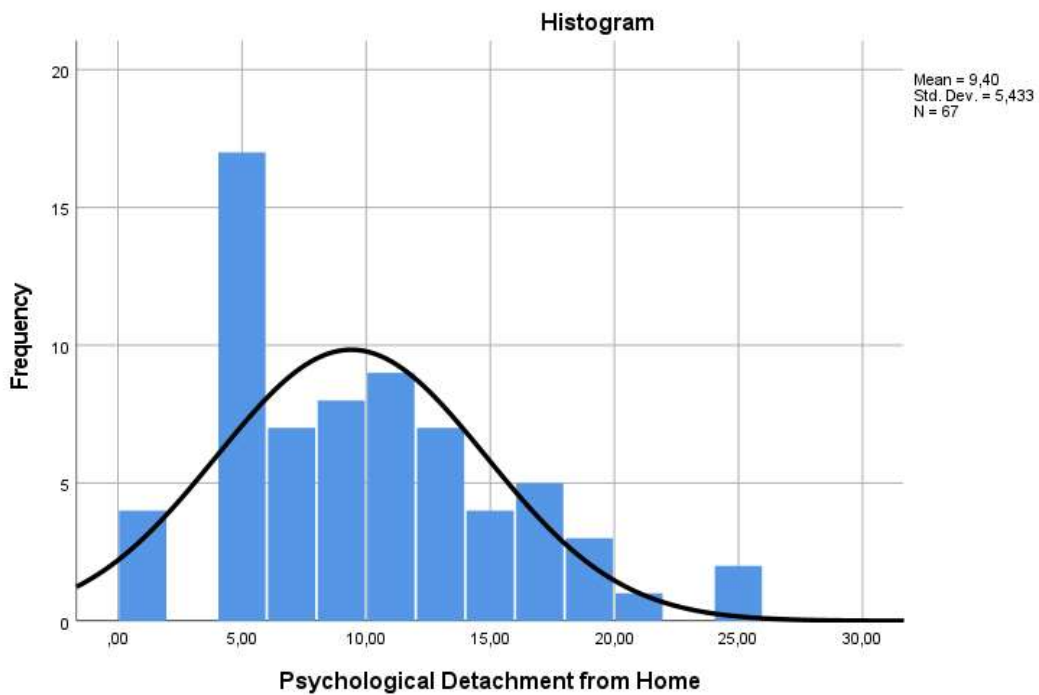


Figure 4.27 Histogram of Psychological Detachment from Home scale.

Table 4.3 Item-Total Statistics for Home Presence Scale.

Item-Total Statistics for Home Presence					
Evden çalışırken mesai saati dışında... (1,2,3: Ev hayatının...)	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item- Total Corr.	Squared Multiple Corr.	Cronbach's Alpha if Item Deleted
1 - ...bir parçası olduğumu hissediyorum.	26.06	69.239	0.755	0.769	0.858
2 - ...gelişme, durum ve olaylarının hemen farkında olabiliyorum.	25.9	71.216	0.779	0.81	0.856
3 - ...gelişme, durum ve olaylarına, gerektiğinde hemen dahil olabiliyor veya harekete geçebiliyorum.	25.84	70.594	0.822	0.824	0.852
4 - ... zihnen tamamen evde oluyorum.	26.46	69.374	0.816	0.786	0.852
5 - ... ev hayatıma özgü kişiliğime/rolüme giriyor ve kendiliğimden buna uygun bir şekilde düşünüyorum ve davranıyorum.	26.24	71.063	0.849	0.838	0.851
6 - ... tamamen ev hayatıma ayrılmış bir ortamda olduğumu hissediyorum.	26.37	71.025	0.798	0.875	0.855
7 - ... tamamen ev hayatıma ayrılmış bir zaman diliminde olduğumu hissediyorum.	26.25	71.283	0.794	0.882	0.855
8 - ... iş (hayatım) ile de ilgili her gelişme, durum ve olayın farkında oluyorum.	27.61	101.332	-0.262	0.157	0.945

Table 4.4 Item-Total Statistics for Home Presence Scale. Redundant items were removed.

Item-Total Statistics for Home Presence					
Evden çalışırken mesai saati dışında... (1,2,3: Ev hayatının...)	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item- Total Corr.	Squared Multiple Corr.	Cronbach's Alpha if Item Deleted
1 - ...bir parçası olduğumu hissediyorum.	23.57	73.704	0.773	0.769	0.941
2 - ...gelişme, durum ve olaylarının hemen farkında olabiliyorum.	23.4	75.396	0.812	0.803	0.936
3 - ...gelişme, durum ve olaylarına, gerektiğinde hemen dahil olabiliyor veya harekete geçebiliyorum.	23.34	75.017	0.844	0.824	0.934
4 - ... zihnen tamamen evde oluyorum.	23.97	74.635	0.804	0.775	0.937
5 - ... ev hayatıma özgü kişiliğime/rolüme giriyor ve kendiliğimden buna uygun bir şekilde düşünüyorum ve davranıyorum.	23.75	75.829	0.858	0.836	0.933
6 - ... tamamen ev hayatıma ayrılmış bir ortamda olduğumu hissediyorum.	23.88	75.652	0.812	0.875	0.936
7 - ... tamamen ev hayatıma ayrılmış bir zaman diliminde olduğumu hissediyorum.	23.76	75.7	0.818	0.882	0.936

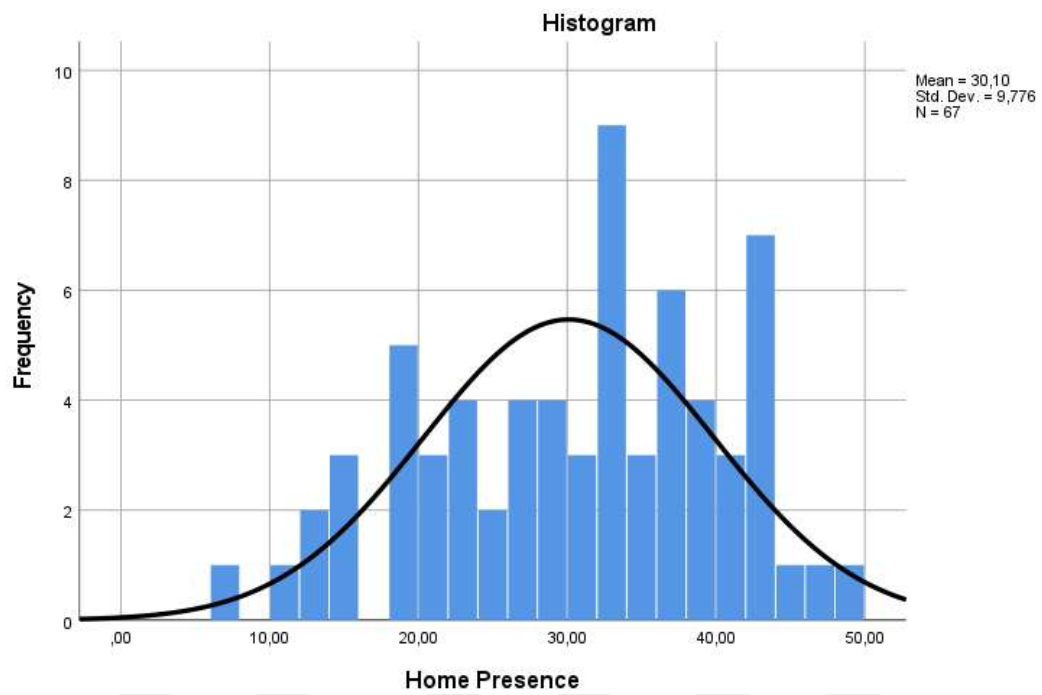


Figure 4.28 Histogram of Home Presence scale.

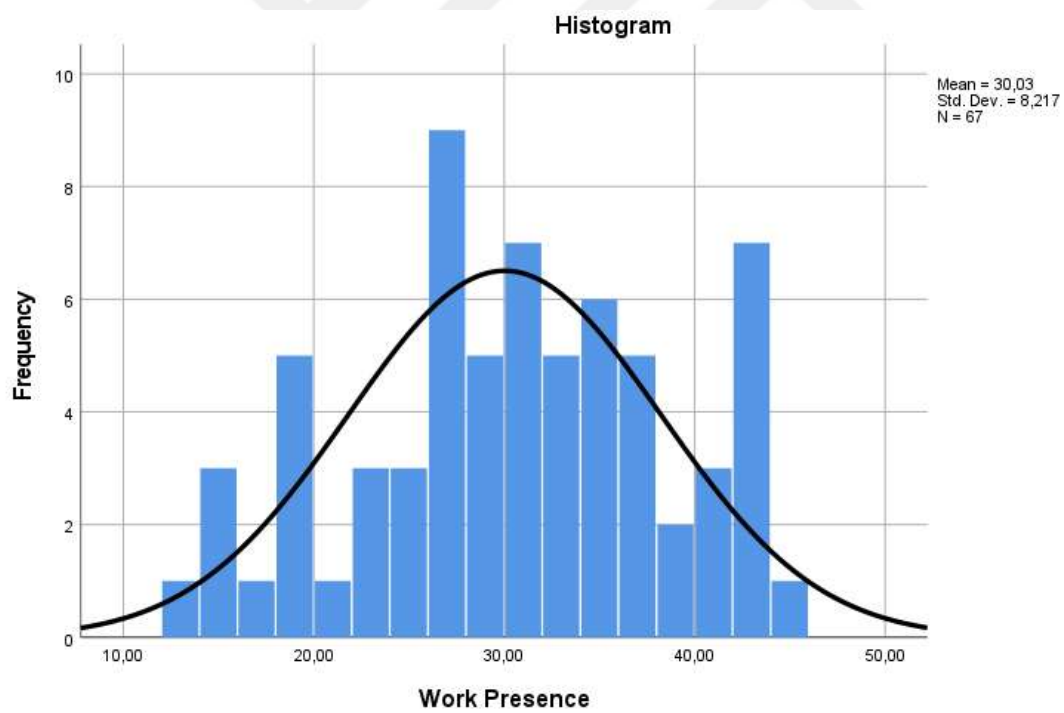


Figure 4.29 Histogram of Work Presence scale.

Table 4.5 Item-Total Statistics for Work Presence Scale.

Item-Total Statistics for Work Presence					
Evden çalışırken, (1,2,3: İş hayatının...)	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Corr.	Squared Multiple Corr.	Cronbach's Alpha if Item Deleted
1 - ...bir parçası olduğumu hissediyorum.	25.76	50.033	0.755	0.736	0.785
2 - ...gelişme, durum ve olaylarının hemen farkında olabiliyorum.	26.04	48.074	0.791	0.896	0.777
3 - ...gelişme, durum ve olaylarında, gerektiğinde hemen dahil olabiliyor veya harekete geçebiliyorum.]	26.01	48.5	0.756	0.874	0.782
4 - ... zihnen tamamen işte oluyorum.]	25.99	50.318	0.762	0.67	0.785
5 - ... çalışan kişiliğime/rolüme giriyor ve kendiliğimden buna uygun bir şekilde düşünüyör ve davranıyorum.]	25.79	51.319	0.751	0.726	0.788
6 - ... tamamen iş hayatıma ayrılmış bir ortamda olduğumu hissediyorum.]	26.48	48.799	0.672	0.737	0.794
7 - ... tamamen iş hayatıma ayrılmış bir zaman diliminde olduğumu hissediyorum.]	26.18	47.846	0.757	0.772	0.781
8 - ... ev (hayatım) ile de ilgili her gelişme, durum ve olayın farkında oluyorum.]	27.96	78.649	-0.505	0.353	0.926

Table 4.6 Item-Total Statistics for Work Presence Scale. Redundant items were removed.

Item-Total Statistics for Work Presence					
Evden çalışırken, (1,2,3: İş hayatının...)	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Corr.	Squared Multiple Corr.	Cronbach's Alpha if Item Deleted
1 - ...bir parçası olduğumu hissediyorum.	23.69	59.188	0.784	0.731	0.913
2 - ...gelişme, durum ve olaylarının hemen farkında olabiliyorum.	23.97	57.423	0.8	0.896	0.911
3 - ...gelişme, durum ve olaylarında, gerektiğinde hemen dahil olabiliyor veya harekete geçebiliyorum.]	23.94	57.845	0.767	0.874	0.915
4 - ... zihnen tamamen işte oluyorum.]	23.91	59.628	0.783	0.67	0.913
5 - ... çalışan kişiliğime/rolüme giriyor ve kendiliğimden buna uygun bir şekilde düşünüyör ve davranıyorum.]	23.72	60.206	0.802	0.692	0.912
6 - ... tamamen iş hayatıma ayrılmış bir ortamda olduğumu hissediyorum.]	24.4	57.911	0.695	0.73	0.923
7 - ... tamamen iş hayatıma ayrılmış bir zaman diliminde olduğumu hissediyorum.]	24.1	57.277	0.761	0.765	0.915

Table 4.7 Item-Total Statistics for Job Involvement Scale.

Item-Total Statistics for Job Involvement					
	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Squared Multiple Correlation	Cronbach's Alpha if Item Deleted
1-Başıma gelen en önemli şeyler işimle ilgilidir.	30.39	41.453	0.426	0.337	0.707
2-Bana göre, işim kim olduğumun sadece küçük bir kısmıdır.	30.13	52.482	-0.282	0.298	0.796
3-İşimle kişisel olarak çok ilgiliyim.	29.63	40.389	0.485	0.642	0.698
4-Her anımda, her lokmamda, her nefesimde işimle yaşıyorum.	31.33	35.678	0.705	0.685	0.657
5-İlgi alanlarımın çoğu işimle ilgilidir.	30.76	37.73	0.545	0.541	0.685
6-İşimle aramda kopması çok zor olan çok güçlü bağlarım var.	30.6	35.759	0.695	0.614	0.659
7-Genellikle kendimi işimden kopmuş/kopuk hissedirim.	31.49	53.011	-0.295	0.391	0.808
8-Kişisel yaşam hedeflerimin çoğu iş odaklıdır.	30.81	37.068	0.587	0.595	0.678
9-İşimi varlığımın merkezine koyarım.	31.49	36.617	0.68	0.68	0.664
10-Çoğu zaman kendimi tam anlamıyla işime vermeyi severim.	29.78	39.116	0.559	0.517	0.687

Table 4.8 Item-Total Statistics for Job Involvement Scale. Redundant items were removed.

Item-Total Statistics for Job Involvement					
	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Squared Multiple Correlation	Cronbach's Alpha if Item Deleted
1-Başıma gelen en önemli şeyler işimle ilgilidir.	23.93	48.888	0.4	0.265	0.874
3-İşimle kişisel olarak çok ilgiliyim.	23.16	45.867	0.585	0.566	0.856
4-Her anımda, her lokmamda, her nefesimde işimle yaşıyorum.	24.87	41.724	0.738	0.655	0.839
5-İlgi alanlarımın çoğu işimle ilgilidir.	24.3	44.364	0.552	0.506	0.861
6-İşimle aramda kopması çok zor olan çok güçlü bağlarım var.	24.13	41.451	0.752	0.612	0.837
8-Kişisel yaşam hedeflerimin çoğu iş odaklıdır.	24.34	42.502	0.664	0.567	0.848
9-İşimi varlığımın merkezine koyarım.	25.03	43.151	0.687	0.639	0.845
10-Çoğu zaman kendimi tam anlamıyla işime vermeyi severim.	23.31	45.491	0.591	0.508	0.856

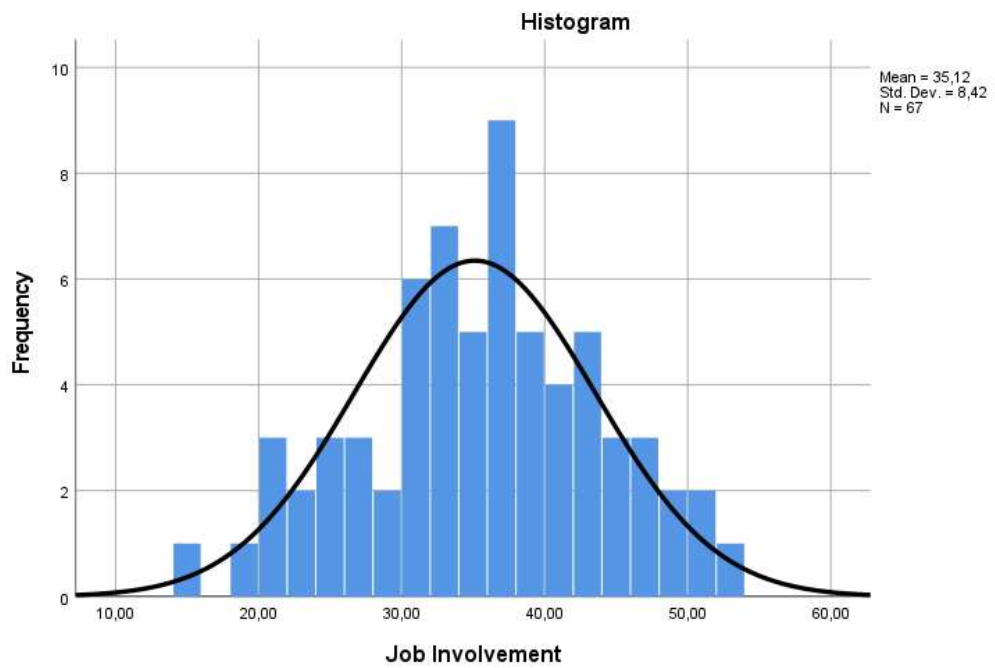


Figure 4.30 Histogram of Job Involvement scale.

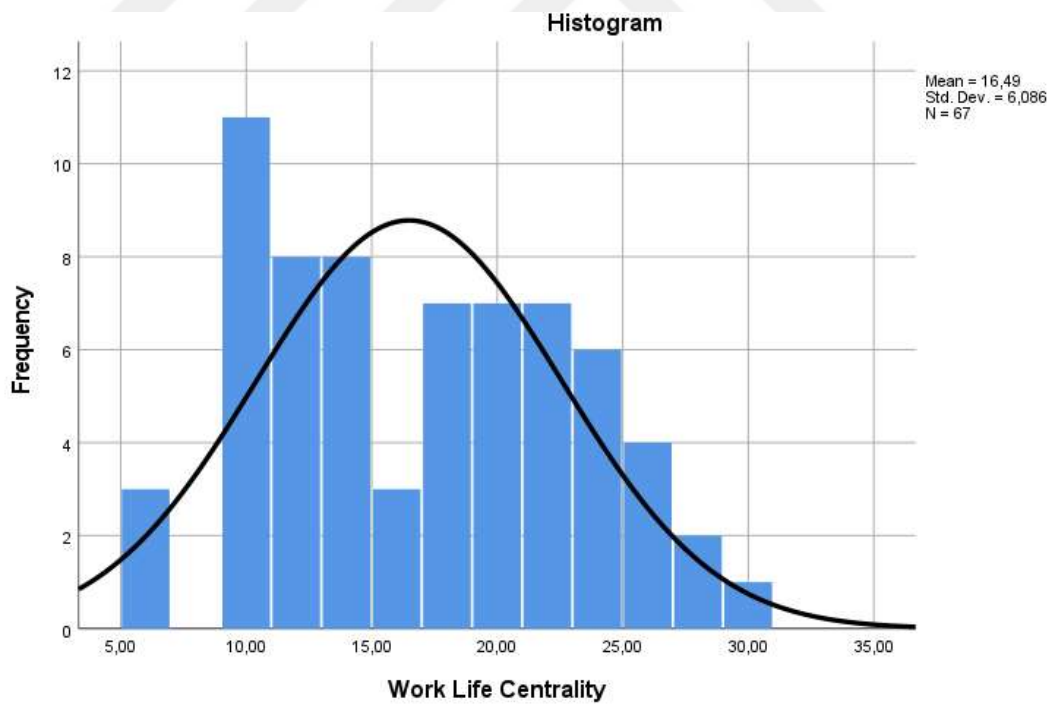


Figure 4.31 Histogram of Work Life Centrality scale.

Table 4.9 Item-Total Statistics for Work Life Centrality Scale.

Item-Total Statistics for Work Life Centrality					
	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Corr.	Squared Multiple Corr.	Cronbach's Alpha if Item Deleted
19-Hayatta gerçekleşen en önemli şeyler iş ile ilgilidir.	14.97	18.151	0.627	0.473	0.63
20-İş, insanların zamanlarının çoğunda meşgul olmaları gereken bir şeydir.	14.39	18.09	0.508	0.308	0.659
21-İş, insanın hayatının sadece küçük bir kısmı olmalıdır.	13.58	29.58	-0.403	0.262	0.887
22-İş, yaşamın merkezi olarak görülmelidir./merkezine konulmalıdır.	15.12	15.834	0.771	0.782	0.571
23-Bana göre, bireyin kişisel yaşam hedefleri iş odaklı olmalıdır.	14.87	15.724	0.738	0.711	0.578
24-Hayat ancak insan kendini tam anlamıyla işe verdiği zaman yaşamaya değerdir.	15.43	15.158	0.771	0.695	0.563

Table 4.10 Item-Total Statistics for Work Life Centrality Scale. Redundant items were removed.

Item-Total Statistics for Work Life Centrality					
	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Corr.	Squared Multiple Corr.	Cronbach's Alpha if Item Deleted
19-Hayatta gerçekleşen en önemli şeyler iş ile ilgilidir.	10.88	21.198	0.673	0.473	0.875
20-İş, insanların zamanlarının çoğunda meşgul olmaları gereken bir şeydir.	10.3	21.182	0.546	0.307	0.903
22-İş, yaşamın merkezi olarak görülmelidir./merkezine konulmalıdır.	11.03	18.332	0.853	0.763	0.833
23-Bana göre, bireyin kişisel yaşam hedefleri iş odaklı olmalıdır.	10.78	18.298	0.809	0.703	0.843
24-Hayat ancak insan kendini tam anlamıyla işe verdiği zaman yaşamaya değerdir.	11.34	18.32	0.773	0.672	0.852

Table 4.11 Item-Total Statistics for Home Involvement Scale.

Item-Total Statistics for Home Involvement					
	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Corr.	Squared Multiple Corr.	Cronbach's Alpha if Item Deleted
1-Başıma gelen en önemli şeyler evimle ilgilidir.	30.55	36.463	0.388	0.379	0.71
2-Bana göre, evim kim olduğumun sadece küçük bir kısmıdır.	31.19	46.977	-0.334	0.211	0.815
3-Evimle kişisel olarak çok ilgiliyim.	30	35.909	0.478	0.566	0.699
4-Her anımda, her lokmamda, her nefesimde evimle yaşarım.	31.19	32.825	0.608	0.53	0.674
5-İlgi alanlarımın çoğu evimle ilgilidir.	31.24	33.124	0.63	0.566	0.673
6-Evimle aramda kopması çok zor olan çok güçlü bağlarım var.	30.85	33.523	0.475	0.457	0.695
7-Genellikle kendimi evimden kopmuş/kopuk hissedirim.	32.55	42.221	-0.046	0.253	0.766
8-Kişisel yaşam hedeflerimin çoğu ev odaklıdır.	31.64	31.567	0.697	0.791	0.658
9-Evimi varlığımın merkezine koyarım.	31.58	30.368	0.651	0.722	0.659
10-Çoğu zaman kendimi tam anlamıyla evime vermeyi severim.	30.97	33.393	0.562	0.589	0.682

Table 4.12 Item-Total Statistics for Home Involvement Scale. Redundant items were removed.

Item-Total Statistics for Home Involvement					
	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Corr.	Squared Multiple Corr.	Cronbach's Alpha if Item Deleted
1-Başıma gelen en önemli şeyler evimle ilgilidir.	25.01	39.712	0.421	0.345	0.854
3-Evimle kişisel olarak çok ilgiliyim.	24.46	38.768	0.544	0.503	0.842
4-Her anımda, her lokmamda, her nefesimde evimle yaşarım.	25.66	36.077	0.626	0.518	0.832
5-İlgi alanlarımın çoğu evimle ilgilidir.	25.7	36.758	0.619	0.559	0.833
6-Evimle aramda kopması çok zor olan çok güçlü bağlarım var.	25.31	36.309	0.527	0.431	0.845
8-Kişisel yaşam hedeflerimin çoğu ev odaklıdır.	26.1	34.519	0.733	0.772	0.819
9-Evimi varlığımın merkezine koyarım.	26.04	33.195	0.689	0.722	0.824
10-Çoğu zaman kendimi tam anlamıyla evime vermeyi severim.	25.43	36.31	0.607	0.523	0.834

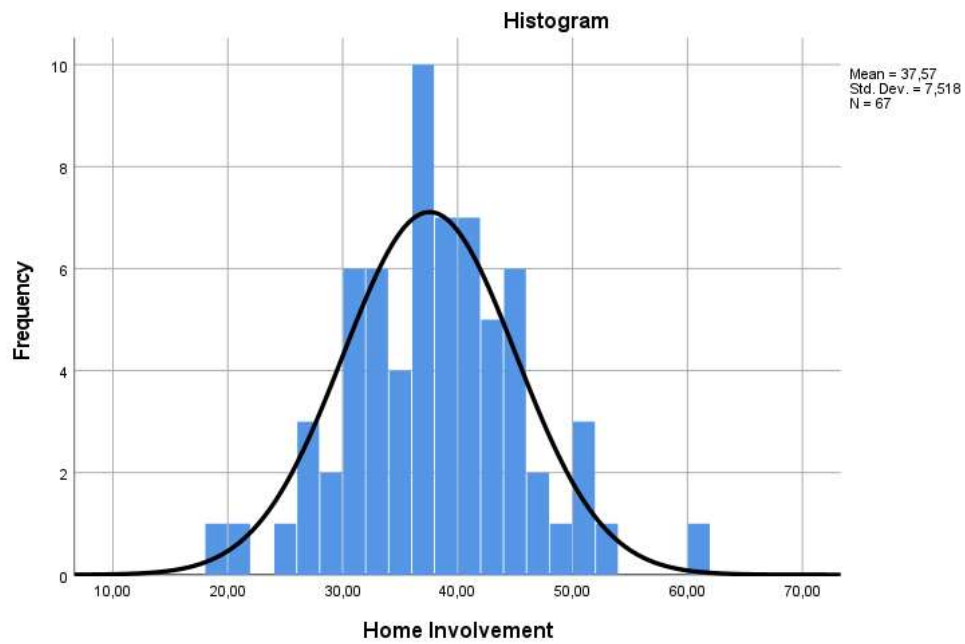


Figure 4.32 Histogram of Home Involvement scale.

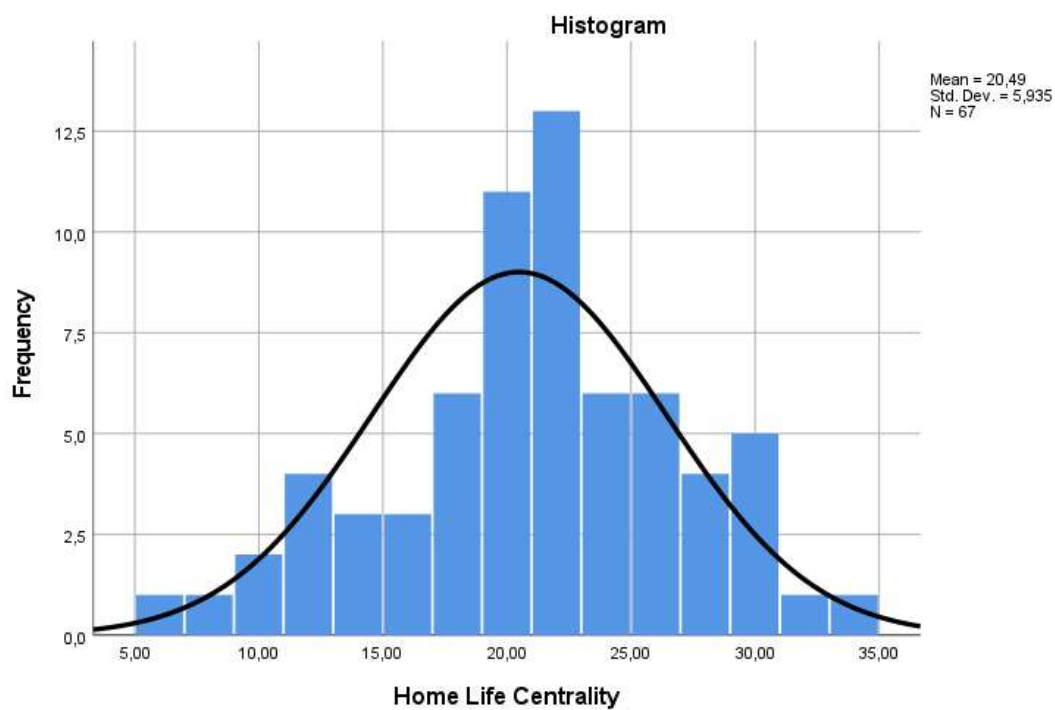


Figure 4.33 Histogram of Home Life Centrality scale.

Table 4.13 Item-Total Statistics for Home Life Centrality Scale.

Item-Total Statistics for Home Life Centrality					
	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Corr.	Squared Multiple Corr.	Cronbach's Alpha if Item Deleted
19-Hayatta gerçekleşen en önemli şeyler ev ile ilgilidir.	16.36	19.9	0.53	0.611	0.729
20-Ev, insanların zamanlarının çoğunda meşgul olmaları gereken bir şeydir.	16.04	19.256	0.648	0.709	0.698
21-Ev, insanın hayatının sadece küçük bir kısmı olmalıdır.	16.64	30.233	-0.27	0.216	0.891
22-Ev, yaşamın merkezine konulmalıdır.	16.42	18.308	0.728	0.646	0.675
23-Bana göre, bireyin kişisel yaşam hedefleri ev odaklı olmalıdır.	16.58	17.429	0.81	0.767	0.65
24-Hayat ancak insan kendini tam anlamıyla eve verdiği zaman yaşamaya değerdir.	16.91	17.416	0.793	0.725	0.654

Table 4.14 Item-Total Statistics for Home Life Centrality Scale. Redundant items were removed.

Item-Total Statistics for Home Life Centrality					
	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Corr.	Squared Multiple Corr.	Cronbach's Alpha if Item Deleted
19-Hayatta gerçekleşen en önemli şeyler ev ile ilgilidir.	13.21	20.865	0.611	0.606	0.895
20-Ev, insanların zamanlarının çoğunda meşgul olmaları gereken bir şeydir.	12.9	20.125	0.744	0.69	0.865
22-Ev, yaşamın merkezine konulmalıdır.	13.27	19.987	0.735	0.646	0.867
23-Bana göre, bireyin kişisel yaşam hedefleri ev odaklı olmalıdır.	13.43	19.067	0.817	0.767	0.848
24-Hayat ancak insan kendini tam anlamıyla eve verdiği zaman yaşamaya değerdir.	13.76	19.336	0.77	0.717	0.859

Table 4.15 All correlations between measured constructs.

All Correlations		HI	PDW	HP	WI	WP	PDH	Jinv	WLC	Hinv	HLC
Home	Pearson Correlation	1	0.016	-0.009	,693**	0.051	0.001	-0.095	-0.051	-0.134	-0.02
	Sig. (2-tailed)		0.898	0.944	0	0.682	0.995	0.444	0.684	0.281	0.874
Psy.Detachment from Work	Pearson Correlation	0.016	1	,391**	,264*	,283*	0.072	-,420**	-,436**	-0.143	-,261*
	Sig. (2-tailed)	0.898		0.001	0.031	0.02	0.564	0	0	0.247	0.033
Home Presence	Pearson Correlation	-0.009	,391**	1	,285*	,595**	-0.058	-0.102	-0.129	-0.094	-,339**
	Sig. (2-tailed)	0.944	0.001		0.02	0	0.641	0.414	0.299	0.45	0.005
Work Immersion	Pearson Correlation	,693**	,264*	,285*	1	,280*	0.123	-0.155	-,269*	-0.075	-0.161
	Sig. (2-tailed)	0	0.031	0.02		0.022	0.321	0.212	0.028	0.549	0.192
Work Presence	Pearson Correlation	0.051	,283*	,595**	,280*	1	,268*	0.099	-0.106	-0.01	-0.109
	Sig. (2-tailed)	0.682	0.02	0	0.022		0.028	0.424	0.392	0.935	0.381
Psy.Detachment from Home	Pearson Correlation	0.001	0.072	-0.058	0.123	,268*	1	,248*	-0.061	-0.102	0.039
	Sig. (2-tailed)	0.995	0.564	0.641	0.321	0.028		0.043	0.626	0.409	0.755
Job Involvement	Pearson Correlation	-0.095	-,420**	-0.102	-0.155	0.099	,248*	1	,637**	,257*	,289*
	Sig. (2-tailed)	0.444	0	0.414	0.212	0.424	0.043		0	0.035	0.018
Work Life Centrality	Pearson Correlation	-0.051	-,436**	-0.129	-,269*	-0.106	-0.061	,637**	1	0.24	,353**
	Sig. (2-tailed)	0.684	0	0.299	0.028	0.392	0.626	0		0.05	0.003
Home Involvement	Pearson Correlation	-0.134	-0.143	-0.094	-0.075	-0.01	-0.102	,257*	0.24	1	,634**
	Sig. (2-tailed)	0.281	0.247	0.45	0.549	0.935	0.409	0.035	0.05		0
Home Life Centrality	Pearson Correlation	-0.02	-,261*	-,339**	-0.161	-0.109	0.039	,289*	,353**	,634**	1
	Sig. (2-tailed)	0.874	0.033	0.005	0.192	0.381	0.755	0.018	0.003	0	

4.3 Discussion

Findings and insights acquired from interview phase provided answers for first research question. Accordingly, teleworkers with different conditions experience telework differently. Personal, interpersonal, temporal, spatial, demographic and background (i.e.: past experiences) aspects are all involved in and can change the experience. Thus, no condition or actor can be evaluated by its own or by a generalized essential quality of it to reveal causal relationships in the experience. All actors (e.g. spaces, objects, humans, social rules, etc.) are constituents in a mediated experience of teleworking from home, as they can acquire new behaviors based on the context they are involved in. This finding of the study aligns with the content pragmatism of postphenomenology.

Findings also revealed some patterns in teleworkers' experiences that involve particular combinations of some factors. For example, in cases of interview participants, findings suggest that the zoning strategy (e.g. dividing living room as work zone and living zone) can help people make mental and behavioral differences between different zones (e.g. P3, P7, P8), although individuals' experiences of such impact are not exactly same for all, and it changes according to personal, interpersonal and/or work-related conditions and so on. In this sense, one can expect that having a room dominantly designated for work would provide proper conditions for a similar impact and/or an advantage in teleworkers' life. Parallel to this idea, among participants who are obliged to work and live in same environment, P5, P6 and P9 expressed their need of such room, while P1 and P4 mentioned that they are using another room for particular situations. On the other hand, P3 expressed her need to be in an open-plan space accessible by her child, while the case of P2 revealed that having a separate work room might not help at all if the individual has a different relation with that room and the work so that she is not continuously working and not continuously being in that room. Findings also revealed that working in main living space can cause permanent liminality (P3, P6 and P9). However, if that space is not identified with rigid and multiple (habitual and/or emotional etc.) bonds by the teleworker, or if it is not highly immersive regarding both lifeworlds it might not cause such a problem, as

in case of P4. Findings also revealed that having kids is a crucial factor in terms of TFH experience as in cases of P3, P4, P6 and P7, although being the main caretaker, type of relationship between teleworker and the kid, kid's expectation of interaction type and level, or the job's and the organizational culture's tolerance about parental circumstances can make great differences on teleworkers' decisions and experiences.

In terms of the relation among spatial immersion, liminality and the work/home balance, findings provide patterns which can explain the relation between immersion and liminality. Study also provides patterns of problems and solutions (related to immersion and liminality) that can affect work/home balance. Firstly, one defined space can simultaneously accommodate two types of immersive qualities regarding different lifeworlds with different contexts or networks, like work life and home life. Based on findings and insights, relation among spatial immersion, liminality and the work/home balance can be elaborated and exemplified with a space which accommodates two lifeworlds: X and Y (X is work when Y is home; X is home when Y is work). If X-immersion is by far more dominant than the other (Y) in an environment, it means that this environment has intense and abundant stimuli which can provide the individual with a motivation to prioritize X over Y and to act accordingly. If the issued subject of immersion (mutual member of both lifeworlds) is in a dominantly X-immersive environment while being supposed to prioritize Y, the environment can provide intrusive or distracting motivations affecting the individual's work-home balance. If immersive qualities regarding two lifeworlds are both low or not existent in a particular environment, this environment can constitute a proper liminal space between an X-immersive and a Y-immersive environment.

If immersive qualities regarding two lifeworlds are both high in a particular environment, it means that this environment has intense and abundant stimuli which can provide the individual with distinct or even opposing motivations to prioritize X and Y and to act accordingly at the same time, possibly resulting in confusion, frustration, procrastination and/or change of usual feelings and motivation about both X and Y contexts. This last one exemplifies the phenomenon called "permanent liminality" where the individual cannot fully adapt to or prioritize either X or Y, possibly ending up with lowered motivation for one or both. If the individual

teleworker does not have any proper liminal space and is obliged to involve in both work lifeworld and home lifeworld during work time and off-work time in the same environment causing permanent liminality, this situation constitutes another temporal condition. Such constant exposure can increase the intensity and impacts of permanent liminality. In such a case, the individual teleworker might utilize a distinct environment (e.g. street, park, café, gym etc.) which can serve as a liminal space between work and home in order to improve work-home balance. Experience of such liminal space can be more effective by the help of various aspects, such as more frequent or longer time of exposure to this liminal space, or interaction with different people and involvement in different activities in this liminal space.

Indubitably, spatial qualities are not the only resource for creating an immersive environment. VR literature also considers social presence, co-presence and coherence as important aspects for achieving presence. This study displayed that these are also important for experience of TFH environments. However, findings also revealed some differences as well as similarities between TFH environments issued in the study and VR environments as represented in literature. Accordingly, co-presence and social presence cannot be investigated without considering spatial capabilities and limitations in TFH context. Having a household member or a guest around as company or being able to communicate with them while teleworking from home requires certain spatial capabilities of physical space at home. Intuitive and real-time communication with co-workers requires certain spatial capabilities and limitations provided by online communication software, headphones and microphone, and physical space at home. Therefore, all humans, electronic devices, software and physical space, as actors, become constituents of mediated TFH experience; and spatial capabilities and limitations emerge as spatial immersive qualities for the subject in certain context. In TFH, coherence cannot be investigated without considering spatial capabilities and limitations too. For example, permanent liminality elaborated above is related to incoherence among immersive qualities regarding multiple lifeworlds in a single environment.

Most important differences between TFH environments and traditional VR environments might be the initial purpose and medium of created environments. In

terms of traditional VR environments, features of environment are determined based on the project. For example, it can aim to make the user feel as if the user is a knight in an imaginary castle. The VR system as a whole (both hardware and software) is constructed accordingly. System has multiple, realistic and coherent interaction methods and interactive contents and it provides very limited interaction with the real world while using the issued VR system, so that users would psychologically detach themselves from the real environment and even their real identity to an extent. They start to feel as if they are actually in that specific castle, and they start to act (to an extent) as if they are a knight in that castle. Although, presence in VR is modified by personal differences, main purpose of the final product is constant for every user. Thus, immersive qualities of the said system are designed accordingly, so that every user has identical set of interaction methods and identical content. Identical interaction methods require identical capabilities and limitations of given VR system. However, in real world situations, especially in TFH context of this era, targeted environment is different for every teleworker, even for employees of the same organization. Essentially, place illusion is the illusion of feeling of “being there”, and “there” is specifically preidentified in a VR system. However, what the word “there” refers to differs for every teleworker’s situation. Similarly, in most cases, definition of the presence in TFH context exceeds the presence in VR in terms of complexity.

Findings showed that the main reason for starting TFH is not always reducing commute time and expenses. One of the major reasons for employees doing TFH is to be able to practice a new kind of working and living experience. In many cases teleworkers do not want to feel as if they are completely in their actual office all the time. For example, they want to be able to observe their children, or spend more time and communicate with family members, or benefit from other home life privileges while actually working, as much as their job allows. These individuals try to reconfigure their spatial resources, habits and rules to create their unique environments with different immersive settings specifically tailored for their unique needs. Therefore, targeted environment and targeted type of presence and thus required immersive qualities are different for every teleworker. These can even change over time for a single teleworker with an irregular agenda of tasks.

People cannot change their work context or social rules of their work and/or home life whenever they want. Sometimes they can bend these a little or sometimes they become obliged to brake these rules forcefully and maybe harmfully in order to be able to reshape these actor-networks to fit into their “home” which, in this case, constitutes a technological container that they need to adapt accordingly. However, if the house is not flexible and is highly restrictive, it makes the situation more challenging for people living and working in the house. People working from home needs houses in which they can both physically and mentally group, connect and separate different parts of the whole space, so that they can create personally tailored immersive settings (i.e. spatial configurations for changing use case scenarios) while being able to have crucial spatial requirements they identified for their situation. Such as, being able to separate home and workspace while being able to have proper access to core facilities of the house in both settings (e.g.: kitchen, toilet, or children’s play-space in the house).

Literature provides some criteria of architectural flexibility. These criteria coincide with new requirements brought by WFH. DeParis et al.’s (2022) study on architectural flexibility and adaptability is a good source for such criteria, with their detailed and comprehensive review of related literature. Revisiting the interview analyses, one encounters matches with some of the criteria suggested by DeParis et al. (2022) as a part of a problem or a solution in various situations experienced by participants. Most prominent ones are geometric shape and dimensions, typology and size of circulation and spaces distribution, proportion and hierarchy between spaces, number and location of partitions containing or has access to facilities, partition type, the proportion of partition with window, modularity, indeterminate spaces and multifunctional spaces.

Indeed, flexibility is required more than ever. But of course, this does not mean that we need to change all the buildings at once. But it is clear that we need new flexible architectural typologies and technologies to utilize in big cities where large companies adopt hybrid WFH modalities. Because this study also supports the view that working-from-home became a part of our lives after the pandemic; and especially large companies adopt it as a hybrid concept. Even some large companies which have adopted full time WFH modality, mandate their workers to live in same city for different reasons. For example, some companies provide their teleworkers with

specially tailored computers which workers are not allowed to move out of their house. At least, new or revised residential areas where such hybrid workers tend to live can be identified and designed with this flexibility issue in mind. Methods provided in this thesis can be used to further understand the problems and needs of particular demographics. Indubitably, such transformation cannot be limited to design of singular housing units. Other changing requirements of such neighborhoods can be investigated, and these neighborhoods can be planned accordingly. For example, more green spaces, cafes, sports centers and co-working hubs in various scales can help teleworkers improve their work-home balance by providing well defined immersive and liminal spaces.

Although it was out of scope of this study, co-working spaces are also important built environments to be investigated in terms of research of spatial immersive qualities and its impacts on teleworkers. With developing ICTs, built environment and organizational models in the last decade, number of co-working spaces increased all around the world. These hubs provide different options of workspaces like hot desks, dedicated desks and private offices. Some of these embrace the Silicon Valley startup culture with office designs contrasting traditional office ambiance, providing spaces like comfortable sitting areas, lunch buffets and game rooms. In general, co-working hubs can provide a wide range of amenities like proper office furnishings and other supplies, conference rooms, gym, 24/7 access, childcare services or even on-site living accommodations. According to recent studies (Howell, 2022), co-working spaces can provide efficiency and flexibility in terms of space for especially startup entrepreneurs while causing distractions and loss of productivity for employees in a crowded building shared by several companies. These hubs are also prolific for networking and having a community of various members who can be consulted. However, compared to employees, founders are more likely to feel such sense of community. In terms of coworking hubs, impacts of different spatial designs and use case scenarios on employees from different types of organizations can contribute both in this area of research and further legislation and planning of built environment. Appropriate design and use of such hubs might provide immersive workspaces and better work-home balance for teleworkers with limited spatial resources. Furthermore, essential

responsibilities about expenses and problems in workplace during work hours can be given back to organizations.

Another non-traditional workplace design concept trending in the last decade is “playful” office design where organizations implement various spaces with activities involving play and fun factors in workplace in order to increase employee creativity, motivation and dedication (Alexandersson and Kalonaityte, 2018). Playfulness factor can be achieved via traditional architectural elements or playable facilities like ping-pong tables or video game consoles. Although this factor is considered as partial indicator of a healthy workplace (Georganta and Montgomery, 2018), its negative impacts are also criticized by researchers (Everett, 2011; Georganta and Montgomery, 2016) especially considering employees’ individual differences on how they perceive the act or theme of “play” in workplace. Such implementations in the workplace which are mostly popularized and experimented with by big technology companies are not limited to playfulness theme. Cozy home-like environments, beach or vacation themed environments are also some examples of such workplace implementations. Deriving from the findings of this thesis study, investigation of human-space relations, immersion and liminality in such workplaces can contribute to the research area. Introducing new themes with new actors and networks into an organizational environment can have varying impacts for different individuals, occupations, organizational cultures and so on.

As a side note, findings of this study support that space does not impose certain power relations but allows certain connections, hierarchies and compositions while constraining or inhibiting others. Therefore, when we need to install two different lifeworlds into one non-flexible space, we need to make decisions and prioritize certain interactions, identities, networks or social rules of a lifeworld over ones of other lifeworld. Otherwise, we cannot prioritize one context over other but also cannot create an effective space for none of the contexts. Flexible spaces could mitigate the necessity of such priority decisions and unnecessary occurrence of power conflicts between two lifeworlds to an extent. However, from a critical perspective, what individuals teleworking from home are obliged to do in order to adapt to circumstances of TFH, and the capability and resources of these individuals to mitigate such

difficulties and conflicts or to start teleworking from home at all are related to social class as well. Recent studies provide evidence that access to ICTs and efficient digital infrastructure is a crucial factor making remote work a privilege for particular households and individuals (Wang, 2021), and that social class disparities in access to work are observed in remote work context too (Martindale and Lehdonvirta, 2023). Furthermore, findings of this thesis study reveal the aspect of architectural space in this relation between the experience of TFH and social class. For example, a spacious and flexible house, an extra room with access to all core facilities and proper daylight, inner and outer walls with proper sound insulation or a quiet neighborhood with easy access to recreational environments are important elements to efficiently accommodate both work and home life at home while keeping a healthy work-home balance. However, possession of such spatial resources are privileges that are not accessible by members of all social classes. On the other hand, level of requirement of such spatial resources cannot be related to social class or level of income. For example, a call center teleworker with several kids could need such spatial resources much more than an engineer teleworker living alone while engineer has access to much more resources. Overlooking this issue can deepen the class divide in various aspects affecting not just teleworker individuals but also their households. Although spatial resources are important in experience of TFH, it cannot be investigated without considering other factors. Findings also displayed that experience of TFH is affected by other factors like past experiences, control over work hours, being responsible of chores and capability to afford a cleaner or a babysitter which all can be related to social class as well. Besides that, being responsible for chores and childcare can be very crucial factors in terms of experience and impacts of TFH, and such tasks still remain the responsibility of women in most cultures around the world. Governmental and organizational incentive programs for women to telework from home seems like creating opportunities for women. However, without proper research and regulations prioritizing human rights, uneducated decisions overlooking dynamics of society and already existing inequalities could only reproduce or even deepen gender inequalities.

4.4 Research Limitations and Further Studies

Survey was conducted by voluntary participation of 67 adults teleworking from home as an employee of any organization. Reliabilities of scales for each construct and one-to-one relations between constructs were analyzed. However, more comprehensive analysis on relations among several or more factors could not be made because of limited data pool. Lack of participation has two major reasons. First, survey takes long time to fill and includes many items that require extra mental effort for thinking about daily practices and feelings. Thus, potential participants can give up midway, or do not even start. Another reason is that survey was conducted by voluntary participation. Offering incentives for survey completion could increase participation. Including lesser number of scales in the survey could also increase participation. However, it should be noted that projecting a comprehensive model in the scope of this research requires the analysis of intertwined relationships among issued constructs. For further studies, larger data pool should be reached using the presented survey.

Interview and survey studies were conducted with Turkish people living in Türkiye. Therefore, survey results displaying relations between constructs cannot be generalized to other geographies and cultures. However, study provided promising results in terms of reliability of invented and adapted scales. These scales can be further tested, developed and utilized in future studies. The interview study does not cover all types of organizational and household relations, architectural typologies, personal differences and occupations. However, results provide evidence that co-occurrence of particular conditions can lead to similar results in experiences of individuals practicing TFH and that architectural qualities are important factors in these experiences. Nevertheless, such research investigating human-technology experience can be only developed further by researchers with different perspectives revealing and addressing different perspectives of other people including who are marginalized. Therefore, collaboration between researchers investigating the issue in other geographies and cultures is utterly important for future studies.

Another topic that should be discussed here is inclusive design. Literature provides studies about the relation between space and individuals with ADHD or autism, as

these individuals' attention to and tolerance of environmental factors differs from other people. To be able to talk about proper inclusive design especially in terms of the scope of this study, we need to investigate such relations with environment considering such features of ADHD and autism within their large spectrum. In addition to studies focusing extreme ends of these spectrums, we should extend the research utilizing the findings of such studies and further investigating the impacts of environmental factors (e.g. audial or visual distractions) on all types of individuals. Such research can provide the ground for better and more inclusive architecture for houses, workplaces and schools in the future.



CHAPTER 5

CONCLUSION

This study aimed to investigate the phenomena of immersion and liminality within architectural spaces accommodating different lifestyles that are always changing either by their nature or the integration of ever developing technologies. Study focused on the context of teleworking from home (TFH) as it is most prominent example of such changing relation of space and lifestyles with its complexity, problematization and the rapid change that it spread by in an unprepared era.

Postphenomenological perspective was adopted for the investigation. Accordingly, field study consisted of two phases: interview and survey. In the interview phase, interviews were conducted with voluntary participation of nine Turkish individuals teleworking from home as a member of an organization. Interpretative phenomenological analysis (IPA) method was adopted to gather rich and comprehensive qualitative data about participants' TFH experiences. Variational cross-examination method was used to investigate multistabilities and dominant stabilities of technologies (furniture, electronic devices, digital applications, architectural elements etc.) from the perspective of individual participants. The actor-network theory was utilized; and actor-network diagrams were created to visually represent and to better familiarize and understand particular actor-networks of individuals in the issued context of their work and home lifeworlds. In survey phase, a survey was constructed (in Turkish language) based on insights and projections acquired from the interview phase. The survey was conducted by participation of 67 Turkish volunteers teleworking from home as a member of an organization. Statistical analyses of the survey data provided further quantitative results about the issues investigated in this thesis.

Findings of the study provided answers to main research questions. Accordingly, findings displayed some patterns in individuals' experience of TFH in similar conditions. It was also displayed that there is a wide range of factors and combinations of factors which can modify individuals' experience of TFH. These factors can be personal like intrinsic and extrinsic motivations; interpersonal like types of interaction between household members or colleagues; temporal like day and night shifts or flexibility to choose your own work hours; spatial like heating, lighting, air quality or having a restrictive physical space; or demographic and background-related conditions like being experienced or inexperienced in different work and home conditions, or possessing more or less resources or responsibilities of any factors mentioned above.

In terms of the experience of spatial immersion and liminality phenomena in the newly emerged space, findings displayed that the intensity of immersion and liminality differs according to individuals' relations with and identification of all the actors and networks in this new space, such as real and virtual objects, social rules, responsibilities, people and so on. Although this new space does not consist of only a physical merger, study provided findings about major architectural qualities that affect the experience. Besides the qualities like ergonomics, lighting and air conditioning, most critical and comprehensive architectural quality is the limitations and capabilities of built space in terms of responding to changing user conditions and needs, in other words, flexibility of space.

Overall findings of this study provided evidence to support the hypothesis that employees' work-home balance is affected by spatial immersion and liminality in the context of organizational TFH. This study provided evidence that supports the existence of the spatial immersion phenomena in real life. However, more research is required to objectively and comprehensively measure immersion and its impacts to be able to generalize such relationships, because its experience differs for different people and situations. On the other hand, this study showed that postphenomenological research methods can be used to understand spatial needs and experiences of people living within a defined era, culture and context. This supports the idea that architectural research and postphenomenological research (and the philosophy of technology) can nurture each other. Additionally, architecture students can benefit from

postphenomenological methods and the philosophy of technology for understanding contemporary humans' spatial needs, and the accelerating development and fluidity of various lifestyles intervened by continuous development of new ICTs.

In conclusion, this thesis study brings into architectural discussion the concept of immersion and immersive qualities of space as elements involved in individuals' experiences within built environment. Considering traditional architectural space as a technology from a postphenomenological perspective, this thesis provides evidence that architectural space can have impacts on human psychology and behavior based on the context and personal differences. It also constitutes an example of resultful utilization of postphenomenological methods in architectural research. Finally, in terms of teleworking from home context, this thesis contributes to the critical multidisciplinary research area of architecture, psychology, organization and virtual reality, by providing an accumulation of knowledge on a useful research methodology, on possible relationships between architectural space and TFH experience and on possible impacts on individuals. Hopefully, this knowledge can be utilized by teleworkers, organizations, lawmakers and architects in an inclusive manner that respects human rights.

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APPENDIX A

INTERVIEW QUESTIONS

1. Yaş
2. Eğitim durumu
3. Medeni hal
4. Kimlerle yaşıyorsun?
5. Ne kadar süredir bu evde/bu düzende yaşıyorsun?
6. Bu ev öncesinde de bu tip bir düzende mi yaşıyordun? Ne kadar süre?
7. Yaşam biçimi olarak nasıl düzenlerde yaşadın?
8. Plan tipi olarak nasıl evlerde yaşadın daha önce?
9. Ne iş yapıyorsun? Nerede çalışıyorsun?
10. Tam olarak iş tanımın nedir? Pratikte ne işler/görevler yapıyorsun? (Rapor, analiz, toplantı, müşteri iletişimi, vs.)
11. Ne kadar süredir bu organizasyonda çalışıyorsun?
12. Ne kadar süredir bu mesleği yapıyorsun?
13. Çoğunlukla yalnız mı çalışıyorsun? Yoksa grup çalışmaları mı yapıyorsunuz?
14. Genelde yalnız çalışmayı mı yoksa grup çalışmalarını mı daha çok seviyorsun?
15. Daha önce nasıl işlerde çalıştın? Hangi görevlerde? Nasıl organizasyonlarda?
16. Ne sıklıkla evden çalışıyorsun?
17. Ne kadar süredir evden çalışıyorsun?
18. Genel mesai saatlerin neler?
19. Evden çalışırken mesai saatlerin nasıl?
20. Daha önce çalıştığın işlerde mesai saatlerin nasıldı?
21. Sana göre nasıl mesai saatleri daha iyi olurdu?
22. İşyerinde çalıştığın mekân nasıl?
23. Daha önce çalıştığın mekanlar nasıldı?
24. İşyerinde çalışma mekanıyla ilgili tercihlerin nelerdir?
25. Mekânsal ihtiyaçlarını ve tercihlerini düşününce, bu evin kullanım biçiminden memnun musun? farklı bir düzen ister miydin?
26. Mekânsal ihtiyaçlarını ve tercihlerini düşününce, hangi yaşam biçimi daha çekici geliyor? (Yalnız/kalabalık, aile/öğrenci evi...)
27. Misafir konusunda tercihlerin nelerdir?
28. Ev ahalisiyle sosyalleşmeyi sever misin? Ne sıklıkla iletişim kurarsın?
29. Evden çalışırken nerede çalışıyorsun? Belirli bir yer mi? Neden orası?
30. Çalıştığın odanın başka bir kullanım amacı var mı?
31. Çalışırken odayı başkalarıyla paylaşıyor musun?
32. Çalışma alanının evin geri kalanına nasıl bağlanıyor? (Fiziksel olarak)
33. Çalıştığın odanın bağlı olduğu veya bitişigindeki odaların kullanım biçimi nasıl?
34. Çalıştığın yerde, ne tarafa dönük oturuyorsun? Özel bir sebebi var mı?

35. Çalışırken, etrafına neler görüyorsun? (Program ve uygulamalar dahil)
36. Çalıştığın odada ve alanda, çalıştığın ve çalışmadığın saatlerde değişiklikler yapıyor musun?
37. İşle ilgili eşyaların her zaman çalışma alanında mı duruyor?
38. Çalıştığın odayı/alanı, çalışmadığın saatlerde başka amaçlarla kullanıyor musun?
39. Evde mesaiye başlarken veya bitirirken yaptığın alışkanlıkların var mıdır?
40. Çalışırken, evin içinden/dışından sesler duyuyor musun? Rahatsız ediyor mu?
41. Çalışırken, evin içinde veya dışında seni rahatsız eden veya dikkatini dağıtan şeyler görüyor musun?
42. Çalışırken, iş-dışı mekanlar/alanlar, uygulamalar ve eşyalarınız; erişilebilir, görülebilir, duyulabilir veya fark edilebilir oluyor mu?
43. Çalışırken, çalışmanı bölmeni gerektiren iş dışı sorumluluklar, yapman gereken işler çıkıyor mu?
44. Molalarını nerede ve ne yaparak geçiriyorsun? Kısa molalar ve öğle arası.
45. Öğle yemeğini kendin mi pişiriyorsun? Ne zaman?
46. Molalarından ve öğle arasından sonra kendini dinlenmiş hissediyor musun?
47. Molalarda kendini daha çok evde gibi mi yoksa işte gibi mi hissediyorsun?
48. Molalarda kimseyle sosyalleşiyor musun? İletişim kuruyor musun? Hangi amaçlarla?
49. Çalışırken, ana çalışma alanın dışında mekanları/alanları kullanıyor musun? Yürüme, ihtiyaç vs.?
50. Mesai saatleri içinde herhangi bir zamanda, herhangi bir işe (rapor, toplantı, analiz vs.) düşünmeden direkt başlayabiliyor musun?
51. Yoksa öncesinde ev içi veya dışında olabilecek durumları kontrol etmen veya dikkate alman gerekiyor mu?
52. Çalışırken, sabit olduğun konumda, etrafında neler görüyorsun?
53. Çalışırken, etrafında gördüğün iş-dışı şeyler hakkında düşünmeye başladığın veya onlarla ilgilendiğin oluyor mu?
54. Çalışırken mekânı kullanım biçimin veya işle ilgili rutinlerin evdeki yaşayan diğer insanları etkiliyor mu?
55. Çalışırken mekânı kullanım biçimin veya işle ilgili rutinlerinden dolayı, ev ahalisinden herhangi bir tepki veya davranış değişikliği gözlemliyor musun?
56. Çalışma şeklinin evdekileri nasıl etkilediği, durumla ilgili onlarda gözlemlediklerin veya ilgili diyalogunuz sana nasıl hissettiriyor?
57. Çalışırken mekânı kullanım biçimin veya işle ilgili rutinlerin ile ilgili, evde yaşayanlarla aranızda konuşulmuş veya konuşulmamış bir anlaşma var mı?
58. Çalışma mekanını/alanını mesai saatleri dışında neler için kullanıyorsun?
59. Mesai dışında evde vakit geçirirken, etrafında işle ilgili şeyler görüyor musun?
60. Çalışma alanının bulunduğu mekânda veya evin diğer mekanlarında vakit geçirirken, kendinizi iş düşünürken buluyor musunuz?
61. Mesai dışında, iş mekânı/alanı/konumu ve eşyalarıyla ilişkiniz nasıl?
62. Mesai dışında, iş mekânı/alanı/konumu, uygulamalar ve eşyalarınız; erişilebilir, görülebilir, duyulabilir veya fark edilebilir oluyor mu?
63. Mesai dışında, işle ilgili şeyleri (obje, eşya, uygulama, vs.) kontrol ederken buluyor musunuz kendinizi? Veya kontrol etme ihtiyacı hissediyor musunuz?
64. Bu alanı kullandığın iş dışı zamanlar, durumlar ve aktiviteleri düşündüğünde, bu kullanımlar başka mekanlarda yapılabilir mi? Sana için farklı hissettirir miydi?

65. Çalışırken bulunduğunuz ortamı nasıl tanımlardınız? Bu ortam size nasıl hissettiriyor?
66. Mesai dışında, çalışırken kullandığınız ortama gittiğinizde nasıl hissediyorsunuz? (Mesai sonrası-öncesi ve Mesai olmayan günlerde)
67. Mesainiz bitince ne yapıyorsunuz? Bulduğunuz odada vakit geçirmeye devam ediyor musunuz? Devam ettiğinizde nasıl hissediyorsunuz?
68. Çalışırken evde gibi hissettiğiniz oluyor mu? Ne sıklıkla, ne zaman?
69. Evde geçirdiğiniz iş-dışı vakitlerde, iş yerinde gibi hissettiğiniz oluyor mu?
70. Mesai (ev) saatlerinde, iş arkadaşlarınızla, alt ve üstlerinizle ne sıklıkla iletişim kuruyorsunuz? Hangi araçları kullanıyorsunuz? Hep işle mi alakalı oluyor?
71. Mesai dışında, iş arkadaşlarınızla, alt ve üstlerinizle ne sıklıkla iletişim kuruyorsunuz? Hangi araçları kullanıyorsunuz? Hep işle mi alakalı oluyor?
72. Çalışırken, diğer çalışanlarla iletişim eksikliği hissediyor musunuz? İşle mi alakalı yoksa iş-dışı iletişim mi?
73. Molalarda, diğer çalışanlarla iletişim eksikliği hissediyor musunuz? İşle mi alakalı yoksa iş-dışı iletişim mi?
74. Çalışırken veya molalarda yalnız hissediyor musunuz?
75. Çalışırken ev ahalisi ile iletişim kuruyor musunuz? Ne sıklıkla, ne amaçla?
76. Molalarda ev ahalisi ile iletişim kuruyor musunuz? Ne sıklıkla, ne amaçla?
77. "Immersion" kelimesi özellikle sanal gerçeklik uygulamalarıyla öne çıkmış bir terimdir. Aynı şekilde oyun oynarken, film veya dizi izlerken, veya roman okurken deneyimleyebileceğimiz bir hisle alakalıdır. Size sunulan bir mekân veya durumun sürükleyiciliğini, sizi sarışını, sizin bir anlık dahi olsa "orada" olduğunuza ikna ediciliğini anlatır. Benzer şekilde, evden çalışırken, bireysel bir çalışma anında veya toplantı anında, bir anlık da olsa evde olduğunuzu unutup kendinizi iş yerinde gibi hissettiğiniz oluyor mu? Veya mesai dışı zamanlarda kendiniz tam olarak evde hissedebiliyor musunuz?
78. "Liminality" terimi bir mekândan diğerine veya sosyal bir durumdan diğerine geçişi ifade etmek için kullanılır. Eşik olarak da ifade edilir. Evden çalışma durumunda, ev ile iş arasında bu tip geçişler yaşadığınız oluyor mu? Nasıl? Bu geçişi yapamadığınız, aynı anda hem evde hem işte hissettiğiniz zamanlar oluyor mu?
79. "Flow" kelimesi bir ruh halini tanımlamak için kullanılır. Bunu deneyimleyen insanların tanımlarına göre, İnsanlar bazen belli bir aktivite sırasında o kadar odaklanırlar ki; ne kendilerinin, ne etraflarının, ne de zamanın nasıl geçtiğinin farkında olmazlar. Fakat aynı zamanda, aktivite sırasında ne yapmaları gerektiğinin, yapabilip-yapamadığının farkında olurlar. Her şeyin kendi kontrolleri altında olduğunu hissederler. Ayrıca sebep veya sonucundan bağımsız olarak, o anda yapmak oldukları şeyden sırf bunu yapmakta oldukları için bir motivasyon hissederler.
80. Mesai saatlerinde işinizi yaparken buna benzer bir ruh haline girdiğiniz oluyor mu? Ne sıklıkla ve ne seviyede?
81. Nerede, Ne zaman, Ne sıklıkla, Nasıl, Ne için kullanıyorsunuz?
82. Kullanım amacını gerçekleştirirken, başka hangi objeleri beraberinde kullanıyorsunuz?
83. Başka kullanım amaçları için objede herhangi bir değişiklik yapıyor musunuz?

84. Bu objeyi neyle bağdaştırıyorsunuz? (Zaman, mekân, durum, kullanım alanı, his, anlam) Aklınıza ilk neler geliyor?
85. Aynı anda veya dönüşümlü başkasıyla beraber kullanıyor musunuz? Başkası nerede, ne zaman, nasıl, ne için kullanıyor? Neden paylaşıyorsunuz?
86. (Orta sehpa, kitaplık, kanepa, masa, vs. üzerindeki objeler grubu için) Genelde bu grup içerisinde bulunan, fakat belirli bir aktivite sırasında veya günün belirli bir zamanında kullandığınız objeler var mı?
87. Bu zamanlar ve aktiviteler haricinde kendini bu objelerle ilgilenirken buluyor musun?
88. Hangi uygulamaları kullanıyorsunuz?
89. Uygulamayı hangi elektronik araçlarda kullanıyorsunuz?
90. Uygulama dosyası kullandığınız aletin arayüzünde nerede duruyor? Mesai içinde ve dışında ulaşılabilirliği nasıl?



APPENDIX B

SUMMARIES OF INTERVIEW TRANSCRIPTIONS

This section presents translated summaries of all the interview transcriptions in an order from first participant to ninth participant. Author aimed to deliver all kinds of information gathered during the interviews, and to translate and summarize in a manner that conveys the true meaning of participants' original responses by avoiding any interpretation. Author paid extra attention to the use of adjectives and adverbs in this following body of text. For example, if the text says, "Participant certainly thinks like that...", it is not an interpretation. Instead, it was delivered as such because participant has actually said something similar to "I certainly think that way." However, it should also be noted that such a summarized translation, by its nature, cannot be considered as absolutely free of any interpretation.

B.1 First Participant (P1)

P1 is a 28-year-old industrial design graduate. He has been working as an interface designer and user experience expert in a large organization in defense industry for the last 2 years and 8 months. He has been living with a friend in a 3+1 apartment in Ankara for the last 1.5 years.

B.1.1 Work Life and Home Life Background

He has been working from home for more than 1 year in total in this job. He works 5 days a week. He and his coworkers have started working full time from home during the Covid-19 pandemic, then they had to commute full time again for a month. Now, they have been working in a hybrid model for the last 6-7 months. Accordingly, he works from home for half of the time, and commutes the other half, such as commuting 3 days for a week and then commuting 2 days for the next week and so on. He works from 07:30 a.m. to 17:00 p.m. As a rule, he has to work 6.5 hours during the core hours from 09:30 a.m. to 17:00 p.m. (with 1 hour lunch break), and he has to work for 2 more hours which he is free to choose mornings or evenings to do it. He prefers starting early so that he can have more time for himself in the evenings.

He has been working for 3 years and 3 months in total. He has had a similar job in a smaller organization (with 12 employees in total) before the current one. However, he used to be the only designer there without any collaboration. He was taking directives from the employer and then sending his finished work to developers after the employer's approval. He was joining one or two meetings every week. His workhour was from 08:30 a.m. to 17:30 p.m. Based on his experiences, he thinks that workhours should be flexible, and completion of tasks should be prioritized in general.

During his commuting days in the current job, he shares a cubicle with 3 other people in an open-plan office with 5 cubicles where everyone can hear others' noise. He does not like open offices due to its distractive features. His department moved several offices and sitting plans. P1 and other designers used to work in close quarters, but now they are separated to work in other offices to be together with people from other departments working on the same project. P1 and his colleagues used to be able to consult each other simultaneously and effortlessly while working, but now they have to do it remotely even in commuting days. Between group work and individual work, he does not have a dominant preference in general. He is fine with collaboration and group work as long as he is working with reliable people.

Current dwelling of P1 is a 3+1 apartment. It was converted from a 2+1 by separating the L shaped living room into a smaller living room and another room which is similar to other rooms in size. He has lived in similar houses (shared by 3 people) in the same neighborhood for 3 years in total. He always had his own room in these as he has now as well. Before these apartments, P1 lived with his mother and father in multiple apartments with varying plans like 3+1, 2+1 and 3+1 with two floors. He has always had his own room in these.

About P1's current apartment, he does not like the fact that he needs to go through the living room to reach kitchen and other rooms. Furthermore, heating and insulation problems of the apartment forces certain use cases because one room is too cold while the other is too hot in winter. In terms of living conditions, he prefers shared houses over family houses because of freedom of choice on arrangement of furnishings and use of space in general. In terms of social conditions at home, he prefers living with fewer people. He considers even living alone, but he also thinks that he might get bored. He occasionally socializes with his home mate every day. He is also a sportsman and spends lots of off-work time outside the apartment. For example, he goes out in the evenings at least half of the week.

B.1.2 Participant's Experience of Two Lifeworlds

In P1's current home, main entrance is a few steps wide and connects to kitchen and living room. He needs to go through the living room to reach the converted room

(designated as work/guest room at first) and a few steps wide balcony on one corner, and to reach a few steps wide corridor on the other corner. This tiny corridor connects his bedroom, his home mate's bedroom, a bathroom and a restroom. He works in his own bedroom in winter because the living room and converted room is cold while his bedroom is heated much better during winter. He has a desk, a monitor, an adjustable office chair, bed and closet in his bedroom. Thus, he also uses this setup on some occasions such as when he needs to join a serious business meeting, or when he could not focus, and he wanted to feel as if it was his office. Besides that, he usually works in the living room. He usually uses his bedroom only for sleeping and changing clothes.

While working in the living room, he uses an armchair and a custom-made wheeled table. He puts his "work" laptop (given by the organization), mouse, "work" notebooks, pens and sometimes tv-remote controller on this table and these take up almost all the space on this table. He sits 1-2 meter away from the television, facing it. While he is working, there are also two other armchairs behind him, a sofa next to him, a television and an open television unit with a video game console and other electronics in it. Next to tv unit, there is a bookcase with a printer and miscellaneous items on its shelves, such as photos, trophies, vitamins, sunglasses, documents, cables and so on.

P1 and his home mate use the living room for things like watching television, having chat or entertaining guests. P1 and his home mate sometimes eat their meal together while watching television. In general, P1 personally uses the living room for eating his meals, watching television and playing video games. Custom-made wheeled table is also used for other purposes like eating on it. He also likes watching television and playing video games or eating his meals while watching television during his breaks, sitting in the same position as he works. He occasionally turns on the television for background music and so on while working. Additionally, the living room is brighter and more spacious than his bedroom and this is another reason why he prefers working in the living room.

P1's job involves designing interface and user experience, testing designs with user employees and observing them, conducting interviews and surveys with user employees and analyzing results. He creates designs based on the needs identified by business analysts. Then presents the designs to business analysts to acquire their approval. Then he passes on the design to developers. Then, he makes the last controls of final product provided by developers. Usually, he and his colleagues are part of two teams simultaneously, the team of designers and a team which is responsible for a certain part of a more comprehensive project. While all designers are working for the task of their own project team, they also need to be in contact with each other so that all their particular designs can be synchronized and have a common design language. Therefore, he says, while he joins meetings with the project team once a day, he joins

3 or 4 meetings with designers' team or sometimes works together with other designers. Designers can collaborate over the phone and an online design tool (Figma) which allow them to see and interact with the same canvas simultaneously at any time. They also use a video conference software for most of the communication between members of the organization. It provides video and audio conferences, secured screen and file sharing, text messages and so on. The organization uses the Agile methodology which is a project management framework. Accordingly, they break projects into multiple (2-3 weeklong) phases, named as sprints. They have daily and weekly meetings and collaboration between varying people working on the project. They also have extra meetings other than the fixed schedule. P1 also joins daily department meetings. Daily meetings are short as 15 minutes long, while weekly meetings are longer as one hour long. He also works together with a few other people once every two or three weeks, which sometimes takes whole day. Besides these, his daily job mostly involves individual work.

While commuting, he arrives at the office at 07:30 a.m., then has his breakfast there. Lunchbreak is at 12:00 p.m. He leaves at 17:00 p.m. On the other hand, while working from home, sometimes he turns on the laptop at 08:00 a.m. if he needs to check anything or sometimes sleep until 09:30 a.m. (the fixed morning meeting). He usually prepares a cup of tea and some food so that he can have breakfast during the morning meeting. This meeting usually designates the rest of his day and work plan.

Sometimes he does not have a lunch break, while sometimes he takes a lunchbreak to play video games or napping based on his mood. He usually feels hungry between 14:00 and 16:00 p.m. while working from home. He heats some leftover food or order some food to eat during a break or while working.

Usually, no one else is at home while he is working. He is not distracted by noises from inside or outside. P1 is happy with WFH. He believes that he can make better time management while working from home. While commuting, he slows down and stretches his program or he waits idle for workhour to end after he finishes his tasks because they need to scan their badges on turnstile gates for attendance control. On the other hand, he can deal with household chores or outside errands when he finishes early or while waiting idle between two meetings. At home, he tries to finish his daily tasks quickly so that he can have all those idle times for resting, recreational activities or chores. He does not stop working for household chores. He chooses breaks to do those when he needs to do any chores like loading the dishwasher or the washing machine. He says that he feels more rested after his breaks compared to the breaks in the office. His armchair is comfortable enough so that he does not even stand up during some breaks. He used to have some ergonomic difficulties before, because of sitting on a comfortable armchair while trying to do pixel-precise graphical work. However, he does not have any trouble now, because he does not do such tasks nowadays. He

occasionally lies down on the couch for ten minutes during breaks. He does not lie on his bed so that he does not accidentally sleep for an hour.

While working from home P1 does not make phone calls with socializing purposes. He uses breaks for such calls. He does not socialize much during workhours. He does some occasional small talk with his colleagues. While commuting, he leaves his desk to take a break with a few colleagues because they ask him. If they have not asked him, he would keep sitting alone, and keep himself busy on the internet with his personal interests. He does not feel any lack of work or non-work communication with his colleagues. He thinks that it even makes WFH more productive than commuting. He mentions only one inconvenience. For example, he cannot quickly point something on his colleague's screen with his finger to show something to a colleague.

In general, he does not make any specific spatial changes in his work environment while starting or ending the workhours. Items like his smartphone, remote controller of television, controller of game console are around him, in a reachable distance, most of the time while he is working. He does not move the armchair or the wheeled table even while he is lying on the couch and watching television in the evening, unless he will have guests, or he wants to use the armchair or the table for some other purpose. If he is going to work from home the next day, he leaves the laptop and notebooks there too. Otherwise, he puts the laptop on a shelf of the bookcase, and his notebooks in his backpack. He sets up his workspace in the morning, if he moved any item for reasons mentioned above. He does not do any extra cleaning around the room before starting work. While starting to work that he needs silence or focus, he turns off the television if it is on; closes the door if washing machine is working; notifies guests if there are any; or goes to his bedroom to work there.

P1 feels that he is in home environment during breaks. Seeing work environment and items during off-work hours usually does not make him think about work. On the other hand, seeing things like game console while working occasionally causes some distraction especially when he is having a very busy day or getting bored of the meeting. During the off-work times, the organization does not disturb P1, and does not expect him to check his e-mails or to work. Because it is difficult to make a full transition to WFH for an organization in defense industry. Employees still need to use special VPN software to connect and work on their own computers at the organization's premises. They cannot even check their work e-mail on their phones. P1 says, they still could not embrace the WFH culture because of the organization's structure.

P1 feels "at home" while working too, but he says that it does not constitute an obstacle while he is working from home. He believes that he is used to working from home because he also used to do freelance works from home when he was a student, which was before the pandemic. He mentions his past experience of working from home in

his previous home during the pandemic. His home mate has been sick and quarantined, thus P1 has had to live and work in his bedroom for two weeks without seeing anybody. He says that he was pretty worn out, and he has felt the complications of being simultaneously at home and office all the time. He says that he leaves his bedroom and goes to living room during breaks while working from his bedroom, so that it does not cause such stress again. Now, he works and does most of his indoor activities in the same living room. However, he says, it is different because his bedroom is separated, and he usually has something to do outside of the house after workhours, which is mostly for sports training or meeting with friends. P1 also mentions another past experience of working from home in his current home. He and his home mate used to work from the room converted separated from the living room. They have converted it to office-like space with two proper desks and chairs and so on. They did not use that room often for something other than working. P1 says, that room used to feel much more like an office during that period, compared to the current situation of the living room.

According to P1, his home mate does not problematize P1's working from home in general. However, his home mate speaks out about some inconveniences, for example when he comes home in the evening and finds P1's dirty dishes on the kitchen counter remaining from the morning.

B.2 Second Participant (P2)

P2 is a 36-year-old acting conservatoire graduate. She has been working in a company in the defense industry for 8 years. She has started as manager assistant and then continued as deputy project specialist. She has been living with her husband and cat in a 4+1 apartment in Ankara for 5 years.

B.2.1 Work Life and Home Life Background

She has been working full time from home for the last 2 years. Standard work hour schedule of the company is from 08:30 a.m. to 17:00 p.m. She is the only one in the company who is working remotely. She does not have any mandatory work hour schedule, but she can be requested for work any time of day because of the type of tasks she is responsible for. She has been working for this company for the last 8 years. While commuting in this company, she used to start working at 09:00 a.m. and she was leaving sometimes early as 15:00 p.m. or sometimes late as 22:00 p.m. depending on the works that should be done that day. A few months before the pandemic, office of the company has moved to another city where its factory is located; and thus, she has started working from home since she wanted to stay in Ankara for family matters.

She does not mind current work hours because she loves her job and employers. However, she would prefer working from 09:00 a.m. to 18:00 p.m. if it is for another job in general. While she was commuting to this job, she was sharing a room with an employer in a 2+1 open-kitchen plan office.

Before her current job she has had a short-term experience of working in a travel agency; and before that, she has had an acting career in state theatres for 5 years. Her work hour schedule was from 09:00 a.m. to 18:00 p.m. in travel agency. While she was acting, they were working without a limited schedule during rehearsal periods, and then they were commuting to theatres according to varying play schedules. She has quit her acting career because she was not financially satisfied.

She would prefer commuting over working from home. She thinks that WFH looks easier from outside, but it is not. She mentions that she has been experiencing concentration difficulties caused by daily household chores while working from home. She says “Plus, I am a woman. Sometimes you remember that there was laundry, and you handle it by interposing it while working.”

Before her current dwelling, she has lived with her husband in a 3+1 apartment which was closer to the city center; lived with her mother for 5 years in a 3+1 apartment where her elder sister was also living there before. She has always had her own room while living with her mother. She enjoys her current apartment. There is enough space for everything. She projects only aesthetic changes about it. She says that she does not need any extra space or a particular room to take time for herself, she can do it anywhere. She just set up an additional smaller living room with television so that she can watch whatever she wants while her husband is watching sports. P2 used to have a much more active social life when she was younger and living with her mother. She says, she has chosen to settle down after marriage and she also realized that it is difficult to have an active social life when she has a job and lots of household chores that she needs to do herself. She is not against guests, but she does not usually prefer. She and her husband enjoy spending time together at home.

B.2.2 Participant's Experience of Two Lifeworlds

In P2's current home, there is a little entrance hall where the kitchen with a balcony, restroom and the living room is connected. This entrance hall is connected through an L-shaped corridor to the rest of the house. From the entrance, bathroom and the room where she has put her work desk are alongside the corridor. The small living room, dressing room and bedroom are lined up from the corner to the end of the corridor. She describes the room with work desk as a “half-room” because of its size. She says that she does not predominantly identify this room as the work room. She calls it as cat's room (i.e. ...'s room). She also used to put her extra stuff in this room. She says

that she has made a simple room in it for herself later, just to have a layout so that she knows where she put her documents. She does not name any space as the work room because she believes that everyone can work anywhere as laptops allow it. She pays attention to decoration in general too and she just made a room that will visually hide her mess and not disturb her without disrupting the visual organization of the house. She says, this house has an order, and it is essentially where they live. It is not only hers but also her husband's living space. Therefore, she does not want herself or her husband to see (work-related) papers around while living. That is why she has chosen a room that she enters and uses lesser than other rooms. Indeed, she never uses or enter this room other than working or taking an item like vacuum cleaner.

The room with the work desk has a window facing the emergency stairs outside. In front of the windows, there are two file cabinets with documents and office supplies in them and preserved food jars on them. Vacuum cleaner is next to the window, and cat's litter box is in the corner of the room. Next to litter box is P2's work desk facing the wall with her laptop, printer, lamp, some office supplies, calculator, notebooks and a calendar with photos of her deceased dog on it. She uses one of the chairs of dining table while working. Other office supplies and ongoing documents are placed on a smaller file cabinet with drawers on the other side of the desk, or in other words, at the other corner of the room. She has placed the desk in that position because she needs a location which has dimmer light and no outside view in order to concentrate while doing important work. She says, she has always been like this since her childhood as she was spacing out and looking outside the window during lectures in the class. Therefore, she has put the desk as such in order to prevent distraction or any mistake especially while doing precise calculations for pricing. She does not make any changes in the room while starting or finishing the workhour.

P2 has been working in the firm since they have started to develop their main product. She has knowledge about every step from production to sale so that she is involved and responsible for varying tasks exceeding one job definition. She joins meetings with colleagues and clients from the defense industry, about clients' needs, feasibility, cost and pricing and so on. Rarely, she joins online meetings all day long. They have status meetings every Monday.

She certainly prefers individual work over group work. For example, she does not like it when someone makes any changes in terms of the order of documentation process that she is accustomed to for 8 years. She also personally prefers reporting to one person. In terms of being accompanied, she also prefers being alone if she commutes to the office, but she might have one person to talk sometimes so that she is not bored. However, it is different while working from home. She exemplifies in order to explain; she feels the need to say "good morning" to someone, to have a conversation or a cup of coffee with someone in the real office. However, she does not have such a need at

home because she has a different environment here. It is her home, and she included the work life into this environment.

She says, she does not need any routine while starting the work hour. She can take notes on the phone, or she can interpose a task while doing another important work. She says that she can work anywhere and in any condition. She never wakes up late. For example, even if she has to start working at 10:00 a.m. she certainly does not sleep till 09:45 a.m. Because she empathizes with workers of the company's factory. Their work starts at 08:30 a.m. and they have to wake up 06:00 in the morning. Therefore, she never wakes up late thinking "I am at home anyway.", and she is up most lately at 07:00 a.m. She has breakfast and coffee. She always starts workhour as ready to work whether she is at home or the office. Accordingly, she does not want to allow such comforts for herself because, she says, it affects one's work life. Because she sits with pajamas while others do make up, wear high heels and commute. She says, this provides a terrible amount of comfort after some time, because one thinks "I am at home anyway." She never lets this happen to herself for the sake of her self-accountability and because of her respect for colleagues. She never breaks the routine of turning on the laptop and being ready to work at 09:00 a.m. even if she has nothing to rush. She usually does not have lunch at home. She cooks dinner for the evening or do chores during lunch time, and also during some other breaks. If she is mostly available on a day, she does workout or outside errands, but she never turns on the television or stays idle. Her employer knows about and does not problematize that she is going out for an errand, or that she is not waiting in front of the computer during the work hours. Because they trust and know each other very well after working together for years. They became very close and loyal like a family. Her employers know that she does not do other things when she has any work to do. They also know that they can reach her even at 08:00 a.m.

P2's husband commutes to work. During work hours, she is accompanied by the cat only. She is living in a quiet neighborhood. She does not need to make any spatial arrangements before starting a task or joining a meeting. Starting from the night before a meeting, she usually keeps thinking about the meeting and what people can ask and how she should answer and so on. Therefore, she joins meetings as confident and knowing what to say.

She is not distracted by anything she sees or hears while working. Sometimes, she is annoyed if she could not do the chores she planned to do because she has to work. However, she never stops working just to do household chores. She highlights and elaborates on how much she loves her job and employers and how much she respects them. Although her home is the priority in other contexts, she does not care about laundry or any other chores when she has work to do. According to her, everybody including her husband thinks that she is not getting tired at all because she is at home anyway. She does not want to give her colleagues and employers the impression as if

she is idle or just doing chores instead of work because she is at home. That is also a reason why she wakes up very early.

P2 says that she does not have any kind of scheduled break. She sits in front of the laptop only when she has something to work on or when there is a meeting. Because they are a project-based organization. Therefore, she is free when she is done with assigned tasks. She says that she would prefer commuting instead, although her WFH conditions looks very pleasant from outside. She believes, her mind started to slow down because she works from home. Sometimes she does not go outside or have conversations with other people during the days all week-long unlike commuting. She occasionally has some conversations on the phone with her mom, sister or a friend. She feels lonely most of the time. It is difficult for her unlike she has presumed in the beginning. On the other hand, the office is different place where you have to be active all the time and interact with people and so on. Recalling her commuting days, she says that work never ends anyway when you are the only employee working face to face with your employer.

She also considers the possibility that she might start commuting for this job or another in the future. Thus, she wants to stay vigorous and energetic. However, she believes, she inevitably loses some of it. For example, according to P2, she used to have extremely sharp memory while commuting but now she does not. She does not want to be overcome by languor or become lazy or slow by any means. She does not want to lose her responsible, hardworking and punctual way of working. She believes being idle or watching television would make it worse in her situation. Therefore, she wants to be constantly moving physically in the house such as doing work out and so on. She says that she inevitably does household chores because she is a woman, and she notices dust around and so on when she is idle. She says that maybe not her mind, but her body stays active this way. Thus, she exhausts herself physically during the idle work hours until a meeting or she is assigned with something new.

Another problem she has been dealing with is that she is procrastinating some works to last days of submission. She says that she used to finish any assignment on the day it is given even if she has weeks to do it. However, the longer she has been working from home, the more she has been procrastinating by doing household chores.

P2 feels more like “at home” while sitting at her desk. However, she goes into a state similar to the flow state while working and forgets about anything other than work. She has high motivation not just because of her strong bond with the company and employers but also because she loves being trusted for being flawless on her job. Peak point of that happens while preparing bidding documents for high value tenders made by departments of military forces. These documents have to be flawless, otherwise the company’s bid can be eliminated by military officers even for a single punctuation mistake. During such periods, she closes herself to the world and even turns off her

phone. She even crosschecks all the Excel calculations by redoing them with pen and paper. While working from home, she still has her highest motivation and performance if she is working on such assignments.

At the end of work hours, P2 does not feel any urge to leave the room she works in. She does not mind turning on the laptop to check out some work-related things. She does not mind working extra till late hours. She does not mind being called and assigned to do something urgent at late hours. She says that if you love your job then the time is not an exhausting concern. She has never complained about this. She says that you have to keep working if the job requires you to work late because it is where you earn your knowledge, food, money and experience, essentially your life.

P2 does not have any temptation to turn on her laptop or check anything when she sees her work-related items. Because she has her smartphone and smartwatch all the time anyway. Additionally, she is always reachable via phone call, and she always checks her e-mails whenever she has any notifications at any time of day so that she can act in case of any work emergency. According to P2, her husband does not problematize this because he is extremely responsible about his work as well. She also thinks that some things compensate others between P2 and her husband in terms of her working from home, such as that she has time to cook during the day as an advantage of working from home.

B.3 Third Participant (P3)

P3 is 33 years old. She is a Turkish language education graduate and a sociology graduate. She has been working as a content moderator for the last 8 months, in an intermediary technology company providing services for another company owning a social media platform. She inspects all types of contents uploaded by users on that social media platform for violation of rules established by the platform's owner company. She has been living with her husband, 3-year-old daughter and 2 cats in a 4+2 apartment with two floors and a terrace in İzmir for the last year. She has been married for 4 years.

B.3.1 Work Life and Home Life Background

She has been working full time from home for the last 8 months. She works 5 days a week, and her shifts change every week among: 08:00-17:00, 15:00-24:00, 18:00-03:00, 00:00-08:00. Her weekly vacation days also change, but employees can demand specific days beforehand when they need. She is fine with most shifts except the night shift (00:00-08:00) based on her past experience of sickness after those shifts. She says

it caused inconvenience in her everyday interaction time with her child and also caused sleep-related problems.

Before this job, she was unemployed for 4 years. Before that period, she has worked as a Turkish teacher in study centers. She worked as an employee for a study center (09:00-18:00) for 2 years, then she founded her own study center and worked there for 2 years. She used to work almost any time of the day in her own firm. She has also worked as a real estate agent, sports animator, and self-entrepreneur in online commerce before. When she was teaching at the first study center, she was using a recreation and resting room shared with 4 other teachers. In the other study center she founded, she shared a room with her business partner who is also a teacher, but they were not using the room very often because they were teaching most of the time. She prefers working alone on projects, at least until achieving a certain progress on the objectives because she thinks doing everything as a team causes waste of time. However, she prefers being accompanied during work hours. It is another reason why she does not like night shifts, because everybody at home including cats is sleeping during that time.

Before her current dwelling, she has lived with her husband, daughter and cats in a 4+1 apartment with 2 floors; lived with her husband and cats in a 3+1 apartment; lived with her mother, father and a younger cousin in 3+1 apartments during P3's high school and university years (last one had two floors); lived with mother and father in two 3+1 apartments and a 3+1 house with a garden (which was her first and favorite home). She has always had her own room while living with her parents. She says she has never lived in crowded house, and she does not like any kind of crowded and small places now either. She enjoys having guests and socializing at home as long as she feels comfortable in terms of spatial needs. She does not need any dedicated and long periods of personal time because she feels satisfied with everything in her life at the moment.

When she is asked to compare her past living conditions, she elaborates on the differences between living in parents' house and her own house. She says that she has started to feel like she owns every part of the house now unlike the time when she has to live abiding parents' spatial rules because it was "her parents' house". She notes that it could be a problem about past generations. In her current dwelling, she does not have any shortage of space or any unsatisfactory space, but she adds that she could use an extra room for reading without any electronic devices in it.

B.3.2 Participant's Experience of Two Lifeworlds

In P3's current home, there is a living room with a small open kitchen area in it on the upper floor. This living room opens to terrace with some sea sight that she enjoys.

There are also a restroom and her daughter's playroom in this floor. All these rooms are connected via small stair landing. On the lower floor, there are a dressing room with its own bathroom, a room with a dining table and bookcases that they could not fit into upper living room, a storage room mostly filled with clothes that P3 sells online occasionally, bathroom and another little restroom. There is also another relatively large room compatible to be a living room on this floor. However, they use it as the bedroom because their bedroom furniture is large size, and their daughter also sleeps in this bedroom. Rooms on the lower floor are connected through a long corridor which also opens to the entrance.

In terms of working from home, she has planned to convert the room with the dining table at first so that she could have some kind of a personal work room. However, she has changed her mind for multiple concerns. She did not want to be so lonely and isolated from rest of the house. Her daughter would want to go in and out frequently anyway. Additionally, they were going to have to heat that extra room during winter.

P3 has set up her workspace in the living room on the upper floor. She has a desk with a desktop computer on it and an adjustable chair. The desk is close to kitchen area and especially to water cooler, because she often drinks water. The desk is also next to the terrace door, in a position that she has a nice outdoor view while working. She smokes a lot while working. She turns the monitor and have headphones on so that she can smoke on the terrace while she is working, and she can also see her daughter playing in the living room. Thus, she considers the terrace door as a major reason to have the set up here in this position. Additionally, she shares the room with her husband watching television or playing games during her evening shifts so that she does not get lonely.

Beyond the work area, there is a sitting area on her right side while working, including two couches, a coffee table and a television. She does not see the television while working. There is also small kitchen area with a sink, coffee machine, and a tall kitchen island behind her. There are also a restroom and the daughter's playroom next to the living room on this floor.

Her "work computer" is a secure computer given by the company. It cannot be physically moved, and even plugging in your personal phone for charging is prohibited. She does not need to move any objects or make any spatial changes while starting or ending the work hours. She just checks if it is crowded on the kitchen island right behind her while joining a video call. She usually has some non-work objects on the desk too, like a plant, a massager, nail polish and so on. She occasionally uses nail polish and massager while working too.

As a content moderator, P3's job definition mostly involves inspecting random video contents (or live streams) uploaded by users on a certain social media platform. She inspects them for violation of rules established by the social media company, such as

nudity, smoking, child abuse, violence, hate speech and so on. In order to meet the performance requirements, she needs to watch, make a decision about the content and then click on a button indicating her decision in approximately 16 seconds in general to earn bonus payments at the end of the month. She notes that her job does not require her to be looking at the screen and scrutinizing every second of each video although it requires some level of ongoing attention of the moderator. When you are used to it, she says, it is easy to understand if there is no violation in most videos just by looking at it for a few seconds. Therefore, she can talk with someone or polish her fingernails while working, looking social media or shopping apps on her phone, reading a book. She cannot answer the door while working because she is on upstairs. She can read and write text messages but cannot talk on the phone most of the time while working because she needs to have headphones on. Considering that she always uses headphones while working, she is not distracted by television or people talking in the background either. She says none of these distracts her and she still acquires highest performance evaluations. She adds that the type of task she does is effective in terms of keeping her attention on work. Even while she is distracted or thinking about something else, she reflexively turns to the screen the moment a visual comes to screen or she hears something over the headphones.

She notes, some hours (e.g.: 18:00 p.m.- 00:00 a.m.) are so busy that she is delivered videos after videos frequently and she has no chance to do anything other than work. However, some hours (e.g.: 07:00 a.m.- 08:00 a.m., 15:00 p.m.- 17:00 p.m.) are so idle that she is delivered one video or stream every few minutes. One time, she says, she has even had the chance to tidy up the living room while keeping an eye on the computer screen during an idle hour.

She and her colleagues occasionally join trainings during workhours to learn about policy changes, and then they receive a quiz about that. If the team leader notices any problems, leader sets up a short meeting with the particular moderator. P3 says moderators' daily schedules are arranged by another department. They see their breaks (e.g.: 15 min., 45 min., etc.), meetings, trainings, quizzes for the day when they turn on the computer, and it is different for different moderators so that the moderation continues all the time. She, as a moderator, can also demand a meeting with other moderators or the team leader.

Company has a wellness department which is formed by psychologists. Thus, moderators can demand online professional help any time of any day because they can be affected by the videos they inspect. This wellness team also provides consultancy and planning for different online meetings and groups for workers to join if they are interested. For example, animal lovers come together to introduce their animal friends and talk about them. People trying to quit smoking can talk to each other and have guidance from a psychologist. There are even online yoga sessions with a trainer where workers can do yoga together at home. Participants generally turn on their cameras to

introduce themselves at first during such online gatherings, but it is optional in general. P3 usually does not turn on her camera if she is not supposed to talk. As a rule, she does not have any speaker plugged in to computer, she always uses headphones given by the company. They also have WhatsApp groups, and workers in the same city arrange a face-to-face gathering once a month which P3 also joins. She says they have some sort of horizontal hierarchy in terms of social communication where all employees and managers call each other by name unlike the structures she is used to in Türkiye. She communicates with her work friends and have non-work conversations while working especially during night shifts. Because everyone at home is sleeping, and she gets lonely and bored as her colleagues. They use online audio calls and text messages for this and not video call, because they are supposed to be looking at the videos that they inspect. Also, the audio call is silenced automatically when a new video starts on the screen.

During the day shifts, P3's husband commutes to his work and her mother comes home to take care of the daughter. Daughter has reacted to this change at first, but she is used to it now. Daughter and her grandmother spend the time in living room, playroom, or the kitchen downstairs. She continues to communicate with her daughter and mother while working. According to P3, her daughter's daily activities are not changed in general, but the difference is that P3's location is stationary.

During the evening shifts where she needs to work after 18:00 p.m., husband takes care of the daughter. After daughter sleeps at around 21:30 p.m., husband spends time in the living room, watching television or playing video games. P3 communicates with her husband while working. They can have dinners together as a family in general, but P3 cannot join them 5 days a month during the week of 18:30-03:00 shift.

During P3's night shift (00:00-08:30), her husband and daughter are sleeping. Her husband leaves home at 08:00 a.m. to commute, and her mother comes home to take care of the daughter who is still sleeping. Then P3 stops working at 08:30 a.m. and goes to sleep immediately before her daughter wakes up because they have tried otherwise and experienced that daughter does not allow P3 to fall asleep.

She is careful about television being turned off for example during the meetings. However, she says, noises her daughter makes in the background during a meeting is not a problem for P3 and such things are not problematized by company either.

During the breaks of day shifts, P3 usually spends the time with her daughter. Occasionally, she loads the laundry machine or hangs laundries. She likes such advantages of WFH, because she can spare her off-work hours for social life instead of household chores. She also tries to time the daughter's meals to breaks so that she can feed her, or she can cook her lunch. She drinks coffee with her mother if she is at home. During the 45-minute breaks of evening shifts, she can watch television with her husband or simply gets involved in the usual evening routines of the family. She

usually does not communicate with colleagues during breaks because they are already on online audio call usually while working.

She does not use lunch breaks or other breaks for eating during any shift. She usually eats while working and she enjoys it because she practically eats while watching social media videos and streams for work. This way, she also makes time for other activities during breaks. Mostly, she does not cook her own meals while working. Sometimes her husband or mother cooks (depending on the shift), and sometimes they have food ready to be heated because her husband is in catering business.

She always leaves the work area during breaks for some reason. She does not like being stationary on that chair all the time. She does not need to lie down or sit because she is not physically tired usually. However, she occasionally goes out to terrace and look at the distant vista without doing anything else because her eyes are exhausted after busy hours.

She does not feel rested or distant from work during 15-minute breaks, because she only has time to visit the restroom or to make coffee. She does not like the break system of the company. Because they schedule the breaks of every worker in a way that the moderation work continues all the time, and they send each individual's unique break schedule for that day 30 minutes before the beginning of the shift. Sometimes, she has frequent breaks in the first half of the shift when she is not tired, but then she has to work for hours without any break.

She does not feel "at work" while working or during breaks. She always feels "at home". She says it is impossible to break the home life cycle or to distance herself from home because she is constantly surrounded by responsibilities, biggest responsibility being her child. She also said, she realized during the interview that she always tries to deal with little chores when she has the chance in order to make time for recreational activities later. However, night shifts are different than others. During the night shifts, she can feel "at work" and distance herself from home because she cannot do chores at night and there is no one else around her. Even during breaks at night shift, she does not turn on the television. She reads a book, checks out social media, or sometimes reads new updates about work. She also socializes with colleagues most during the night shifts. During the work or break in a day or evening shift, she does not feel any lack of socialization with colleagues because they already talk to each other occasionally, and she is commonly made a part of conversations going on in the house. During the interview, after these questions and answers about her feeling about being "at home" and "at work", she said that she feels "at home" around 70% of the time during day shifts, while she feels "at work" around 70% of the time during night shifts.

P3 is free to change the schedule of one-on-one meetings that team leader demanded if, for example, she does not want to make noise while her daughter is sleeping.

When she was asked about permanent liminality and not being able to focus neither work nor home, she answered that she feels this way and gets distracted a lot especially when she has worked for a long time.

In terms of the flow state, she says she can enter such state and enjoys it when she needs to lower her average time of inspection or when she has to fill a quiz. She likes her job in general and feels responsible towards his colleagues too.

At the end of a work shift, P3 turns off the computer and passes to sitting area with couches and television and joins the evening routines of the family, except the night shifts where she goes to bed right after turning off the computer. She does not have any urge of leaving the work area, but she does not like sitting on that chair and she finds it ergonomically uncomfortable. Work computer or furniture does not remind her about work. She says she is mostly triggered by some visual stimuli she saw on television or on social media. Then she starts to think about if it should be banned when she encounters something similar while working. She further asks colleagues about it via WhatsApp groups. She does not use work computer for any personal activities. During off-work times, she occasionally turns on the computer to join online gathering sessions (e.g.: yoga, animal lovers' group, etc.) conducted by wellness department. On her personal phone, she has application version of the Lark software that they use for communication and file sharing on the work computer. Thus, she is notified when her evaluations are updated, and she checks it if it happens during off-work hours. Otherwise, company never try communicating with her during the off-work hours.

She was also asked about family members' reaction to the spatial and social conditions brought by her working from home. She says she did not get any complain, probably because they can talk or watch television without any limitation while she is working. She notes that her husband tried to make their daughter get used to the situation by simply taking her downstairs during the first week. However, it caused a backlash from the daughter. P3 says that she told her husband and mother to let her daughter come to living room whenever she wants to. Because, P3 says, her daughter likes to be around her even if she cannot have the full attention of her. Since then, her daughter does not complain about P3 working from home and does not cause any particular problem for P3.

B.4 Forth Participant (P4)

P4 is a 45-year-old agricultural engineering graduate. She has been working as an auditor and trainer for 2 years in an audit and certification company focusing textile industry. She founded this company with a friend. She has been living with her

husband, 2 children and a bird in a 4+1 house with two floors and a terrace in İzmir for the last two years. Her son is 14 and daughter is 10 years old.

B.4.1 Work Life and Home Life Background

She has been working from home for the last 4 years. She has started working from home in a hybrid model a year before the pandemic when she was working for another company. Then she founded her company 2 years ago during the pandemic. She works full time from home from 9:30 to 18:00, 5 days a week.

She has 24 years of experience in this profession. She has worked within similar job definitions in 3 different companies before founding her own company. She used to work in these companies approximately from 8:30 to 18:00. She has experienced having her own room and also open plan offices. In her previous job which was hybrid, her home and job were in different cities. She did not have a room, so she was sitting anywhere she finds in the open plan office when she commutes. She has struggled working in open plan office because it was too noisy. She is comfortable with both individual and group work, and she has years of experience in both because she had administrative responsibilities in addition to her core job definition in her previous jobs too.

Before her current dwelling, she has lived with her husband and children in a 3+1 apartment; lived with her husband in a 3+1 apartment; lived single as a student in a 3+1 apartment; and lived with her mother, father and a sibling in a 3+1 apartment sharing a room with her sibling.

She prefers large spaces and being able to have alone-time. She says the current apartment is mostly sufficient so that they can spend time together as a family and they all can be alone in different rooms when they want to. She likes guests but she does not enjoy a crowded house for a long time.

B.4.2 Participant's Experience of Two Lifeworlds

Two-floor apartment has an open kitchen in the large living room which is connected to the rest of the apartment by a corridor. Main entrance and bathroom are along the corridor, and children's separate rooms are at the other end of the corridor with the stairs to upper floor. There is a bedroom, a closet room and a terrace on the upper floor. She usually works in the living room. She also uses her son's room when she has a meeting or when she needs to deliver an online training session. Meetings in general occur approximately twice a week. Training sessions can rarely take place on up to 3 consecutive days that she needs to be in her son's room all day long. She chooses to

use her son's room because it is quieter than the living room and she wants her husband to be able to get comfortable in the living room during her meetings.

The author did not take any photos of the son's room for the sake of his privacy. According to P4's descriptions, it has a window, a bed, and a desk with a bookcase elevated on it. Although she admits that her son's room feels more like a real office environment with a proper chair, desk and silence, she realizes that she misses the couch in the living room while working in her son's room. She says she has internalized her spot in the living room as her essential workplace, and she prefers this place to work as long as it is possible because it is much more comfortable for her. However, she can also focus more in her son's room while delivering training without any concerns she has while turning on the webcam in the living room.

She usually works in the living room, sitting on the couch facing the television. She uses her laptop with a mouse on a foldable laptop stand placed over her lap. She puts her feet up on a footstool with a cushion. She has a foldable end table next to couch, where she usually puts her "work" notebooks, and pens, teacup, water bottle, glasses and so on. She also has remote controllers (for television, air conditioner etc.) around. There is a balcony behind her, and the dining table and rest of the kitchen area on her right side. She chooses here as her main working area for her personal comfort. She likes to have the television as an ongoing sound in the background while working, and she also has quick access to balcony. She also prefers to be in a large and spacious room. Additionally, it is already her spot where she sits all the time whether it is work time or off-work time. Most of the objects around her stays during off-work time too. At the end of work hour, she asks her husband if he wants to use the laptop. If he does not want, she puts the laptop aside.

When she is asked to explain how the television sound is different than the noise in open-plan office that she is annoyed, she elaborates. She says that the noise in open-plan office is a cacophony of lots of people talking at the same time and she cannot control it. On the other hand, she can work and even focus while a news channel or some music playing on television, and she can control it whenever she wants.

Her job definition is mainly shaped around auditing and training. Auditing involves on-field observation and writing a report later for the certification process. Based on the customer firm's demands and needs, she prepares an online training program, presentations and delivers it. She also prepares and delivers open training sessions. She does not involve in the processes like organizing the date and which individuals will join and so on. She is also responsible for tracking laws and regulations about certification standards in the field and revising their training materials accordingly as her everyday task.

P4 starts the day having breakfast with her husband as a routine. She starts working by turning on her laptop at 9:30 a.m. and checking her e-mails. Between 10:30 a.m.

and 11:00 a.m., she has her usual short meeting with her business partner on the phone in the living room, unlike other meetings mentioned above. They plan the day and the workshare during this meeting. She has a certain lunch time with meal and an after-meal coffee, which is 12:00 p.m. as a principle or sometimes 13:00 p.m. if a meeting drags on. She likes to talk, and thus she communicates with customers when it is needed. At least a third or sometimes half of her workday involves communication with other people, and the rest is individual work.

While she is working, kids are at school and sometimes her husband is at home. Husband usually prefers spending half of his day outside, and he mostly spends time at the kitchen area of living room. Her husband handles particular cleaning chores involving detergents with a strong odor when she is not working, because she is allergic to such odors. Meals are usually cooked by her husband because he likes to cook, and they share cleaning chores. She rarely stops working to do a household chore like hanging laundry or vacuuming floors. Husband answers the doorbell during her workhours.

P4 takes short breaks whenever she wants. She says she does not fixate on whether she spends a few extra minutes for a break. She attributes this relax attitude to her 24 years of experience. She plays with the bird occasionally, or goes out to balcony to smoke, listens to some music, checks Twitter on phone and so on. She does not prefer to spend her breaks on the phone because she already communicates a lot during the day, and she wants some silence during breaks. However, she calls her sister to have a conversation on a lunchbreak once a week. She has also some regular breaks. For example, she considers her 10:30 meeting with her business partner also as a break because they usually have non-work conversations too during that phone call. Then she has one hour lunchbreak at 12:00 p.m. where she has lunch and coffee with her husband, and a short break around 15:00 p.m. that she goes out to balcony to have some fresh air. She usually feels rested after breaks and she notices the difference. Although, she usually does not feel any urge to leave the working space during breaks, because she does not have a very stressful and crowded environment as she used to experience in previous jobs she commuted. However, she occasionally goes out for a walk in downtown or sometimes meets with her business partner to socialize during workhours when they have a few hours of idle time.

P4 and her partner communicate with each other via Microsoft Teams throughout the workday, for both work and non-work conversations. They usually use text messages, and occasionally audio calls. She does not feel any lack of communication between her and her partner. She also does not have any problem with communicating clients. She says it got better since the pandemic showed people that business can be done remotely.

P4 believes that people have different roles such as mother, spouse, auditor or manager. She also believes that people should be able to get into these roles and leave the others while starting or ending the workhour. She tells that she wakes up as a mother in the morning; prepare the kids for school; then she says goodbye to them and her husband; and she never struggles to get into “work mood” the moment she closes the door. She does occasional five-minute household chores during the workhours, but she does not consider these as a time-consuming problem. She says when she was commuting for other companies, dealing with other colleagues’ drama was much more time-consuming than pushing a button to start the washing machine. She always has been able to work at home because, she says, she was always mobile in her previous jobs so that she is accustomed to work whatever the environment is. She also says that being in her working space during non-work times or seeing her laptop do not make her uncomfortable or remind her about work. She does not consider her workspace as an office, or an environment dedicated to work. It is her living space and work is a part of it. She does not mind that daily home life and work life are going together. She checks her e-mails on her phone during non-work times if she is expecting a particular mail from a client.

She says she can get into some kind of flow state where she completely focuses on work; does not hear the television or any other sound; forgets about where she is and what time it is. She attributes this to the fact that she is able to choose doing the tasks she finds enjoyable and challenging, because she shares tasks with her partner.

When she is asked about how the family members react to the circumstances brought by her working from home, she says they do not disturb her, and she hopefully does not disturb them. However, she adds that her talking on the phone for a long time becomes a nuisance for kids especially during the days when kids are at home. Additionally, she noted a few examples of some interactions with her children. Her son sometimes says “I guess you had a meeting today” when he finds her water bottle at his desk. Her daughter arrives at home at 16:30 p.m. and wants to talk about her day. P4 sometimes negotiates with her daughter that she has to work a little bit more, or occasionally pretends to listen.

Overall, she enjoys and prefers working from home, and she claims that she handles much more work while working from home compared to commuting.

B.5 Fifth Participant (P5)

P5 is a 36-year-old public administration graduate with a master’s degree in urban policy planning and local governments. He has been working as an academy specialist at human resources department of a global engineering and technology company

focused on white goods for 5 months. He has been living with his fiancée in a 2+1 converted loft-like apartment in İstanbul for 7 months.

B.5.1 Work Life and Home Life Background

He has been working from home for 2 years in total. He has been working as a hybrid teleworker in his current job from the beginning. As his colleagues in the company, he is allowed to decide where he will work. He works from home for 3 days and commutes to the office for 2 days on a standard week. His current schedule of work hours is 08:00 to 18:00, 5 days a week. While working at home, he wakes up between 7:30 and 8:00 in the morning. While commuting, he wakes up at 05:15 in the morning to catch the shuttle bus at 6:00, and stops working at 17:30 to catch the shuttle bus leaving the campus at 18:00 and arriving at home at 20:00.

He finds the schedule acceptable based on the work hours commonly applied in Türkiye, although he thinks that standard work hours are unnecessarily long and ineffective. He says his work hours schedule has different impacts on him when he compares commuting and teleworking. Commuting and the office environment provides many various time periods to socialize and to get away from work activities during breaks, and WFH lacks this. On the other hand, he spends much more time doing work-related things in front of the computer screen while working from home. Furthermore, on comparison of commuting and WFH, he thinks he can focus more while working from home, although he is not pleased that he is considered accessible all the time. For example, he and his colleagues go to the cafeteria in the campus for lunch and everybody walks to the cafeteria and spend their extra lunch break time sitting on the grass and so on. Everybody who works at the campus knows that, thus nobody even attempts to call anyone during the official lunch break hours because they know they cannot reach anyone. However, P5 says, this attitude changed with teleworking, and people call via Microsoft Teams during the lunchbreak, knowing that you are always in short proximity of your computer.

When he commutes, P5 works in a cubicle shared by 4 people in an open plan office for the entire department of 15 people. Additionally, they have 4 meeting rooms. He says commuting creates another type of over-accessibility compared to WFH. While working from home, he can decide to not answer other people's calls during break times or when he needs to focus on something. The occurrence of interruptive communications depends on his decision or needs during that time. Thus, new ICTs provide more accessibility, but you can control it as you prefer. However, he says, people freely approach and interrupt to ask whatever they have in their minds when they physically see a colleague in the office, and it is considered rude to ignore or to send away people. That is why he can focus more and work more effectively while

working from home. He adds that interruptions in the office are not limited to individual acts. When a colleague has a problem and a group of people being supportive in the office, or when a colleague has something to celebrate and a group of people celebrating it, you need to be with them. Even when there is no particular occasion, people are usually in the office during short breaks, and they have conversations while others are working. He says the problem is that all social interactions are happening in the same space. He suggests a space separated from the actual working area where you can socialize and do recreational activities while you are still physically accessible at the workplace.

He has more than 7 years of experience in total in HR, first 4.5 years in a global company doing security, cash transport, ATM services and so on, and then 2.5 years in a port services and logistics company. He has had similar work hour schedules, from 9:00 to 18:00, and from 8:00 to 18:00. He used to share a room with 3 people in his first job, and work in an open plan office in the second job.

Before his current dwelling, P5 has lived alone in 1+1 open kitchen apartments for several years in İstanbul; lived in 2+1 and 3+1 apartments shared by 2 or 3 students in Ankara and Bolu for several years; and till he left for university, he has lived in 3+1 and 2+1 apartments in military housing campuses at various cities with his mother, father and brother who is six years younger than him. He says he has had his own room during approximately two thirds of his experience of living with family, and shared a room with his brother in the rest of that time. Comparing his experiences of living with family and living single, he prefers living alone. He is concerned about his individuality and his freedom and ambition to use the space as he wants. Although living with parents provides lots of advantages like financial comfort and having your food prepared or clothes cleaned, he did not want to live with his parents after university because he did not want to live while abiding the social and spatial rules in his parents' house. He gives examples of freedom on issues like usage time for bathroom or restroom, listening to music at late hours, cleaning the house the way he wants and when he wants. He says he would still prefer personal space and individuality over extra money and time he can spend on his social life. However, he prefers living with family over living in shared student houses, because he thinks he gets into the role of his parents' in that situation. In such conditions, shared spaces like kitchen and bathroom or the living room which is the recreational space turn into a problematic space that needs to be managed. Based on his self-observation throughout the years, he says he is very territorial and does not want to share his space or to be interfered about his space. He adds he is more extravert and social when he is outside, but he is more introverted and does not want to socialize with anyone at home. However, he also adds socializing depends on whom he shares the house with, because he likes socializing with his fiancée at home since they have started living together. He says they are both territorial and both need space for various personal activities.

Therefore, inefficient space brings interpersonal friction, and it requires constant negotiation. Fortunately, he says, they are both open to negotiation and both are willing to compromise for each other's spatial needs.

B.5.2 Participant's Experience of Two Lifeworlds

P5 tells that the apartment which they currently live in was converted from a tiny shop which was located on the ground floor of a residential building. It has an independent door opening to the street, and it has no connection to the interior circulation area of the building. Through the street door, we enter the living room with a high ceiling. They spend almost all of their time here. There is P5's adjustable chair and computer desk with his personal computer on it and his musical instruments around, in front of the only windows of the house which opens to street. P5 plays computer games, sometimes they play together. He also plays bass guitar and does his practices and recordings here. There is a couch and a few bookshelves with books and action figures on one side of the living room. There is a very large mirror on the other side and a dance pole in the middle of the living room where his fiancée practices pole dancing and sometimes she trains her pole-dance students. On the rear side, we see an open kitchen area with a counter, a refrigerator, a small dining table with chairs and so on. There is a few steps long narrow corridor through which we can go to the toilet and a shower, and a tiny room where they have their clothes and a laundry machine. There is a loft room on top of this tiny room. Narrow stairs take you to this loft room where they cannot put anything other than a bed for two people. It has a low ceiling that they cannot even stand up there. These two tiny rooms were converted from storage rooms of the original shop design. P5 says total size of these two rooms makes almost one normal size room.

He works in the living room because there is not any other space where he can place a desk or see any daylight. He works usually at the kitchen table or the couch, or rarely at his computer desk. It depends on different factors like his meetings or ergonomic needs at the moment, or if his fiancée is doing something in the kitchen or in the pole area. He usually sits in a position facing the living area while working at the kitchen table. When it is a day full of meetings, or when she needs to do something in the kitchen area, he works sitting on the couch, having his "work" laptop on his lap. In this position, he uses the touchpad of the laptop because mouse does not work on the couch surface. This is also the only position where he can have a wall behind him while joining meetings. While working, he uses a laptop, a mouse, headphones, and a notebook, all of which are work-specific objects for him. He puts them all in a bag next to the door every evening so that these objects are not harmed, and he can grab them all when he wants to commute.

P5 has at least 4 meetings every day, with 1-15 other participants. He spends most of his time interacting and communicating with various people from his department, other departments, administration, or outsource organizations. Online meetings are mostly with people other than his own department and usually visual meetings. However, he and the other four members of the academy team are always online on Microsoft Teams. They can send text messages all the time, and call each other as they can see whether the other person is not in another meeting. They usually use audio calls without cameras while communicating with people from the team.

His job definition involves lots of different processes. When there is a training requirement of some workers in a department, the academy team of HR department handles it. As the leader of this team, P5 is involved in all the steps, such as; making analyses of what kind of training and certification is required by whichever department, meeting with the leader of the department in need, checking if there is any former entry or any feedback about this topic in the main database, identifying exact types of training and individuals to be trained, finding outsource trainers if there is no other capable worker in the organization, making all the analyses including financial issues related to the process, communications and arrangements to organize trainings and certifications and also making these events happen, and also having responsibility of archiving and tracking of all certifications of workers and related legal requirements. While doing these, he communicates and interacts with everyone involved in these processes and also with colleagues from other academy departments and officials from other countries as it is a global organization. Although he is sometimes overwhelmed by too many human interactions, he admits that he is much more motivated while working with people.

He starts the workday with the first tea and cigarette of the day while preparing his work environment. Then he goes through a “mental process” of remembering and planning things to be done while checking his notes. He says this process provides him with a “mental transition” into work mindset. He does not always have breakfast in the morning. Instead, he usually has breakfast during lunchbreak.

He sees working from home as an opportunity to rest and make time for himself and his hobbies during the extra off-work time saved by not commuting. Because he wakes up and goes to bed too early for commuting days and he spends too much time on the road while commuting.

He finds the lighting at home far from the ideal compared to an office environment. Especially during meetings, he is disturbed by sudden high-volume sound of the call to prayer or sound of people and vehicles passing through the street right in front of the apartment’s windows.

He is sometimes distracted by household chores too. He compares telework and commuting, saying that he needs to prepare the food himself while working from

home. He also mentions dirty dishes as an example. Sometimes dirty dishes remain on the kitchen counter from last night. When he sees them during work hours, he becomes irritated even if he does not interrupt his work at that moment. But eventually he stands up and cleans or tidies up.

He says, maybe he would not get distracted if he had a room dedicated only to work. The room he works in is also a living room, kitchen, gaming room, music studio, dance studio and more at the same time. He says he tries to discipline himself and get used to it, but it is especially difficult when he is stressed or has low motivation for work, and these things start to distract him more than they normally do. He says that home is a place of resting, a place of doing things you enjoy. He needs to keep on working while he has a lot of things around that he would prefer much more to do. He elaborates that this sometimes causes the feeling of constant waiving and self-sacrifice to an extent that he feels like a “grounded child” at those times.

P5’s fiancée is usually at home while he is working from home. They usually have to share the room. In general, she is busy with her areas of interest while he is working. They communicate throughout the day, and listen to music and so on. When someone calls him, they pause the music, or she pauses whatever she is doing if it is causing noise. Occasionally she goes to bedroom when he needs to actively participate in a training session or an important meeting.

Sometimes she needs the room for giving dance courses to a student. When the course hour occasionally coincides with P5’s workhours at home, he takes his laptop and goes up to bedroom, or packs up his bag and goes to a café outside if they need music during the course. Such situations where he needs to leave the apartment happen once or twice a week. When it happens on a day without a stressful agenda, it can be even a good thing. That change of space can be even motivating sometimes. However, if it happens on a day jammed with meetings after meetings, it turns into an extra nerve-racking situation where he has only 10 minutes to pack up, go to a café and be online and ready for the next meeting. Such overlapping schedules are usually known before it happens, but he does not want to spend hours at a café. He says that going out and working at a café for an hour and then coming back home can be fun, but he does not consider the café as an ideal working space as it has too many environmental factors to distract him. Thus, he uses 10-15 minutes of breaks between meetings to go to the café so that he is not at home during such courses taking approximately one hour.

His activities during breaks change a lot. For example, If P5 and his fiancée have lunch together, they prepare and clean together during the lunchbreak, unless he needs to rush for another meeting. He eats only two meals while working from home; if he had breakfast in the morning, he does not have lunch during lunchbreak. If he has an empty lunchbreak, he can play guitar so that he blows off steam by doing something he enjoys, he satisfies his desire and gets rid of the distraction it creates. He plays the

guitar on a kitchen chair without arms, facing the “music station” where guitar amplifier, other instruments and personal computer stand in the living room.

Sometimes, he does nothing during short breaks; he just puts the laptop aside and lies down on the same couch. Sometimes, he takes a cup of coffee and talks with his fiancée, or joins his fiancée who is watching or playing something on her laptop at the kitchen table. Thus, he is always in the living room during breaks too. He says the only other room he can spend his break is the bedroom, and it results in a significant distraction when he goes there. So, he does not go to the bedroom unless he has to.

He does not feel rested after lunchbreaks because he does not feel any change between work hour and lunch hour. He compares WFH and commuting experience in order to elaborate. While commuting, he changes his location by going to cafeteria when it is lunch break. Although he communicates with many people through Microsoft Teams or phone, he physically sees and interacts with only his three regular colleagues from his team during work time. When he goes to the cafeteria, he has the chance to physically see and interact with different people from various departments. After lunch at the cafeteria, he spends time with these people, sitting on grass in front of the cafeteria. He says, even though sometimes they talk to each other about work during lunch breaks, he is distant from the office. He concludes, “When do I start working?”, “When do I have a break?”, these things become tangled because there is no such change of space while he is working from home.

When he was asked about feeling rested after short breaks, he answered that his breaks are mostly 15-minute breaks between meetings, so that these breaks involve more of getting ready for the next meeting rather than resting. Because he keeps on thinking about the next meeting even if he lies down to rest. He considers that these breaks do not help him rest but just prevent burnout. While commuting, he leaves the workspace for a coffee and a cigarette break, sometimes with colleagues. He says although it is still not a proper rest, it helps him to get some mental distance from work.

While working from home, P5 socializes with his fiancée during both break and work when it is possible. He occasionally socializes with a few colleagues during breaks when he and they are not busy. They do it via Microsoft Teams or Skype, and via text, audio call or visual call. He socializes with them sometimes while they are already communicating before or after a meeting. However, it usually happens via text messages because it is hard to catch somebody on a break when they are not physically in the same space. He does not feel any lack of communication with close colleagues. On the other hand, he feels the disadvantage in his communication with other people with whom he does not have any connection other than work because they do not have spontaneous conversations occurring only at the office. He believes that people build trust, friendship or at least some common understanding between them via such spontaneous conversations, so that it is difficult for him to have that while working

from home. However, he does not feel any lack of communication in terms of other work processes.

He feels lonely during breaks when his fiancée is not home. He remembers that he used to feel this disadvantage while living alone in his previous home and job. He remembers that he used to commute more just because he was feeling lonely and isolated to an extent that his mental health was affected. This feeling was not leaving him during off-work hours too. He says he does not get lonely since he is living with his fiancée now, but he notes that he had similar feelings after a few days when she needed to visit another city for a while.

He usually experiences something similar to flow state. He elaborates that his tasks are somewhat structured to him, and he usually has someone to give him feedback at the end of a task because tasks are usually handled during a meeting. Such process keeps him motivated and “in the zone” during the day. He thinks he experiences such a state more while working from home, because time flies by mostly socializing in the office rather than focusing on work.

During the breaks at home, he feels as if he brings the work stress into home. While working, he does not feel any disadvantage if he can focus and is actively working on something. Thus, he can feel mentally “at work” in those moments. When he fully focuses, the only things reminding him of the fact that he is at home are mostly ergonomical factors. However, he feels a disadvantage especially in terms of the transition between home and work during the beginning and the end of work hours. It is more difficult for him to get into “home mood” after work hours while working from home. Background is always same; he does not feel as if he made any transition neither in space nor time. He thinks it affects both work life and home life negatively. He says it is difficult to create separate settings at home to create a difference at the level commuting does. Because when he commutes, the building and the offices are arranged accordingly, and everybody dresses and behaves accordingly. Everything pulls him into a certain mindset. He lacks all of these at home. He says even the road between home and work supports such mental transition for him while commuting. When he comes home after a workday he commutes, he changes clothes, takes a shower and thinks “I am finally at home”. However, he does not have that feeling after work hours while working from home. He believes that it also depreciates the things he has the opportunity to do as a reward when he comes home. For example, he misses being at home after a long workday while commuting, but he does not miss home while working from home. He used to create some separation and zoning when he was living alone in a bigger apartment with more rooms. Such a change of space was creating some difference. He used to have the feeling of “I finally came to this room” after working from home. However now, he has a desk where he plays computer games and also records music next to the couch where he works, rests and spends most

of the time with his fiancée next to a kitchen area where he also works, prepares and eats food all in the same room.

He rarely forgets about work in the evening after working from home. However, P5 and his fiancée try to go outside to have a coffee and then come back home after work hours when they have the opportunity. He says it does good for him, and he thinks less about work on such days. He thinks less about the work in the evenings after commuting days too, if he does not have a very stressful agenda. He is not disturbed by anyone from work, and he does not check his e-mails or anything work-related during the off-work hours or vacation days. He has occasional communication with a few colleagues as friends outside of work.

He and his fiancée always negotiate about their spatial needs throughout the day. He says, “You are at work, and you want others to behave as if we are all at work. But the other person is at home, and she wants to feel at home. ... Which codes do we act upon?” Thus, he or his fiancée are compromising for each other all the time. He says she compromises more because of his work, and he thinks it is not fair.

B.6 Sixth Participant (P6)

P6 is a 42-year-old public administration graduate. He has been working as an accountant and financial consultant in a software company for seven and a half years. He is carrying out all finance, procurement and issues related to personnel in general. He says he is contributing to almost everything except software development. He has been living with his wife and son in a 2+1 apartment in İstanbul for 5 years. His son is 8 years old.

B.6.1 Work Life and Home Life Background

He has been working from home for more than 2 years. He usually works from home, but he goes to the office when he is needed for file work, inventory problem, personnel entry, some particular meetings and so on. He adds that being at home all the time also causes nuisance sometimes, so he goes to the office on his own will occasionally. They had not been going to the office at all for almost a year during the most critical period of the pandemic. While commuting, their standard work hours were from 9:00 to 18:00, but he says it changed when the telework condition entered their life. He says he might be doing a non-work-related task during those hours, and he might be doing a work-related task in the evening or night. He does not reject urgent work-related requests after 18:00 o'clock. He says he has his computers with him now, so if there is an issue it needs to be handled right away. The notion of 9:00 to 18:00 is no more,

at least for him because he does not know about other colleagues. Even when he is on vacation, he is occasionally requested to do work-related things. He does it right away, because he needs to do it when he is back anyway, and he does not want the stress of work he needs to do. Before teleworking, he had never been requested to work during off-work hours.

He has been working as accountant for 16 years, throughout all his career. He had started in a small office of an independent accountant, then worked in a certified public accountant's office, a furniture company and then an advertising company before his current job. Furniture company has a more corporate structure compared to others which are SMEs with very low numbers of personnel. He says, accountants usually try to contribute also to areas other than accounting in such SMEs, when it is needed.

In his current job, he has his own room at the company premises, which he used to share with his assistant before. In his previous jobs, he had always shared a space with other non-accountant workers. Only in furniture company, he had shared an accounting room with few other accountants. Confidentiality of the accounting job always requires a separate room already. However, he also enjoys and prefers having his own separate room.

Before the telework, he and his colleagues from his current job were usually not talking too much during work hours, they only make small talks during tea breaks. Although, they used to go to lunch together, mostly socialize at lunch and care about this activity.

P6 and his family lives in a building where his wife's some family members' families also live as neighbors. Before the current house, P6 has experienced living with his partner in 2+1 and 3+1 apartments in İstanbul with similar size to current apartment; and living in houses shared by 3 to 5 students during his university education. According to him, these student apartments in city of Bolu were much larger and comfortable than the apartments in İstanbul. He adds that the period he lived in those shared houses was his first time of having his own room. Before these, he had been living with his mother, father, little sister and elder brother in a 2+1 apartment where he never had his own room. They had a parents' bedroom, a small living room and a large guest room. They used to open the door of guest room only when there are guests. Three siblings used to sleep in the living room. When sister grew up, she had kept sleeping in living room and P6 and his brother had started to sleep in the guest room until they left the house for university.

He is mostly happy with his current apartment. He says, although it is a 2+1, a relatively small apartment in a 25 to 30-year-old building, it is still more ideal than similar apartments in newer buildings in İstanbul where form of space is limiting or restraining users' options to decorate and place furniture and appliances efficiently. He would want to decrease the living room space a little, and increase the bedroom space instead, but he is satisfied in general. He had not needed an extra space for work

before the telework. He says he did not even think about it because he has a lot of experience of doing everything in the living room or guest room.

His parents migrated to İstanbul in 1979. Lots of acquaintances from their hometown used to come and stay with the family in variety of periods ranging from few days to 5 years or so. He was accustomed to having guests in the house and not having a private space. He says that he had not felt any difference when they had guests in those years, because he was already sleeping with his siblings in living room and guests were just adding few more people to the crowd.

He had felt a big difference, when he has started to live in a shared student house during his university education. He had experienced the feeling of having his own personal room and staying alone within his own private space for the first time in his life. He had realized and comprehended for the first time that it is important to have your own living space. However, he went back to his previous living style after he completed his university education.

As in current times of this interview, they do not have too many guests. According to him, it started after their son had been born in 2015 because they were not able to go out and socialize as much as before; and then the pandemic has started. However he enjoys having guests at home, and he would want to have guests more frequently.

B.6.2 Participant's Experience of Two Lifeworlds

Entrance door of the apartment opens to a small entrance hall which connects directly to doors of kitchen and living room, and through a few-steps-long corridor it connects to main bedroom next to living room and to kid's room next to main bedroom. Bathroom and toilet room are on the other side along the corridor.

P6 works at the dining table in living room. He says he does not have any other choice because other rooms are bedrooms and kitchen, there is no other space to work. This is also the place where he spends most of his time during the off-work hours by watching television, eating, resting, spending time with family and so on. As a family, they usually have breakfast and dinner and occasionally have lunch at the dining table in the living room.

He does not have any favorite or usual side of the table while working. He considers his laptop given by the company only as a work laptop. There are no corporate restrictions on the laptop, but he does not use it for personal things. He puts the laptop into the laptop bag when his work is done. There is a slim bookcase at the opposite corner of the living room. He puts physical files and folders in there, and he takes these to the company's office when he is done with them. He occasionally uses his printer which is on a television unit with storage, close to the table.

He says it is not very possible to tidy up everything around before starting work, especially when their kid is at home. Everything is around all the time, because they have a little kid. For example, there might be a bicycle, a scooter or a trampoline in the middle of the living room. P6 just puts such things next to a wall because the kid comes and leaves them around again after several minutes. However, he feels uncomfortable if the environment is too messy; thus, he tidies up before work if the environment is too messy.

His job mostly involves individual tasks such as making precise calculations of the revenue and expenses of the company and reporting these to government, keeping a strict record of accounts and information about the company, archiving and informing the administrator about everything related. He occasionally has a meeting with the administrator when it is needed. Rarely, he joins meetings with other companies, where no one except the presenter turns on their camera.

He takes the kid to school every morning; then comes home; usually turns on the laptop while having breakfast; and starts working by doing urgent tasks. Usually his wife is at home, doing household chores if it is needed. P6 needs to leave his workspace occasionally because they usually eat all meals at the same table and that area often requires cleaning. He does not complain about noises inside the house, he just closes the door of living room sometimes when laundry machine makes too much noise. On the other hand, there are street noises constantly. He says he is disturbed by this, but he can continue working because he is accustomed to working in chaotic and noisy places. He checks his work multiple times to be sure there are no mistakes.

P6 takes breaks to do outside errands occasionally and to take the kid from school every day. There is no company schedule or rules about breaks. WFH provides more freedom about breaks and workhour arrangements compared to commuting. For example, during the first periods of the pandemic the kid was younger and needed more caring also possibly because of being constantly at home. When he had tasks to rush in those periods, P6 used to work after the kid sleep rather than working in regular 9:00-18:00 workhours. Kid used to sleep around 20:00 or 21:00; then P6 used to work till around 1:00 or 2:00 in the morning and then sleep. He says he used to work at midnight when the kid is quiet, and his help is not required. Then he used to wake up in the morning as usual because the kid wakes up early too. Then he used to sleep for couple of hours during midday. However, he used to continue working during the workhours too if something urgent comes up. He says it was like that for almost 3 months at the beginning of the pandemic. This was not regulated by the company in terms of schedule or payment.

Neither short breaks nor lunchbreaks are regulated. During breaks, he prefers going to bedroom occasionally to rest and stay alone for a while if the kid lets him, he says,

because kid would follow him to the room right away. He usually gets busy with his phone to blow off some steam and usually leaves the living room during breaks.

He socializes with his wife and kid during the day. They eat meals mostly together. He does not socialize very much with colleagues during work hours. He says the social environment at the company office was fine when they were commuting before the pandemic. Everybody used to be busy usually during workhours, but they used to chat during lunchbreaks and short tea breaks. He feels the lack of such communication with colleagues now, but they make occasional phone calls. He says he does not have particular feeling of loneliness during the day, because it is already in the nature of his job, and he has a little kid, so he hardly gets alone at home. However, he feels the lack of being able to stay alone for some time. On the other hand, he also mentioned how he enjoyed the times when he used to commute, and go to lunch, have conversations, make jokes and laugh with colleagues who are mostly younger than him.

Sometimes he can focus on work to an extent that he can detach from and forget about home, but he thinks that it is not related to the environment. To comment on his experiences similar to the flow state, he says he feels like time is going faster especially when he has tasks with certain a deadline. He is usually satisfied with what he does while working. He enjoys his work and forgets about time when he fully focuses. In general, he knows and feels that he is capable of doing what he is asked to do. However, he thinks that this is because his tasks are usually regulated and repetitive.

He can forget about work when he completes his work and turns of the laptop, if he does not have any particular problem he could not manage. On a normal day where there is no such problem at the end of the workhour, he can have the feeling that he left the “work” at work and came home.

When he stopped working at the end of the workday, he leaves the table; puts the laptop aside; puts folders and papers into the slim bookcase at the opposite corner of the living room. He does not put the laptop into its bag during weekdays in case of that he might be asked to do some work. Then he sits on the couch and gets busy with his phone.

He does not have any applications related to work other than the mail application. Company members usually do not send mails at night. He does not check his mail during off-work hours. If there is something urgent, they call him on the phone.

In terms of negotiations with family members, P6 says his wife is very understanding about the circumstances and she also take care about the kid while he is working. He thinks WFH has many advantages, such as being able to spend more time with his kid, being able to help in emergency situations and so on. However, he also thinks that being together in the same environment all the time causes some nuisances.

He says he would naturally like to have a separate work room, to be able to leave work-related stuff on the table, and to have a space of his own.

B.7 Seventh Participant (P7)

P7 is a 35-year-old architect with a master's degree in architectural history. For the last two years, he has been working as a project coordinator at an intergovernmental organization's development program. He is married and living with his wife, their 7-month-old baby and a cat in a house with 4 rooms and a room size entrance hall in the middle of the house. He and his wife have been living in this house for the last 4 years.

B.7.1 Work Life and Home Life Background

He has been working from home full-time, from 09:00 to 18:00 for 5 days a week and rarely an extra day, for almost 2 years. He defines his job between business development and innovation, as a kind of "jack-of-all-trades" because he is required to learn and apply whatever kind of task is needed by his team during a particular project. For example, he was one of the coordinators of a business and project acceleration program on date of this interview. Accordingly, his work in general involves preparing reports, setting meetings, organizing online events and workshops, data management, communicating with outsider people and organizations and so on, based on requirements of current project and the team. Therefore, types of tasks are changing for him on a daily basis. However, his work usually requires some level of teamwork, so the team is connected through Microsoft Teams all day long. They are always open to communication through text messages, audio calls or video calls. He prefers to turn on his webcam during videocalls. Before starting to work from home, he commuted to work for 2 months in his current job, sharing a room with one supervisor. In his previous job, he has worked as a project coordinator in development of various projects for a municipality for 5-6 years, in an open-plan office.

He likes group work, but prefers working alone in general. He does not prefer working next to other people because of potential interruptions. He likes open-plan offices for being more spacious and more breathable. He can work in open plan offices, but he also thinks that not sharing the room is a major advantage in terms of noise.

When you enter his house, you walk into a room-size rectangular entrance hall with kitchen bathroom areas in front of you, two rooms on right side and 2 rooms on left side. All these four equal sized square-like rooms have their own doors opening to the entrance hall. Furthermore, in both sides, rooms have entrance to the adjacent room. These connections are through very wide doors which can be disassembled so that two

square rooms next to each other can be used as one large rectangular room. P7 utilizes this flexibility of the house, especially with events of change happening in the house like WFH and newborn baby. He is satisfied with the spatial qualities and capabilities of the house, and enjoys current living conditions. Before this place, he experienced living single and sharing houses with another person. He always had his own room in these houses. He shared a dormitory room with 3 other people when he was in university. Before that, he lived in a 3+1 apartment with his mother, father and elder brother. He shared the bedroom with his brother till he is 11 years old, then he owned the room till he went to university. He believes that he is accustomed to have his own space so that he sometimes feels the requirement of solitude. He prefers living with a few people he likes and having a few guests he likes. His wife also works from home, and they are very social throughout the workday.

B.7.2 Participant's Experience of Two Lifeworlds

He designates one of the four rooms as workspace. This room is connected to one designated as the living room. Before, these two rooms were used as one big living room. Now it is redecorated. It has a long desk which two people can work together and a wall-size bookcase behind. He works on his computer at the window side of the desk for more natural light. He also prefers having the bookcase as his background during the videocalls. There is also a sofa which is sometimes used by guests to sleep on. This room and the desk are also used for reading, or his hobbies like crafting paper models or playing with Lego bricks. Photos were taken after some time since this interview was conducted. In photos, this room is separated from the living room by the doors. However, doors were disassembled during the period in which the interview was conducted, and the door to the entrance hall was closed and not used with sofa in front of it. Work room has a French balcony too. In terms of why he likes working in this room and current layout, he elaborates on natural light and being able to see the living room when the baby or the cat is in there.

He uses mainly a computer and a tablet with a noise-cancelling wireless headphones. He can join meetings via tablet or computer and headphones so that when there is an emergency about the baby or the cat he can stand up and run to them while staying in the meeting.

He starts the workday by washing his face in bathroom, then prepares coffee in the kitchen, has a quick breakfast if there are no early meetings. Then he goes to the workspace to begin working by checking work-related messages from last night and early in the morning to plan his day.

P7 and his wife are working, so his mother or wife's mother come by during the day to help with the baby. While he is working, wife is sometimes working next to him on

the same desk or commutes her office and one of the mothers is usually babysitting in baby's room which is placed next to bedroom in other side of the house. In other times, wife is babysitting and occasionally a mother helps too. Being away from the baby's room mostly prevents being distracted by baby's noise. He does not consider this noise as a big problem usually. He remembers that when baby was younger, they were all in the same room most of the time. He was able to do some work, even joined some meetings while baby was crying in his arms.

Now, sometimes he is required to look after the baby for different amounts of time, so he arranges his work plan accordingly when it happens. It sometimes involves going out for a short walk with the baby or feeding the baby. He and his wife negotiate their daily plans every day to support each other, such as caring for the baby in another room when the other spouse needs to join a meeting at a certain time. He sometimes takes a break to clean the house or to cook, but he works after workhours to compensate that. He enjoys having that freedom to make such time arrangements without any interference.

When he is asked about distractions, he compares his WFH and commute experiences. He says, the workspace at home is not dedicated only to the job, it is a space for various things. Sometimes he remembers his other responsibilities, and his mind breaks away from the work. However, organization's premises have an advantage of creating an environment in which you can entirely focus your job. On the other hand, it is easier to break away from work while working from home. For example, he mentions feelings of self-discipline and responsibility to other people which brought by the fact that people can see him and his monitor at the office. However, while he is working from home, he is a little bit more tempted to check news or Twitter, or to respond to a personal phone call.

P7 and his team do not have restricted or planned break schedule. Although it is an international organization his 4 other core team members are all from Türkiye, so they arrange their meetings with respect to each other's needs. They do not schedule a meeting between 12:30 and 13:30 as a code of conduct. Usually, they have a team meeting every workday, for at least one hour, which sometimes goes up to three hours. Because of the changing projects, their daily plans change accordingly. Some weeks they need to do meetings and presentations for outsiders every day while some weeks they have more individual works or group works.

While doing a teamwork, P7 and other team members use Microsoft Teams for video call and other online co-working tools they can simultaneously edit and observe same documents, such as Canva, MS Office and Miro. He says they do not have any troubles or setbacks because of ICTs they utilize. On the contrary, their workflow and business manners take shape around these platforms.

He occasionally skips lunch based on the workload of the day. Other than that, he usually takes 1-1,5 hours for lunchbreak and spends some time on the internet while drinking a cup of coffee after his lunch. He occasionally cooks. For short breaks, he usually goes to the balcony which is on the other side of the house, and which has a more pleasant ambient for taking a break. During these short breaks, he occasionally makes some personal phone calls; plays with the cat; walks around the house with the baby in his arms; or goes out for quick errands like shopping. He never lies down during breaks; he is always moving. He almost always leaves the work room. When interviewer questioned further his reason of leaving the workspace, he says he does not do it just to be able to leave the workspace. However, he says that he mostly takes breaks to do some particular things rather than just sit and relax. When he needs such detachment from work, he turns off the computer, takes a book from the library behind him and reads. He socializes with people in the house while he is working.

When he is asked about whether he can detach from work during the breaks, he further elaborates about the issue. He can detach from work during breaks, because when he works from home, feeling of home always weighs more than feeling of work. Accordingly, since he started working from home, he started to perceive the work different than before. He used to consider work too seriously and too formal, but it changed. Now, he could work on tablet while lying down on the couch. But he says, instead, he tries to fabricate the seriousness and formalness of the work as he works on a computer and a desk. Although, he occasionally joins some meetings through his phone while making coffee in the kitchen. He never feels completely “at work” because he is always aware of the fact that he has such flexibilities.

He almost never socializes with his colleagues other than work-related things, neither during breaks nor after work hours/days. They do occasional small talk before meetings, but nothing more. However, members of the organization teams arrange meetings on different cities designated before the occasion, ever once a couple of months. He says it was similar in his previous job which he used to commute full time. He has never socialized with colleagues after work, although he used to socialize with them naturally during breaks.

He does not have any negative feeling of loneliness during work hours. He says, he used to cut himself out of the environment by using headphones while working in his previous job he used to commute, so he is happy with the current conditions where there are no colleagues around to disturb him.

P7 is further asked about his experiences similar to immersion, liminality and flow while working from home. For that matter, he elaborates on long workshops they have conducted with outsiders. His team and all outsider participants use various ICTs to interact with each other and the shared interfaces. He says he was able to detach from the mind-set of being at home, and he felt fully integrated with the task at hand, he felt

as if he is “there”. Interviewer questioned further and he elaborated on what he means by “there”. He says he did not feel as if the space around him changed, and he did not feel as other people came to his home. However, he felt like they were in the same environment in terms of ideas rather than physical environment.

In terms of permanent liminality, he says he is familiar with this idea from conversations he made with other people working from home. Accordingly, he is not depressed by the idea of never being fully at home or at work. Furthermore, he feels advantageous because of that. Nevertheless, towards the end of the interview, he admits that it is certainly exhausting. He says, maybe he will be able observe its consequences in future, but he is aware that his sleep is different since he started working from home.

He frequently remembers and thinks about to-do-lists in the off-hours even when there is no problem about work. Considering this, he thinks he is a little bit workaholic, so that he always tries to occupy himself with other things and make efforts to cut off the ideas about the work. He gets mails and notifications on his phone after work hours. He always sees them, but he does not check them unless there is an urgent issue.

B.8 Eighth Participant (P8)

P8 is a 33-year-old Political Science and International Relations graduate. For the last 2 years, she has been working completely from home (from the start) as an executive customer relation specialist at a global e-commerce company. This is her first job of this occupation. She is not married and has been living with her cat in a 2+1 apartment in İzmir for the last 2 years. Her schedule of work hours is from 08:00 to 18:00, 5 days a week. However, she is temporarily allowed to work from 10:00 to 20:00 because of her “personal struggles including insomnia” as she elaborated.

B.8.1 Work Life and Home Life Background

She enjoys 08:00-18:00, but she prefers 10:00-20:00 more because she has time for preparing for the day after she wakes up and before starting work. Most of her work does not involve human interaction. She has scheduled Monday (short, work-related) and Friday (long, social and motivational) meetings with co-workers. Once every few days, she might need to make a phone call with a customer. She interacts with coworkers all day long, via an audio and text-based communication software where everybody is always online. She enjoys being a single contributor in her daily tasks, but she also enjoys having human interaction as she considers it an important requirement for herself. Before this job, she had other jobs such as: short term physical

jobs, yoga trainer, and working in a call-center which is her only office job that she needed to commute physically. That call-center job also provided her the experience of working in cubicles in the form of long desks with dividers between people in a crowded large floor which she has “hated”.

She had many experiences of sharing a house with one person (with different people, different houses like 3+1 and 2+1's, for different periods of time) where she always had her own room. She lived alone in a tent for 8 months while she was working for a hotel in a holiday resort; lived in her own room in a shared houses without any shared living room area for 11 months in Greece. She also had experiences of living alone in 2+1 and 1+1 houses. Once she had lived in a government dormitory room (for 3 months) that she shared with 5 other people. In her childhood, she lived with her mom, dad and sister (1 year older) in a 3+1 family house where she had her own room. She also experienced different living situations in the same family house, such as living with mom and dad for 2 years in her youth; and living with mom for 2 years in her adulthood.

She enjoys the house. She can separate the living room into two zones, office and living. She is happy that she has this option. In terms of social interactions, she elaborates on that she normally has social anxiety to an extent, which becomes problematic for her daily life sometimes, especially when she needs to be in crowded spaces. However, she enjoys having 2-3 guests once a week. Furthermore, she tells that her performance increases during the days that she has one or two guests who work or study in the same room and that she enjoys having human interaction during the short breaks. Moreover, she tells that she struggles living alone and working from home at the same time. For example, she explains, she cannot find enough time and motivation for grocery shopping and cooking because she lives alone and works from home 10 hours a day. She says she eventually gets too hungry and orders from local restaurants, which she would not prefer or enjoy.

B.8.2 Participant's Experience of Two Lifeworlds

She spends most of her time in the living room. Other than work hours, household chores and sleeping, she spends her time in the living zone watching movies on her personal laptop; playing games or checking social media on her phone; having guests; eating and so on. In the office zone, she has a desk and a tall coffee table that she uses as an extension of the setup. She has two monitors. One is on the tall coffee table and is connected to the “work” laptop what she uses actively most of the time she works. The other monitor is connected to a Gringotts computer which is a small rectangular box physically hanging on the backside of the monitor. Gringotts computer is a secure computer which is the only device that she can use to connect to the company's main

database, and it can be used only for this purpose. She does not use these computers for anything personal. She has a mouse and a keyboard which are connected to both computers via a switcher device. She has an adjustable ergonomic chair bought by the company. Although she is comfortable while working, she says that it is not something she would buy or put in her house in terms of style if it was not for the job.

She does not have her work e-mail or the main internal communication application of her work team on her smartphone. In her off-work hours, she does not turn on her work computers and does not interact with anything related to work. Work-related WhatsApp groups are muted too. She says, only thing that might remind her about work in off-work hours is incomplete tasks if she could not have a satisfactory productive day.

Rarely, she and the rest of her team commute to come together for few days. She says she enjoys having human interaction and being able to have instant feedback and exchange of ideas during these periods. When she compares this to WFH condition, she says working from home is like “fighting the world alone”.

Her living room is divided into two zones. According to her, it is a large living room, and these two zones are also physically distant. She calls them “living” zone and “office” zone. Main entrance of the house and the main circulation area open to the living zone of the elongated “L” shaped living room in a manner that you do not have to go through the office zone if you do not want to enter that zone. Therefore, the office zone is more secluded than the living zone. For example, when you want to use the toilet, you need to leave the office zone, go through the living zone, main entrance (which has direct connection to kitchen), and a corridor which connects to bathroom and bedroom. She says that even having a tiny break to go to the toilet can help to get her head together sometimes.

She explains that she can separate two zones in her mind too. When she wants to rest, she can go to the living zone and sit on the sofa which is not facing the office zone but the opposite direction, and she reports that she can even feel as if the office zone is not there at all. She adds, when she comes to the living room on weekends, she does not feel as if she came to an office space. She has a “little” guest room too, but she didn’t want to use it as a workspace. Instead, she wanted to be in a more spacious room because she spends most of her time working.

She never enters the office zone when she is not working. She never does work-related things and never brings work-related objects out of the office zone. Likewise, she does not have any non-work-related objects in the office zone.

A long time ago, she used to have her workspace in the current “living zone” facing the the only window that provides some sea view. Although, she has some sky view in her current “office zone” that she is happy with. She elaborated further on that

period when she used to have a different spatial composition that you need to go through the office zone to arrive at the living zone. She had also some personal issues during that period. Accordingly, she was severely depressed and not very functional. Beyond the other reasons of her depression, not being able to do her job during that time was also a “huge burden” for her. She says, the reason why she was not going to the living zone or the living room during that period was that the office was in the living room. She always had to go through the office zone to arrive at the living zone. She says doing this during the off-work hours was affecting her psychology negatively.

Now that she does not have the office zone “on the way” to living zone and the office zone is secluded in the far end corner of the space, she never feels “at work” during the off-work hours. According to her, designating some rules like not having “work” e-mail or communication application on her phone also helped.

She says, the office zone is more like a real office that she can get more comfortable than a real office, or as in her own terms “an office that you can burp”. Other than that, she is still capable of “wearing... (her) ...professional identity” and act accordingly when she is working in the office zone, including not responding to doorbell or a ringing phone, or not talking with a guest (study/work partner) while working and so on. She says, being in the office zone is not exactly the same as being in a real office, but she can have a certainly different mind-set than being in the home. According to her, it was hard to get used to it, but after some time it got easier to switch between two separate mind-sets by the help of the spatial and behavioral changes she has made.

When the interviewer asked, “How does your work environment make you feel?”, she responded “Comfortable, but definitely not cozy.”. She says, work is something she “has to do”, not something she prefers or enjoys, and that place reminds her of these feelings. She also adds that the office chair, all those electronic devices or the black color that is prominent in that space do not reflect her lifestyle nor her esthetic preferences.

In workdays, she starts the day by washing her face, then she starts the “work” computers and logins to work networks. She takes her French press while waiting computers to login. Then she drinks her coffee and smokes a cigarette while checking her e-mails in the office zone, which takes 40-45 minutes. Then she takes a break mainly to get away from the office zone for several minutes; and she plays a game on her phone in the living zone or walks around the house, or goes to toilet, or does particular practical few-minute-long household chores she enjoys (e.g.: emptying the dishwasher). She says she tries to create a “mind-space” by staying away from the office zone on purpose. Because if she does not get away, she starts to feel “suffocated” and “confused”. She generally takes her breaks when she starts to feel as such. She says it might be caused by that it was hard for her to get used to her current work

discipline because she does not have very much corporate experience. She started to practice such tactics based on her therapist's suggestions, and she found it highly helpful since then. She applies this tactic whenever she needs throughout the day.

Additionally, she insists that she never takes a break just for doing household chores. She does not do time consuming chores like cleaning the house during the workdays. She thinks her main distraction is caused by her "monkey brain". For example, when she is alone, she sometimes finds herself doing extra household chores after little distractions or breaks too. However, when there is someone working or studying around her, she can easily turn back to work.

She has a one-hour lunch break. In general, she orders her food before the break. During the lunch break, she has lunch at the dining table, and she usually takes a 30–40-minute nap in her bedroom. Sometimes she takes a shower. She usually makes a phone call to her girlfriend, mother or sister. However, she does not spend the lunch break with her usual break activities. When she does so, she does not feel rested or refreshed as much as she feels after her usual lunch breaks.

She leaves the office zone the moment her official work hours end, and whenever she takes a break. She never spends her time in the office zone when she is not working.

Her cat does not interact with her during work hours as much as usual.

She never feels fully rested or refreshed after any kind of break. She attributes this to a couple of reasons. Firstly, she does not leave the house very often, even on weekends. Secondly, she cannot totally forget about work during the breaks, and she is being aware and even counting the remaining time till the break ends. She is stressed if she spends an extra minute for lunch break, even though nobody gives any notice if she does. She attributes this stress to her shortcoming experience of corporate work discipline.

B.9 Ninth Participant (P9)

P9 is a 28-year-old mechanical engineer. For the last 4 years and 6 months, he has been working as a technical product management expert in the product management department of a global engineering and technology company focused on white goods. This is his first job within this occupation. He is not married and has been living with his father, mother and cat in a 3+1 apartment in İstanbul for the last 5 years. He has his own room. He has been working from home in this job for the last 3 years. First 1,5 years, he has worked completely from home. For the last 1,5 years, he has been working hybrid. As his colleagues in the company, he is allowed to decide where he will work. He tells that he works from home around 40% of his workdays, and

commutes to the office for the rest of his workdays. His current schedule of work hours is 08:00 to 17:30, 5 days a week.

B.9.1 Work Life and Home Life Background

He prefers starting and ending work earlier. When he commutes, he works within cubicles in the form of 4-people-clovers with dividers between people, on a large floor. More than half of his job involves social interaction with other members of the company. He prefers teamwork rather than individual work, and enjoys current conditions of cubicles and open office plan.

From recent to past, he has lived alone in a 1+1 for 3 years; lived with 1 person in a 2+1 shared house for 1 year (had his own room); again lived with 1 person in a 2+1 shared house for 1 year (had his own room); shared a room with 1 person in a dormitory for 1 year; lived with mother and father for 4 years in the same apartment they live currently (had his own room); and he has lived with mother, father and elder brother in the same apartment during his childhood (around 13 years), sharing a room with his brother.

He says he would prefer living alone instead of with his parents. He prefers more personal space, more personal time, and freedom of what-when-how to do in terms of home life. He thinks that the current apartment is mostly enough and efficient. On a daily basis, he has 7,5 hours awake time at home. He spends 2,5 hours with family regularly, and spends the rest of this time alone. He mostly does not and cannot have personal guests. His brother's family visits most days of the week. And once or twice a week, they (as a family) have other guests. He describes himself as a social person, but prefers mostly being alone when he is at home. He notes that he considers home as a personal space and prefers meeting with people outside. In terms of the current conditions of parents' house, he says that he doesn't mind guests because his room is a separate and personal space.

Because of the company's transition to hybrid work model, they started to have almost all meetings online. Because, on any given day, around half of the workers are working from home. Therefore, everybody who commutes that day still joins online meetings from their desks instead of using physical meeting rooms. P-9 points out that they cannot have face-to-face meetings most of the time. Additionally, there is background noise all the time because you join an online meeting on your desk while some other workers are working, joining other meetings or talking to each other around you. He also points out that company had an advantage in terms of time management because they have a large campus, and people from different departments lose time when they leave their respective building to meet others in a separate building in other side of the campus.

B.9.2 Participant's Experience of Two Lifeworlds

He spends most of his time in his room. Briefly, he has a bed, a desk, an adjustable chair, a work laptop, a personal computer, a few bookshelves and a wardrobe. He has a balcony and a few windows on the same side of the rectangle room. Most of the meetings, he is not required to turn on his camera, so he can smoke in balcony while joining meetings. That's why he placed his desk close to this side of the room. He has his bed next to the desk. He sometimes uses his bed to lean his legs while working from the desk and chair. He also uses his bed to lay down and watch movies and tv shows from his personal computer placed on the desk. He likes playing computer games, and for this, he uses his personal computer, desk and the same chair. Including work hours and breaktimes, sometimes he interacts with comic books and action figures placed on the bookshelves which are above the desk.

There is also cat's litter box and food, and some other objects like ironing board stored in the room for household chores. Including work hours, sometimes his mother comes to take such objects or to do ironing in the room. His father also sometimes visits to take tools set or other objects stored in the balcony for repair works. As P-9 explains, they have a kind of agreement among themselves that while parents are generally careful about not interrupting when he is busy, P-9 also has to inform them before joining a meeting so they can take stuff they need for chores and so on. Thus, he does not see this as a problem.

Generally, he puts "work" laptop and notepad to a bag at the end of the workhours, because he does not like to see these work-related objects around during his off-hours. He says that seeing such objects causes him to think about the next day's work. He starts his workday in bed, turning on the work laptop and entering the company's online systems which takes some time. Then he tidies up the desk enough to put work objects on the desk and continues working with his regular setup there.

During work hours, sometimes he is asked to do a few outside errands or a few household chores. During the one-hour lunchbreak, he turns off the laptop, and has his lunch in kitchen or sometimes on his desk while watching YouTube or Netflix on his personal computer; or leaves home and goes to gym.

He usually feels "at home" while he is working from home. He tells that he decides his office and home days according to types of work he needs to do, how tired he is, and how much he needs to socialize. He prefers doing some of his work in the office because his job requires communication mostly and he prefers face to face communication. However, for example, when he needs to join long online meetings (especially ones that he will not be doing any presentation) he prefers being at home, because he can meet his biological needs at bathroom, kitchen or balcony while he listens the meeting via noise-cancelling wireless headphones given by the company.

His room is close to the bathroom and kitchen. The range of his wireless headphone is enough to do such things at home. But connection fails when he tries to do such things at office, so he has to be sitting at his desk for hours during such meetings.

He has almost nothing personal on his work laptop, and nothing work-related on his personal computer. He used to have nothing work-related except mail application on his personal phone either. However, several months ago he got promoted and the company gave him a new smartphone that he needs to have applications like Microsoft Teams (most used communication tool between workers) on his phone. He says he has been trying to use this phone as a personal phone rather than carrying two phones all the time. But he admits that he could not get used to it yet. He cannot stop himself and check what is going on about work when there is a work-related notification, even though company insist on that they do not want workers to interact with any work-related thing during off-hours, and they have regulations about this.

When the author asks about what kind of activities P-9 attributes his room to, he talks about playing computer games as it is his favorite activity. He mentions his adjustable chair, personal computer setup with two monitors, and how much he enjoys this setup. When the author asks about how participant feels when he enters his own room during workhours, P-9 responds that he sometimes has negative feelings because of having to work while he wants to play computer games. Although he adds that such feelings are not usual, he also admits that he rarely has a break to play a game for 15 to 30 minutes.

He has very short conversations with people at home during work hours. He also does not socialize (out of work context) with other workers very much while working from home, as he explains that he already works from home on days he is tired and does not want to socialize very much.

At the end of the work hours, he leaves the room as soon as possible. Although he usually leaves the room to go to kitchen and have dinner with his family, he admits that even if it is not for dinner, he feels the urge to leave the room. He adds that he sometimes has that feeling during work hours too.

He experiences the feeling of loneliness during work hours. He has the feeling of being “at home” and “at work” at the same time, and he says this feeling sometimes affects his work performance negatively.

APPENDIX C

ACTOR-NETWORK DIAGRAMS



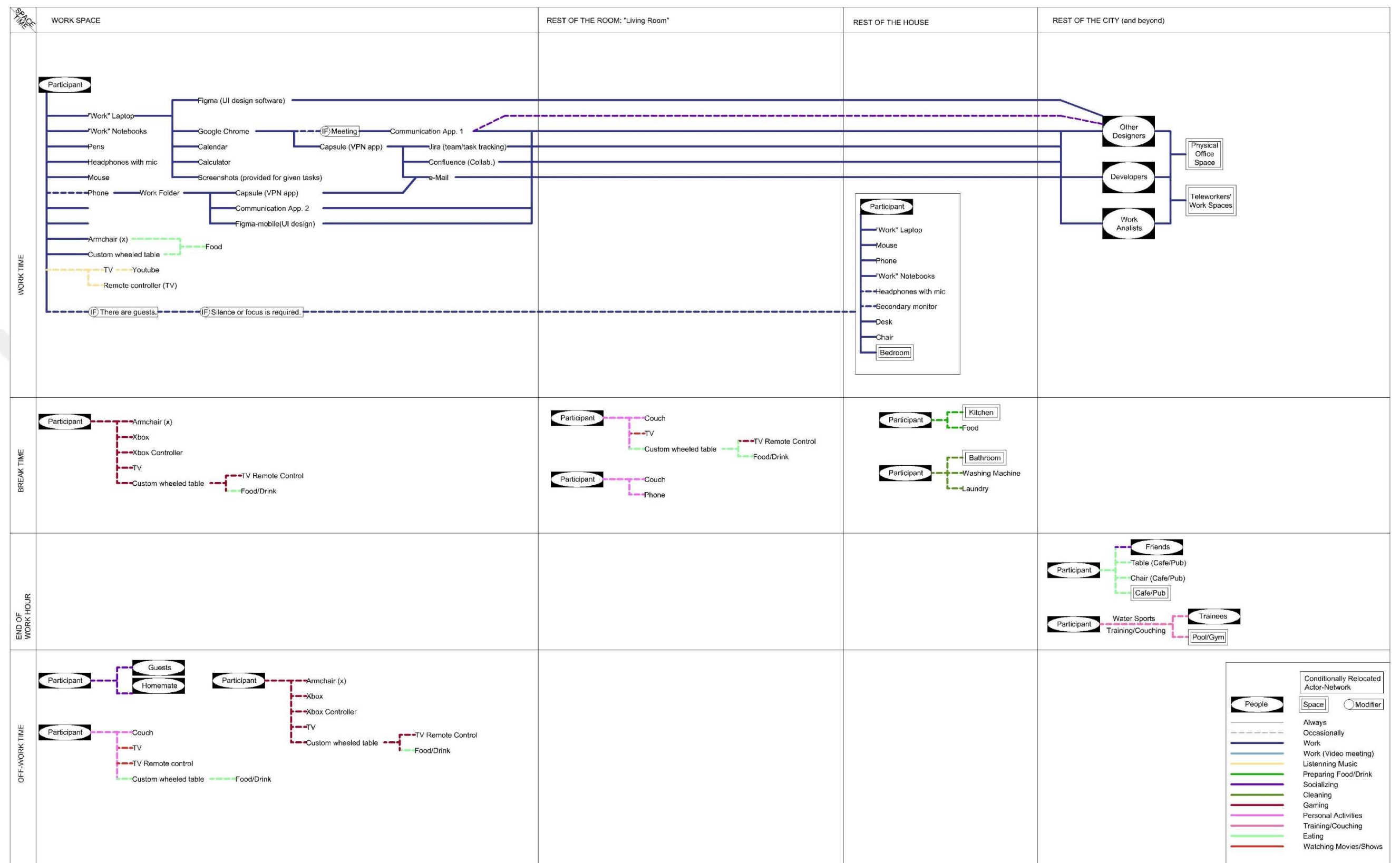


Figure C.1 Participant-1's actor-network diagram.

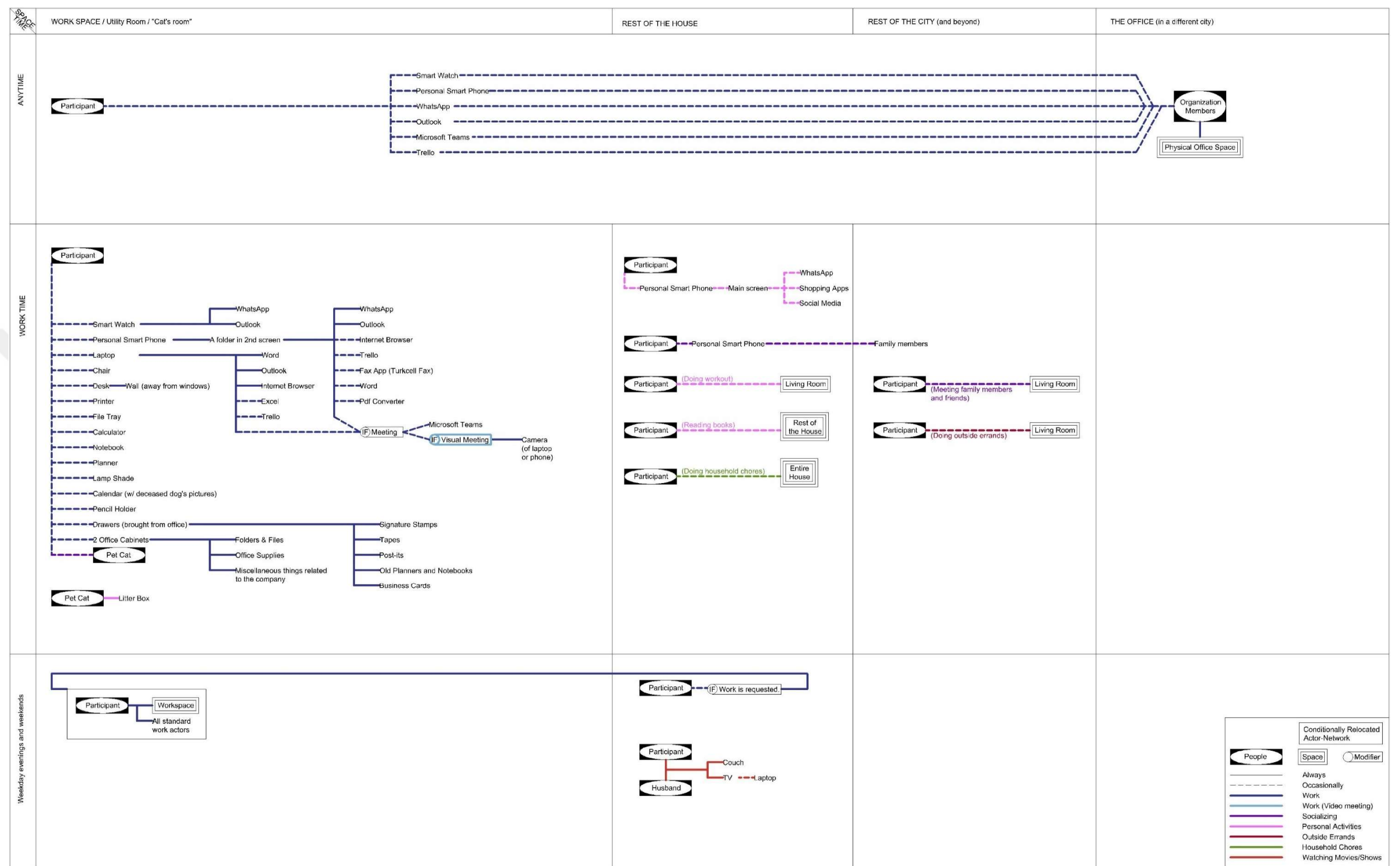


Figure C.2 Participant-2's actor-network diagram.

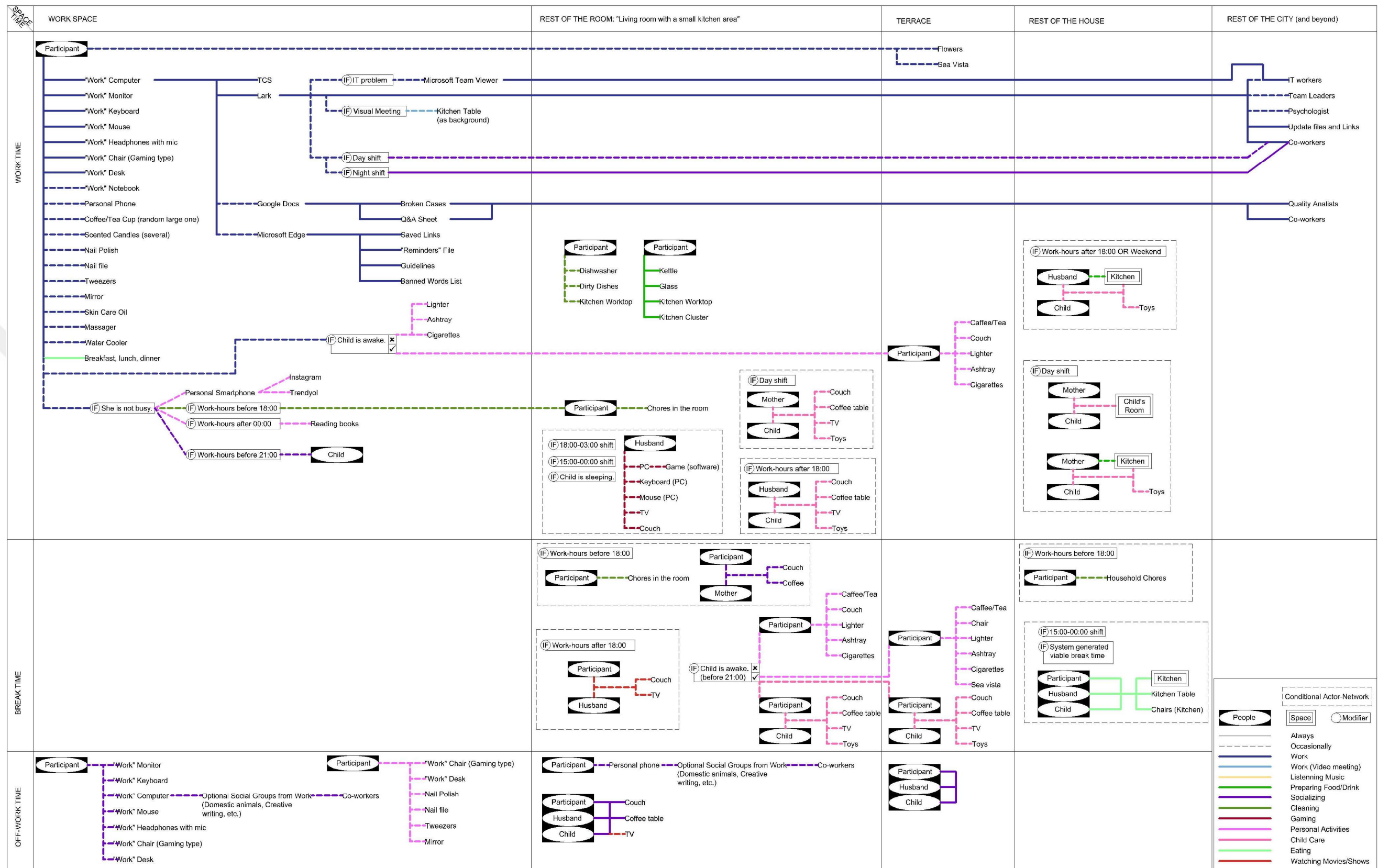


Figure C.3 Participant-3's actor-network diagram.

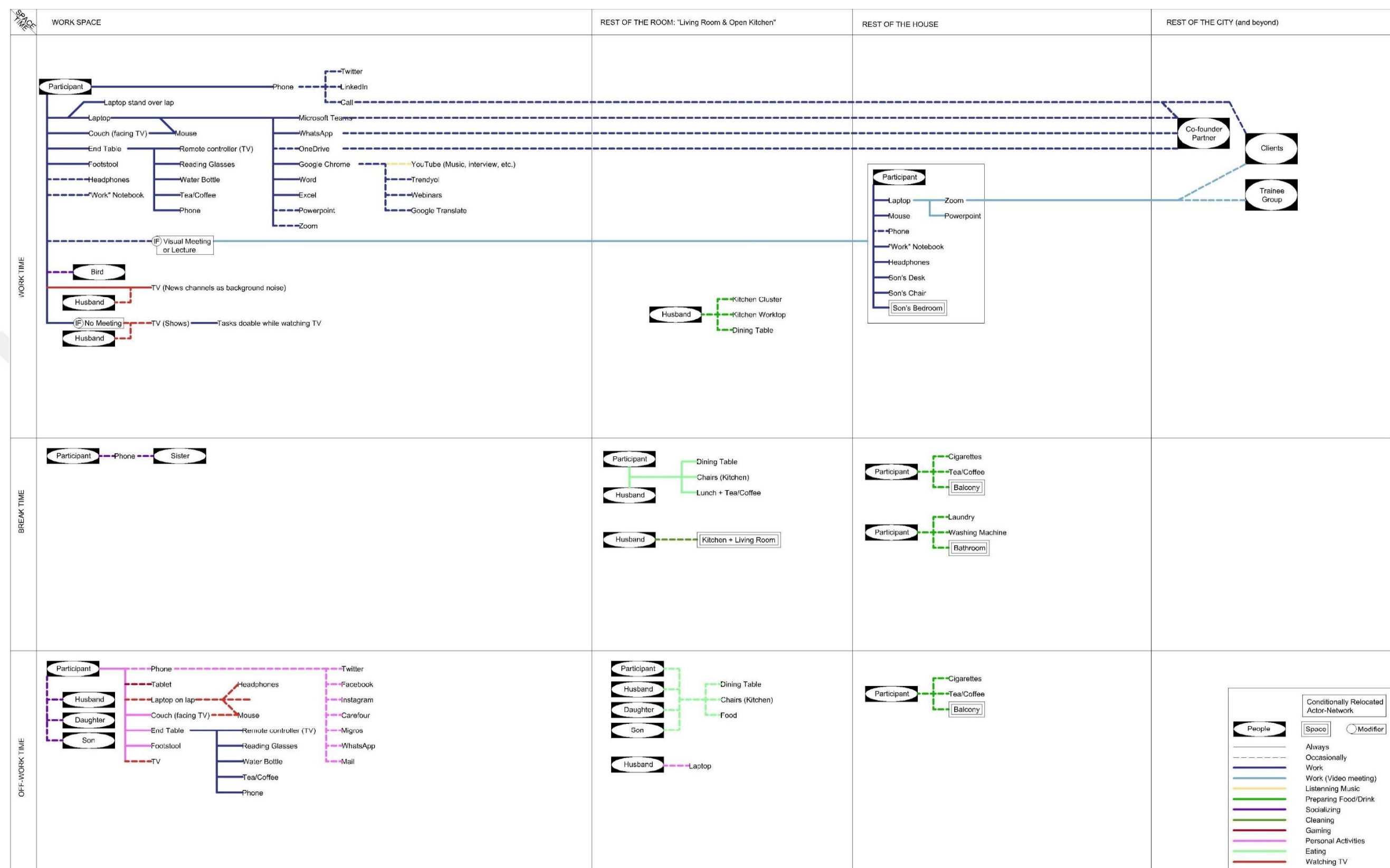


Figure C.4 Participant-4's actor-network diagram.

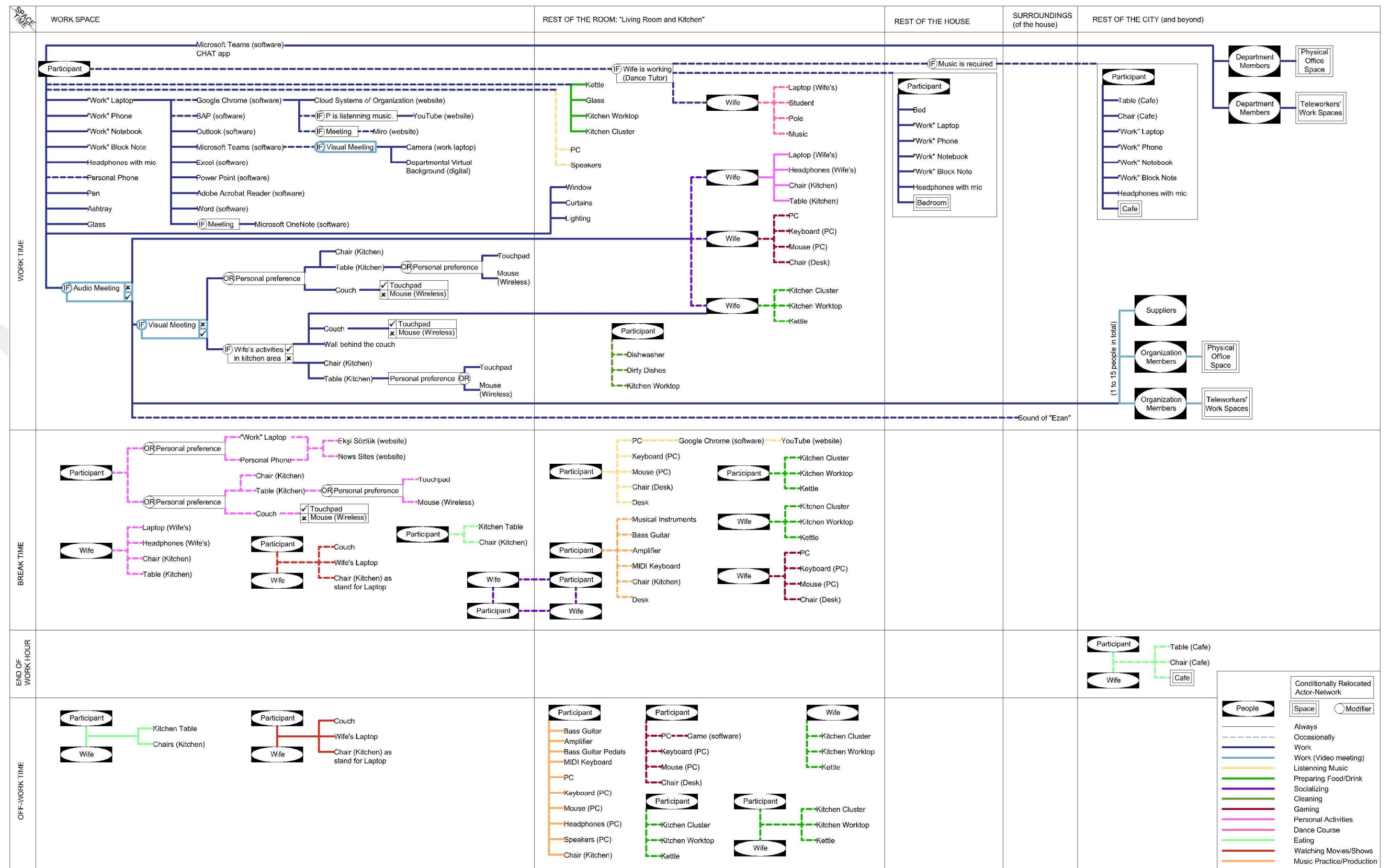


Figure C.5 Participant-5's actor-network diagram.

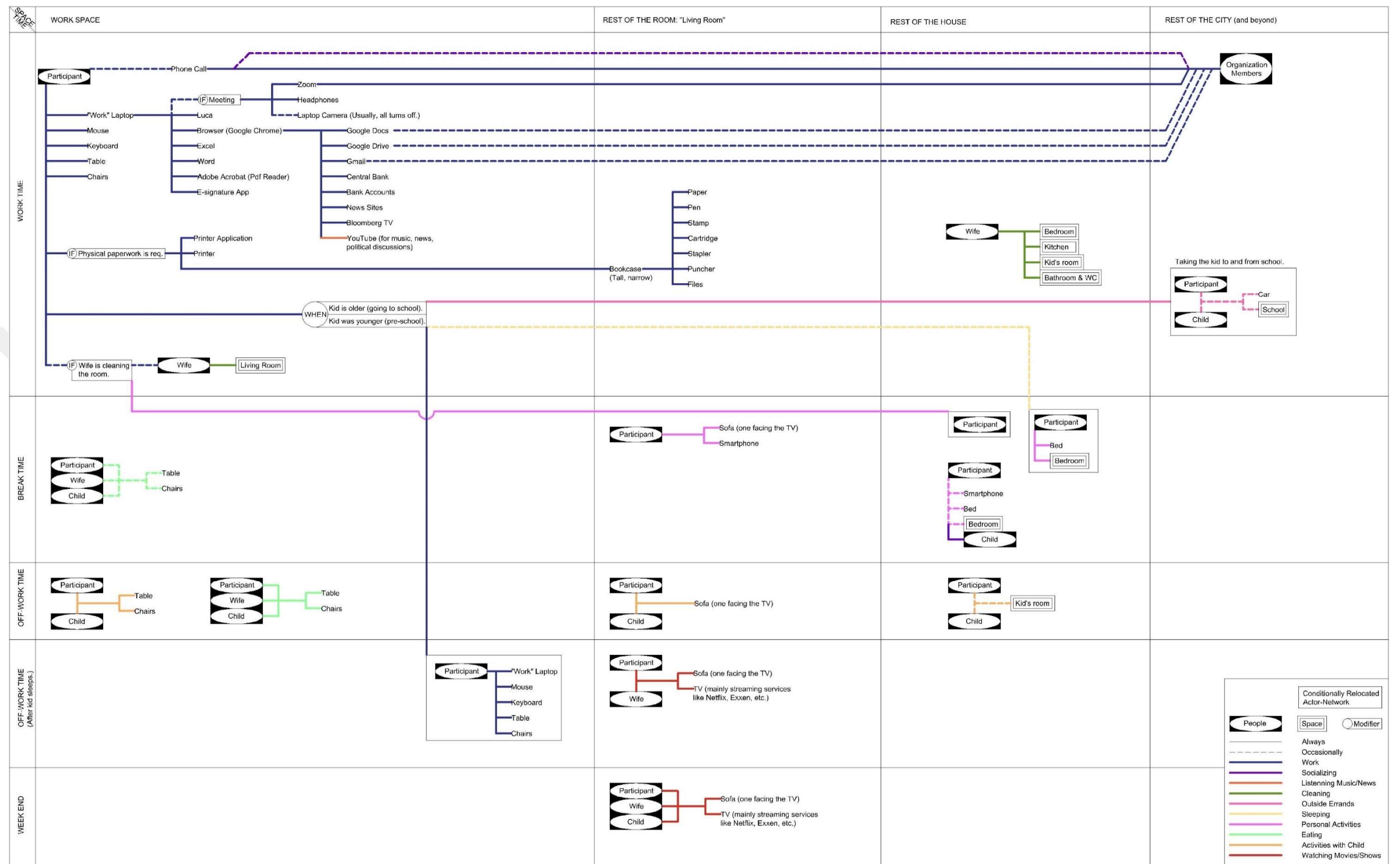


Figure C.6 Participant-6's actor-network diagram.

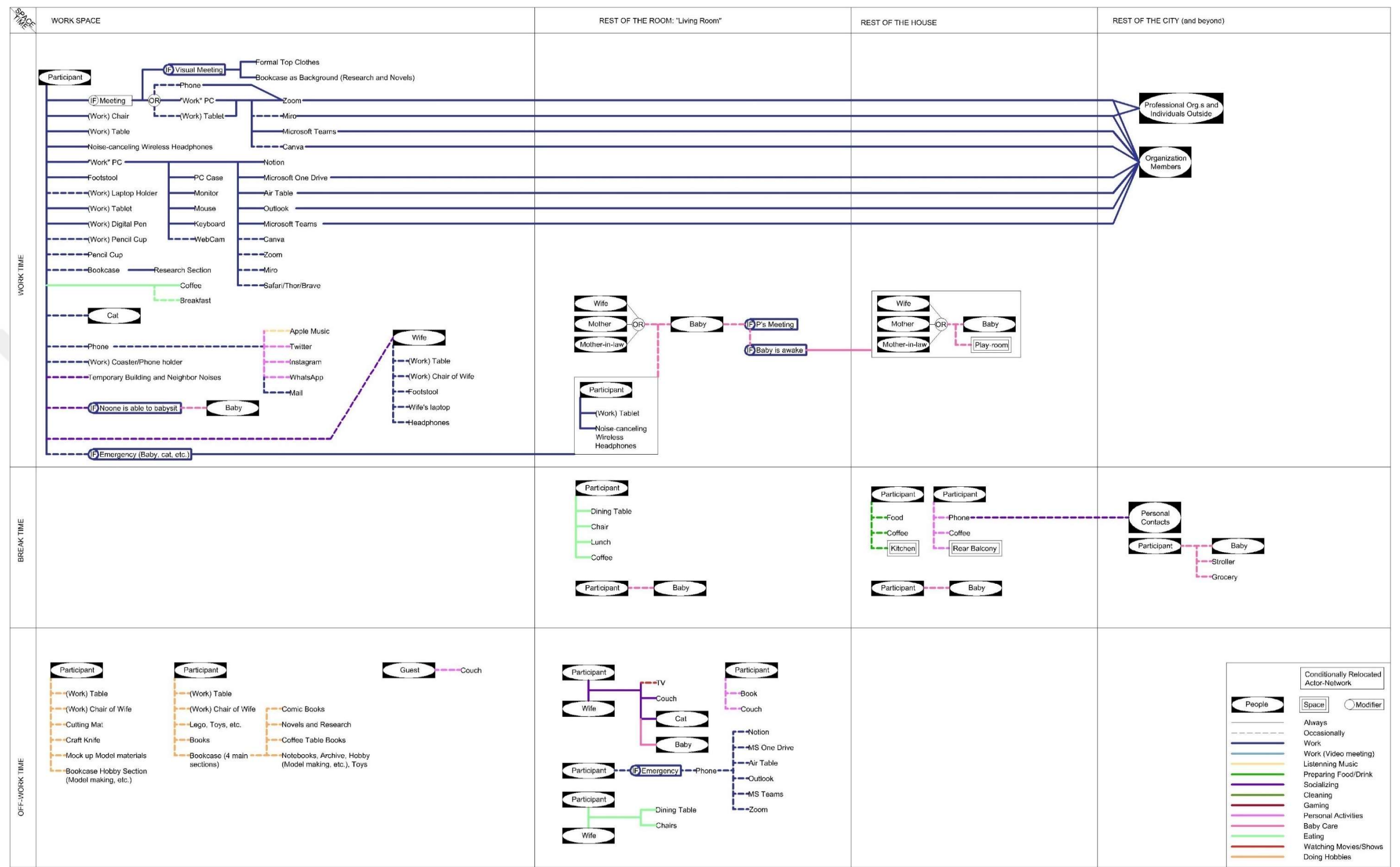


Figure C.7 Participant-7's actor-network diagram.

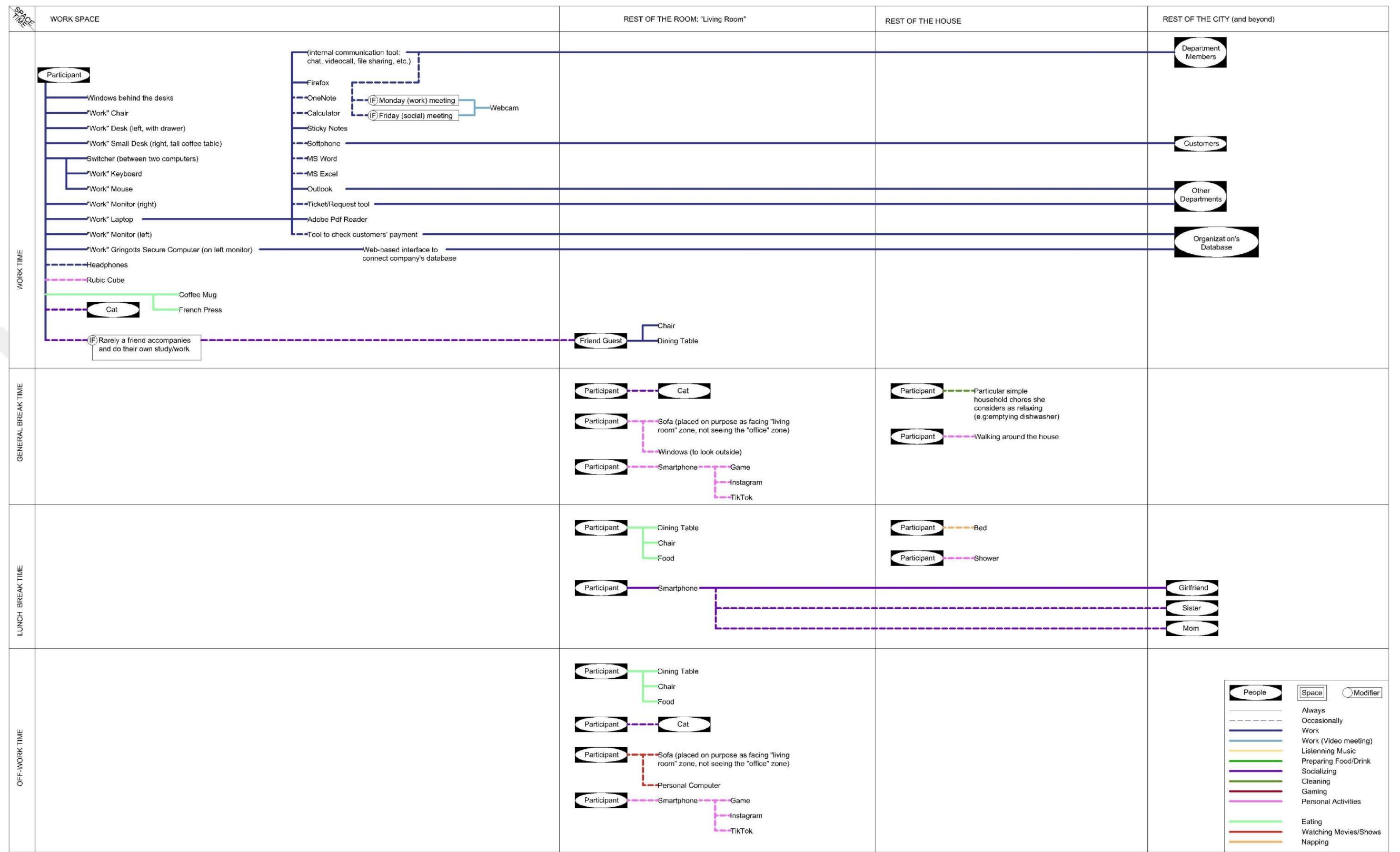


Figure C.8 Participant-8's actor-network diagram.

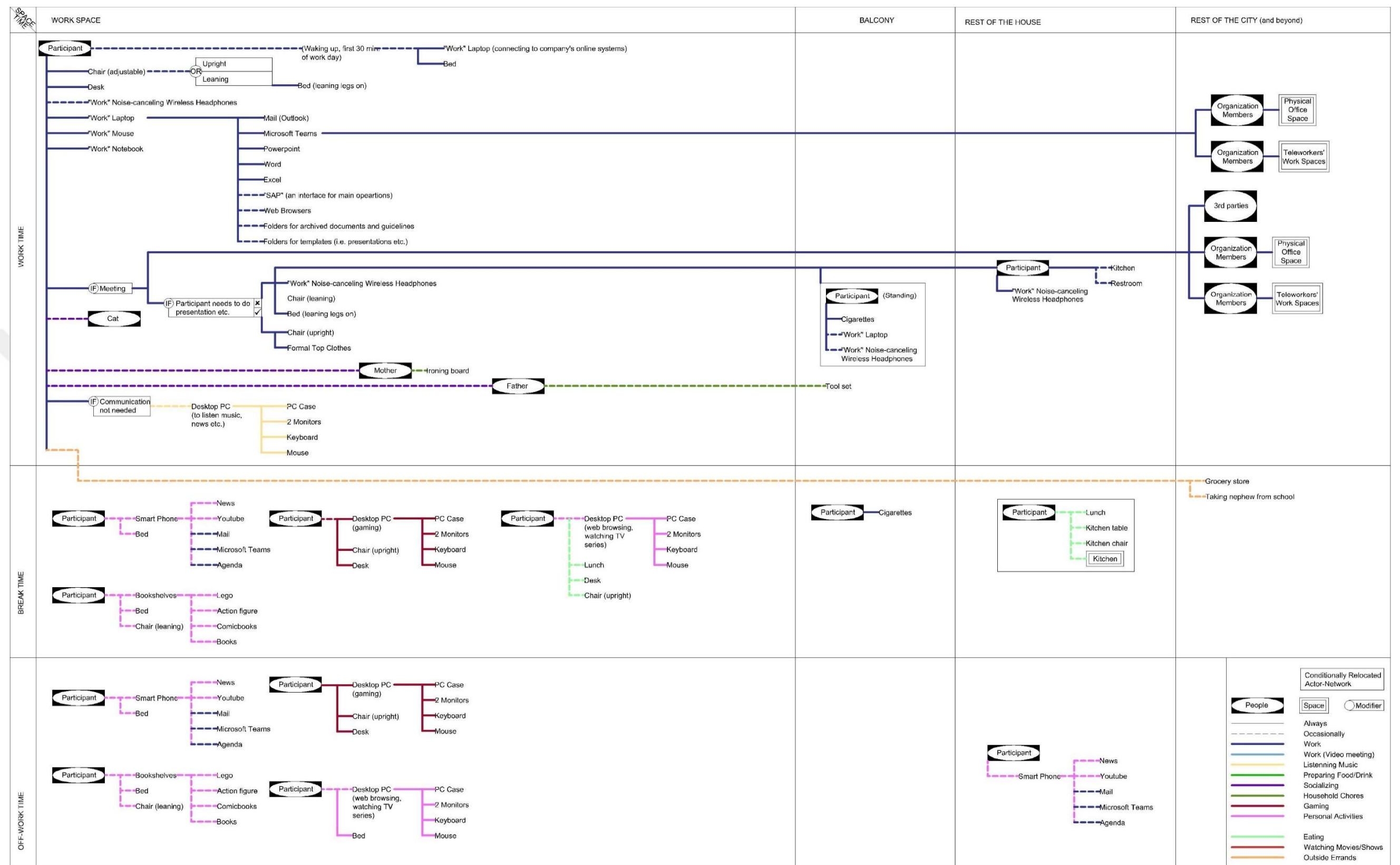


Figure C.9 Participant-9's actor-network diagram.

APPENDIX D

SURVEY QUESTIONS

Evden Çalışma Durumunda Mekânsal ve Sosyal Etkileşim Anketi

Bu araştırma, ODTÜ Mimarlık Fakültesi Yapı Bilimleri Doktora Programı öğrencisi Orkun Sönmez tarafından, Prof. Dr. Arzu Gönenç Sorguç danışmanlığındaki doktora tezi kapsamında yürütülmektedir.

Araştırmanın amacı; bir kurum veya kuruluşa bağlı olarak evden çalışan insanların evde ve özellikle çalışma mekânında, mekânları ve objeleri nasıl kullandığına, ayrıca bu mekanlarda mesai ve iş-dışı zamanlarında nasıl davrandıklarına ve nasıl hissettiklerine dair bilgi toplamak, ve bunların iş ve ev hayatına etkisini anlamaktır.

Araştırmaya katılımınız tamamen gönüllülük temelinde olmalıdır. Çalışmada, sizden kimlik veya kurum belirleyici hiçbir bilgi istenmemektedir. Cevaplarınız tamamıyla gizli tutulacak, sadece araştırmacılar tarafından değerlendirilecektir. Katılımcılardan elde edilecek bilgiler toplu halde değerlendirilecek ve bilimsel yayımlarda kullanılacaktır.

Anket, genel olarak kişisel rahatsızlık verecek sorular veya uygulamalar içermemektedir. Anketi cevaplama süresi yaklaşık **20-30 dakikadır**. İlginiz ve ayırdığınız zaman için şimdiden teşekkür ederiz

Araştırma hakkında daha fazla bilgi almak için Mimarlık Bölümü öğretim üyelerinden Prof. Dr. Arzu Gönenç Sorguç (E-posta: [REDACTED]) veya doktora öğrencisi Orkun Sönmez (E-posta: [REDACTED]) ile iletişim kurabilirsiniz.

Figure D.1 Introduction page of the survey conducted for this thesis.

1. KISIM: Temel sorular

1 - Yaşınız *

Your answer

2 - Yaşadığınız şehir *

Your answer

3 - Hayatınızın çoğunu geçirdiğiniz ve/veya kültürüne en çok alışkın olduğunuz ülke *

Your answer

4 - Biyolojik cinsiyetiniz *

☐ Kadın

☐ Erkek

☐ Diğer

5 - Eğitim durumunuz (en son bitirdiğiniz okul) *

☐ İlköğretim

☐ Ortaöğretim (Lise)

☐ Üniversite

☐ Yüksek Lisans

☐ Doktora

Figure D.2 First part of the survey conducted for this thesis. Demographics, current job, living conditions.

6 - Evden çalışmakta olduğunuz kurum veya kuruluştaki göreviniz/işiniz *

Your answer

Evden çalışmakta olduğunuz kurum veya kuruluşun...
(7, 8 ve 9. sorular bu ifadenin devamıdır.)

7 - ...Sektörü (kamu, online ticaret, eğitim, vs.) *

Your answer

8 - ...Menşei (ülke) *

Your answer

9 - ...Çalışan sayısı *

	10 veya daha az	10-50 arası	50-250 arası	250'den fazla
.	☐	☐	☐	☐

10 - Yaşadığınız yeri sizden başka kaç kişiyle paylaşıyorsunuz? *

Your answer

Figure D.2 (continued)

11 - Yaşadığınız yeri kimlerle paylaşıyorsunuz? (Birden fazla işaretleyebilirsiniz.) *

- ☐ Eşim (partnerim)
- ☐ Çocuk (0-6 yaş)
- ☐ Çocuk (7-17 yaş)
- ☐ Yaşlı (65 yaş ve üzeri)
- ☐ Annem ve/veya babam (veya annem-babam gibi gördüğüm insanlar)
- ☐ Diğer; samimi olduğum insanlar
- ☐ Diğer; samimi olmadığım insanlar
- ☐ Yalnız yaşıyorum.

12 - 3 boyutlu sanal gerçeklik uygulamalarını ne sıklıkla kullanıyorsunuz? *

Asla	Çok nadir (Yılda bir kez)	Nadiren (Yılda birkaç kez)	Ara sıra (Ayda bir kez)	Sıklıkla (Ayda birkaç kez)	Genellikle (haftada bir kez)	Her zaman (En az birkaç günde bir)
☐	☐	☐	☐	☐	☐	☐

Eğer 3 boyutlu sanal gerçeklik uygulamaları ile deneyiminiz varsa aşağıdaki ifadeye (13) karşılık gelen derecelerden size uygun olanı seçiniz. Yok ise boş bırakabilirsiniz.

13 - 3 boyutlu sanal gerçeklik uygulamalarını kullanırken kendimi kaptırıyor, tamamen "orada", yani o sanal dünyanın içerisinde gibi hissediyorum.

Hiç katılmıyorum (%0)	Çok az katılıyorum	Az katılıyorum	Orta seviyede katılıyorum (%50)	Büyük ölçüde katılıyorum	Çok büyük ölçüde katılıyorum	Tamamen katılıyorum (%100)
☐	☐	☐	☐	☐	☐	☐

Anlaşırlılığında problem olduğunu düşündüğünüz sorular varsa lütfen numarasını yazınız.

Your answer

Figure D.2 (continued)

2. KISIM: Evdeki çalışma alanınız, fiziksel mekân, objeler ve insanlarla olan etkileşiminiz ile ilgili sorular içerir. Lütfen son iki aylık deneyiminizi düşünerek cevaplayınız. Sorularda geçen "çalışma alanı", "çalışma ortamı", "çalışma mekânı" ifadeleri ile kastedilen şey: çalışırken düzenli olarak kullandığınız ve sizin "çalışma alanım" diye tabir edebileceğiniz mekân veya mekânlardır. Bu mekân çalışırken kullandığınız masa, sandalye, sehpa, koltuk, dosya dolabı gibi mobilyaların; bilgisayar, kulaklık, ajanda, evrak gibi objelerin en azından mesai süresince bulunduğu; bir odanın belirli bir bölümü veya tamamı olabilir. Eğer evde aktif olarak kullandığınız ve "çalışma alanım" şeklinde tanımlayabileceğiniz birden fazla mekân var ise; lütfen bu mekanların ve bu mekanlarda geçirdiğiniz zamanların tamamını dikkate alarak soruları cevaplayınız.

1- Kısa molalar veya öğle arası gibi zamanlar dışında, günlük toplam mesai saatinizin ortalama ne kadarında çalışma alanınızda (bilgisayar başında, vb) oluyorsunuz? *

Asla (%0)	Çok az	Yarisından az	Yarısı (%50)	Yarisından fazla	Çoğunlukla	Her zaman (%100)
☐	☐	☐	☐	☐	☐	☐

Evdeki ana çalışma alanınızı ve evden çalıştığınız mesai sürenizin bütünü düşünerek, aşağıdaki (2-6) ifadelerin altında bulunan derecelerden size uygun olanı seçiniz.

2 - Evdeki diğer insanların yaptığı aktivitelerden dolayı ana çalışma alanımdan başka bir yerde çalışmaya devam etmek veya çalışmayı bir süre durdurmak zorunda kalıyorum. *

Asla (%0)	Çok nadir	Nadiren	Ara sıra (%50)	Sıklıkla	Genellikle	Her zaman (%100)
☐	☐	☐	☐	☐	☐	☐

Figure D.3 Second part of the survey conducted for this thesis. Work immersion and home immersion.

3 - Evde çalışma alanı/köşesi/odası olarak belirlediğim herhangi bir mekan yok, *
sürekli yer değiştiriyorum.

Hiç katılmıyorum (%0)	Çok az katılıyorum	Az katılıyorum	Orta seviyede katılıyorum (%50)	Büyük ölçüde katılıyorum	Çok büyük ölçüde katılıyorum	Tamamen katılıyorum (%100)
☐	☐	☐	☐	☐	☐	☐

4 - Çalışmama ara verip, evle ilgili veya evde yaşayanlarla ilgili ihtiyaçları karşılamak gibi şeyler yapıyorum. *

Asla (%0)	Çok nadir	Nadiren	Ara sıra (%50)	Sıklıkla	Genellikle	Her zaman (%100)
☐	☐	☐	☐	☐	☐	☐

5 - Çalışma alanım; masa ve sandalye gibi veya ayakta çalışma masası gibi bir ofis düzenine sahip. *

Hiç katılmıyorum (%0)	Çok az katılıyorum	Az katılıyorum	Orta seviyede katılıyorum (%50)	Büyük ölçüde katılıyorum	Çok büyük ölçüde katılıyorum	Tamamen katılıyorum (%100)
☐	☐	☐	☐	☐	☐	☐

6 - Çalışma alanım; ışık, sıcaklık, havalandırma, manzara ve benzeri açılardan konforlu. *

Hiç katılmıyorum (%0)	Çok az katılıyorum	Az katılıyorum	Orta seviyede katılıyorum (%50)	Büyük ölçüde katılıyorum	Çok büyük ölçüde katılıyorum	Tamamen katılıyorum (%100)
☐	☐	☐	☐	☐	☐	☐

Figure D.3 (continued)

(Aşağıdaki cümleyi tamamlayan 7-11 ifadelerinin karşısındaki derecelerden size uygun olanı seçiniz.)

Evden çalışırken; benim veya evi paylaştığım bireylerin kişisel veya ev hayatına özgü aktiviteler sırasında kullandığı, bu aktivitelerin bir parçası sayabileceğimiz... *

	Asla (%0)	Çok nadir	Nadiren	Ara sıra (%50)	Sıklıkla	Genellikle	Her zaman (%100)
7-...Odayı veya odaları kullanırım.	☐	☐	☐	☐	☐	☐	☐
8-...Mobilyaları kullanırım.	☐	☐	☐	☐	☐	☐	☐
9-...Elektronik cihazları kullanırım	☐	☐	☐	☐	☐	☐	☐
10-...Objeler benim görebileceğim ve erişebileceğim bir yerde durur.	☐	☐	☐	☐	☐	☐	☐
11-...Objeleri görmek iş dışı konularla ilgili düşünmeme sebep olur.	☐	☐	☐	☐	☐	☐	☐

Figure D.3 (continued)

(Aşağıdaki cümleyi tamamlayan 12-16 ifadelerinin karşısındaki derecelerden size uygun olanı seçiniz.)

Benim veya evi paylaştığım bireylerin kişisel veya ev hayatına özgü aktiviteleri sırasında; evden çalışırken çok kullandığım, çalışma ortamımın bir parçası sayabileceğim... *

	Asla (%0)	Çok nadir	Nadiren	Ara sıra (%50)	Sıklıkla	Genellikle	Her zaman (%100)
12-...Odayı veya odaları kullanırız.	☐	☐	☐	☐	☐	☐	☐
13-...Mobilyaları kullanırız.	☐	☐	☐	☐	☐	☐	☐
14-...Elektronik cihazları kullanırız.	☐	☐	☐	☐	☐	☐	☐
15-...Objeler benim görebileceğim ve erişebileceğim bir yerde durur.	☐	☐	☐	☐	☐	☐	☐
16-...Objeleri görmek iş ile ilgili düşünmeme sebep olur.	☐	☐	☐	☐	☐	☐	☐

Anlaşırlılığında problem olduğunu düşündüğünüz sorular varsa lütfen numarasını yazınız.

Your answer

Figure D.3 (continued)

3. KISIM: Evden çalıştığınız günlerdeki mesai, mola ve iş dışı zamanlardaki mekânsal ve sosyal etkileşiminiz ile ilgili sorular içerir. Lütfen son iki aylık deneyiminizi düşünerek cevaplayınız.

Evden çalıştığınız günlerdeki mesainizi düşünerek, aşağıdaki 1-8 ifadelerin altında bulunan derecelerden size uygun olanı seçiniz.

1 - Diğer çalışanlarla, işle ilgili konularda yeterli ve etkili bilgi akışı sağlayamadığımı düşünüyorum. *

Hiç katılmıyorum (%0) Çok az katılmıyorum Az katılmıyorum Orta seviyede katılmıyorum (%50) Büyük ölçüde katılmıyorum Çok büyük ölçüde katılmıyorum Tamamen katılmıyorum (%100)

☐ ☐ ☐ ☐ ☐ ☐ ☐

2 - Diğer çalışanlarla, iş dışı konularda yeterli ve etkili bir şekilde sosyalleşemediğimi düşünüyorum. (muhabbet, arkadaşlık, vb.) *

Hiç katılmıyorum (%0) Çok az katılmıyorum Az katılmıyorum Orta seviyede katılmıyorum (%50) Büyük ölçüde katılmıyorum Çok büyük ölçüde katılmıyorum Tamamen katılmıyorum (%100)

☐ ☐ ☐ ☐ ☐ ☐ ☐

3 - Hem çalışırken, hem dinlenirken, hem de kişisel veya ev hayatıma özgü aktiviteler sırasında zamanımı aynı mekanda geçiriyorum. *

Hiç katılmıyorum (%0) Çok az katılmıyorum Az katılmıyorum Orta seviyede katılmıyorum (%50) Büyük ölçüde katılmıyorum Çok büyük ölçüde katılmıyorum Tamamen katılmıyorum (%100)

☐ ☐ ☐ ☐ ☐ ☐ ☐

FigureD.4 Third part of the survey conducted for this thesis. Spatial and social interactions.

4 - Hem çalışırken, hem dinlenirken, hem de kişisel veya ev hayatıma özgü aktiviteler sırasında zamanımı aynı mekanda geçiriyor olmak beni olumsuz etkiler. *

Hiç katılmıyorum (%0)	Çok az katılıyorum	Az katılıyorum	Orta seviyede katılıyorum (%50)	Büyük ölçüde katılıyorum	Çok büyük ölçüde katılıyorum	Tamamen katılıyorum (%100)
☐	☐	☐	☐	☐	☐	☐

5 - Mesai bitiminde, özellikle işten uzaklaşmak ve mümkün olduğunca iş düşünmemek için çalışma ortamımı terk ederim. *

Hiç katılmıyorum (%0)	Çok az katılıyorum	Az katılıyorum	Orta seviyede katılıyorum (%50)	Büyük ölçüde katılıyorum	Çok büyük ölçüde katılıyorum	Tamamen katılıyorum (%100)
☐	☐	☐	☐	☐	☐	☐

6 - Çalışırken bulunduğum odayı aynı anda başka insanlar da beni rahatsız etmeyecek iş, ders vb. aktiviteler yapmak (çalışmak) için kullanıyor. *

Asla (%0)	Çok nadir	Nadiren	Ara sıra (%50)	Sıklıkla	Genellikle	Her zaman (%100)
☐	☐	☐	☐	☐	☐	☐

7 - Çalışırken, bulunduğum odayı aynı anda başka insanlar da kişisel veya ev hayatına özgü aktiviteler yapmak için kullanıyor. *

Asla (%0)	Çok nadir	Nadiren	Ara sıra (%50)	Sıklıkla	Genellikle	Her zaman (%100)
☐	☐	☐	☐	☐	☐	☐

Figure D.4 (continued)

8 - Çalışırken, bir yandan da iş haricindeki insanlarla (evdekiler, arkadaşlar, akrabalar vs) iletişim kuruyorum. (yüz yüze, telefon, mesaj, çevrimiçi ortamlar, vb.) *

Asla (%0)	Çok nadir	Nadiren	Ara sıra (%50)	Sıklıkla	Genellikle	Her zaman (%100)
☐	☐	☐	☐	☐	☐	☐

Evden çalıştığınız günlerde, mesai süresi dışında, evde geçirdiğiniz zamanları düşünerek, aşağıdaki (9-11) ifadelerin altında bulunan derecelerden size uygun olanı seçiniz.

9 - Vaktimi çalışma ortamımda geçirmem. *

Hiç katılmıyorum (%0)	Çok az katılıyorum	Az katılıyorum	Orta seviyede katılıyorum (%50)	Büyük ölçüde katılıyorum	Çok büyük ölçüde katılıyorum	Tamamen katılıyorum (%100)
☐	☐	☐	☐	☐	☐	☐

10 - İşyerinden insanlarla, iş ile ilgili sebeplerle iletişim kurmam bekleniyor (telefon, e-posta, mesaj, vs.). *

Asla (%0)	Çok nadir	Nadiren	Ara sıra (%50)	Sıklıkla	Genellikle	Her zaman (%100)
☐	☐	☐	☐	☐	☐	☐

11 - İşyerinden insanlarla, iş ile ilgili sebeplerle iletişim kurmayı sorun etmem (telefon, e-posta, mesaj, vs.). *

Hiç katılmıyorum (%0)	Çok az katılıyorum	Az katılıyorum	Orta seviyede katılıyorum (%50)	Büyük ölçüde katılıyorum	Çok büyük ölçüde katılıyorum	Tamamen katılıyorum (%100)
☐	☐	☐	☐	☐	☐	☐

Figure D.4 (continued)

Evden çalıştığınız günlerdeki molalarınızı düşünerek, aşağıdaki (12-17) ifadelerin altında bulunan derecelerden size uygun olanı seçiniz.

12 - Molalarım, kendimi mental (zihinsel) olarak moladan sonra başlayacağım işe *
hazırlamak ile geçiyor.

Asla (%0)	Çok nadir	Nadiren	Ara sıra (%50)	Sıklıkla	Genellikle	Her zaman (%100)
☐	☐	☐	☐	☐	☐	☐

13 - Molalarım, evle ilgili veya evde yaşayanlarla ilgili ihtiyaçları karşılamak gibi *
şeyler yaparak geçiriyorum.

Asla (%0)	Çok nadir	Nadiren	Ara sıra (%50)	Sıklıkla	Genellikle	Her zaman (%100)
☐	☐	☐	☐	☐	☐	☐

14 - Molalarımı, çalışma ortamımda (masa ve sandalye, koltuk ve sehpa, vb.) *
geçiriyorum.

Asla (%0)	Çok nadir	Nadiren	Ara sıra (%50)	Sıklıkla	Genellikle	Her zaman (%100)
☐	☐	☐	☐	☐	☐	☐

15 - Molalarımı, dinlenerek veya keyif aldığım iş dışı şeyler yaparak geçiriyorum. *

Asla (%0)	Çok nadir	Nadiren	Ara sıra (%50)	Sıklıkla	Genellikle	Her zaman (%100)
☐	☐	☐	☐	☐	☐	☐

Figure D.4 (continued)

16 - Molalarımda, iş haricindeki insanlarla (evdekiler, arkadaşlar, akrabalar vs.) iletişim kuruyor, muhabbet ediyor veya onlarla birlikte vakit geçiriyorum. (yüz yüze, telefon, çevrimiçi ortamlar, vb.) *

Asla (%0)	Çok nadir	Nadiren	Ara sıra (%50)	Sıklıkla	Genellikle	Her zaman (%100)
☐	☐	☐	☐	☐	☐	☐

17 - Molalarda, özellikle işten uzaklaşmak ve iş düşünmemek için çalışma ortamımı terk ederim. *

Hiç katılmıyorum (%0)	Çok az katılıyorum	Az katılıyorum	Orta seviyede katılıyorum (%50)	Büyük ölçüde katılıyorum	Çok büyük ölçüde katılıyorum	Tamamen katılıyorum (%100)
☐	☐	☐	☐	☐	☐	☐

Anlaşırlılığında problem olduğunu düşündüğünüz sorular varsa lütfen numarasını yazınız.

Your answer

Figure D.4 (continued)

4. KISIM: Lütfen aşağıdaki soruları son iki aylık güncel iş hayatınızı düşünerek cevaplayınız. Bağlı olduğunuz kurum/kuruluş ve diğer çalışanlar da dahil olmak üzere, çalışmakta olduğunuz işiniz ile ilgili görev, sorumluluk, durum, olay ve gelişmeler, iş ile alakalı insanlar ile aranızdaki ilişkiler ve benzeri her şey iş hayatınıza dahil edilebilir.

(Aşağıdaki cümleyi tamamlayan 1-3 ifadelerinin karşısındaki derecelerden size uygun olanı seçiniz.)

Evden çalışırken, günlük mesai sürem boyunca, iş hayatımın... *

	Hiç katılmıyorum (%0)	Çok az katılıyorum	Az katılıyorum	Orta seviyede katılıyorum (%50)	Büyük ölçüde katılıyorum	Çok büyük ölçüde katılıyorum	Tamamen katılıyorum (%100)
1 - ...bir parçası olduğumu hissediyorum.	☐	☐	☐	☐	☐	☐	☐
2 - ...gelişme, durum ve olaylarının hemen farkında olabiliyorum.	☐	☐	☐	☐	☐	☐	☐
3 - ...gelişme, durum ve olaylarında, gerektiğinde hemen dahil olabiliyor veya harekete geçebiliyorum.	☐	☐	☐	☐	☐	☐	☐

Figure D.5 Fourth part of the survey conducted for this thesis. Work presence.

(Aşağıdaki cümleyi tamamlayan 4-8 ifadelerinin karşısındaki derecelerden size uygun olanı seçiniz.)

Evden çalışırken, günlük mesai sürem boyunca... *

	Hiç katılmıyorum (%0)	Çok az katılıyorum	Az katılıyorum	Orta seviyede katılıyorum (%50)	Büyük ölçüde katılıyorum	Çok büyük ölçüde katılıyorum	Tamamen katılıyorum (%100)
4 - ... zihnen tamamen işte oluyorum.	☐	☐	☐	☐	☐	☐	☐
5 - ... çalışan kişiliğime/rolüme giriyor ve kendiliğimden buna uygun bir şekilde düşünüyorum ve davranıyorum.	☐	☐	☐	☐	☐	☐	☐
6 - ... tamamen iş hayatıma ayrılmış bir ortamda olduğumu hissediyorum.	☐	☐	☐	☐	☐	☐	☐
7 - ... tamamen iş hayatıma ayrılmış bir zaman diliminde olduğumu hissediyorum.	☐	☐	☐	☐	☐	☐	☐
8 - ... ev (hayatım) ile de ilgili her gelişme, durum ve olayın farkında oluyorum.	☐	☐	☐	☐	☐	☐	☐

Anlaşırlılığında problem olduğunu düşündüğünüz sorular varsa lütfen numarasını yazınız.

Your answer

Figure D.5 (continued)

5. KISIM: Lütfen aşağıdaki soruları son iki aylık güncel ev hayatınızı düşünerek cevaplayınız. Yaşadığınız ev (veya karavan, yurt, yatakhane vb) ve bu evi paylaştığınız diğer bireyler de dahil olmak üzere, kişisel ve ev hayatına özgü aktiviteler, ev ve evde yaşayanlar ilgili görev, sorumluluk, durum, olay ve gelişmeler, evde yaşayanlar ile aranızdaki ilişkiler ve benzeri her şey ev hayatınıza dahil edilebilir.

(Aşağıdaki cümleyi tamamlayan 1-3 ifadelerinin karşısındaki derecelerden size uygun olanı seçiniz.)

Evden çalıştığım günlerde, mesai sürem dışında; ev hayatının... *

	Hiç katılmıyorum (%0)	Çok az katılıyorum	Az katılıyorum	Orta seviyede katılıyorum (%50)	Büyük ölçüde katılıyorum	Çok büyük ölçüde katılıyorum	Tamamen katılıyorum (%100)
1 - ...bir parçası olduğumu hissediyorum.	☐	☐	☐	☐	☐	☐	☐
2 - ...gelişme, durum ve olaylarının hemen farkında olabiliyorum.	☐	☐	☐	☐	☐	☐	☐
3 - ...gelişme, durum ve olaylarına, gerektiğinde hemen dahil olabiliyor veya harekete geçebiliyorum.	☐	☐	☐	☐	☐	☐	☐

(Aşağıdaki cümleyi tamamlayan 4-8 ifadelerinin karşısındaki derecelerden size uygun olanı seçiniz.)

Figure D.6 Fifth part of the survey conducted for this thesis. Home presence.

Evden çalıştığım günlerde, mesai sürem dışında... *

	Hiç katılmıyorum (%0)	Çok az katılıyorum	Az katılıyorum	Orta seviyede katılıyorum (%50)	Büyük ölçüde katılıyorum	Çok büyük ölçüde katılıyorum	Tamamen katılıyorum (%100)
4 - ... zihnen tamamen evde oluyorum.	☐	☐	☐	☐	☐	☐	☐
5 - ... ev hayatıma özgü kişiliğime/rolüme giriyor ve kendiliğimden buna uygun bir şekilde düşünüyorum ve davranıyorum.	☐	☐	☐	☐	☐	☐	☐
6 - ... tamamen ev hayatıma ayrılmış bir ortamda olduğumu hissediyorum.	☐	☐	☐	☐	☐	☐	☐
7 - ... tamamen ev hayatıma ayrılmış bir zaman diliminde olduğumu hissediyorum.	☐	☐	☐	☐	☐	☐	☐
8 - ... iş (hayatım) ile ilgili her gelişme, durum ve olayın farkında oluyorum.	☐	☐	☐	☐	☐	☐	☐

Anlaşırlılığında problem olduğunu düşündüğünüz sorular varsa lütfen numarasını yazınız.

Your answer

Figure D.6 (continued)

6. KISIM: Evden çalıştığınız günlerde yaptığınız işlerin çeşidini ve günlük mesainizin temposunu anlamaya yöneliktir. Lütfen son iki aylık deneyiminizi düşünerek cevaplayınız.

Evden çalıştığınız günlerde, mesai sürenizin ortalama ne kadarını aşağıdaki görev/iş tiplerini yaparak geçiyorsunuz? (Lütfen aşağıdaki görev/iş tiplerinin sağ tarafında bulunan seçeneklerden size uygun olanı işaretleyiniz.) *

	Asla (%0)	Çok az	Yarısından az	Yarısı (%50)	Yarısından fazla	Çoğunlukla	Her zaman (%100)
1 - Düzenlenmemiş, kodlanmamış bilginin işlenmesi, iş için anlamlı hale getirilmesi	☐	☐	☐	☐	☐	☐	☐
2 - Ticari okuryazarlık: iş yazışmaları yapmak, ajanda ve iş notlarının tutulması, fatura kesmek, belge hazırlamak, vs.	☐	☐	☐	☐	☐	☐	☐
3 - Teknik okuryazarlık: teknik dökümanların hazırlanması, talimat, prosedür, regülasyon, teknik kullanım kılavuzu, rapor vs. okumak ve yazmak	☐	☐	☐	☐	☐	☐	☐
4 - Beşeri okuryazarlık: Makale, kitap vb okumak ve yazmak	☐	☐	☐	☐	☐	☐	☐
5 - Muhasebe aritmetiği: stok, bütçe, maliyet vb. hesaplamaları	☐	☐	☐	☐	☐	☐	☐

Figure D.7 Sixth part of the survey conducted for this thesis. Task types, autonomy, routine, teamwork

6 - Analitik aritmetik: Grafik hazırlamak, ileri matematik bilgisi gerektiren hesaplar, vb.	☐	☐	☐	☐	☐	☐	☐
7 - Bilgi arama, erişim ve toplama.	☐	☐	☐	☐	☐	☐	☐
8 - Kavramlaştırma, konseptleştirme, öğrenme, soyutlama vb.	☐	☐	☐	☐	☐	☐	☐
9 - Yaratıcılık	☐	☐	☐	☐	☐	☐	☐
10 - Planlama	☐	☐	☐	☐	☐	☐	☐
11 - Hizmet	☐	☐	☐	☐	☐	☐	☐
12 - Öğretmek, eğitmek, koçluk.	☐	☐	☐	☐	☐	☐	☐
13 - Uzlaşma, satış, pazarlama.	☐	☐	☐	☐	☐	☐	☐
14 - Yönetim ve koordinasyon	☐	☐	☐	☐	☐	☐	☐
15 - Sağlık hizmeti.	☐	☐	☐	☐	☐	☐	☐

(16 ve 17. ifadelere karşılık gelen seçeneklerden size uygun olanı seçiniz.)

16 - Evden çalışırken yaptığım görevlerin tamamını düşündüğümde, hangi işi, nerede, ne zaman, nasıl, ne hızda yapmam veya yapmamam gerektiği ve mesai saatlerimi belirlemek gibi konularda bana karışılmadığını ve özgür olduğumu düşünüyorum.

*

Hiç katılmıyorum (%0)	Çok az katılıyorum	Az katılıyorum	Orta seviyede katılıyorum (%50)	Büyük ölçüde katılıyorum	Çok büyük ölçüde katılıyorum	Tamamen katılıyorum (%100)
☐	☐	☐	☐	☐	☐	☐

Figure D.7 (continued)

17 - Mesai dışındaki zamanlarda (mesai sonrası, tatil günü, vb.) çalışmam bekleniyor. *

Asla (%0)	Çok nadir	Nadiren	Ara sıra (%50)	Sıklıkla	Genellikle	Her zaman (%100)
☐	☐	☐	☐	☐	☐	☐

18 - Standart günlük mesainizin ne kadarında, vaktiniz aynı prosedürleri tekrar tekrar uygulamakla geçiyor? *

Asla (%0)	Çok az	Yarisından az	Yarısı (%50)	Yarisından fazla	Çoğunlukla	Her zaman (%100)
☐	☐	☐	☐	☐	☐	☐

19 - Aktif olarak **evden** çalıştığınız mesai süresi boyunca ne sıklıkla işle alakalı insanlarla iletişim kuruyorsunuz? *

Asla (%0)	Çok nadir	Nadiren	Ara sıra (%50)	Sıklıkla	Genellikle	Her zaman (%100)
☐	☐	☐	☐	☐	☐	☐

20 - Toplam mesainizin (aylık) ortalama ne kadarında evden çalışıyorsunuz? *

Asla (%0)	Çok az	Yarisından az	Yarısı (%50)	Yarisından fazla	Çoğunlukla	Her zaman (%100)
☐	☐	☐	☐	☐	☐	☐

Anlaşılabilirliğinde problem olduğunu düşündüğünüz sorular varsa lütfen numarasını yazınız.

Your answer

Figure D.7 (continued)

7. KISIM: Bu bölümdeki sorular hayat boyu edindiğiniz iş hayatı ve ev hayatı tecrübeleriniz, alışkanlıklarınız ve tercihleriniz ile ilgilidir.

Lütfen aşağıdaki (1-11) ifadelerin sağında bulunan seçeneklerden size uygun olanı * işaretleyiniz.

	Hiç katılmıyorum (%0)	Çok az katılıyorum	Az katılıyorum	Orta seviyede katılıyorum (%50)	Büyük ölçüde katılıyorum	Çok büyük ölçüde katılıyorum	Tamamen katılıyorum (%100)
1 - Şimdiye kadarki iş deneyimlerim sayesinde, insanlarla gün içinde çok sık iletişim kurmam gereken işlere alıştım.	☐	☐	☐	☐	☐	☐	☐
2 - Şimdiye kadarki iş deneyimlerim sayesinde, iş arkadaşlarıyla mesai saatinde, iş dışı konularda da muhabbet edilebilen çalışma ortamlarına alıştım.	☐	☐	☐	☐	☐	☐	☐
3 - Bir kişi ile bile olsa, başka insanlarla sürekli iletişim halinde olmamı gerektiren görevler beni daha çok motive ediyor.	☐	☐	☐	☐	☐	☐	☐

Figure D.8 Seventh part of the survey conducted for this thesis. Past experiences and preferences on work and home lives.

4 - Yalnız çalışmam gereken görevler beni daha çok motive ediyor.	☐	☐	☐	☐	☐	☐	☐
5 - Geçmiş tecrübelerim sayesinde, şimdiki işimde uyduğum mesai saati (ve varsa fazla mesai) uygulamasına alıştım.	☐	☐	☐	☐	☐	☐	☐
6 - Mesai dışındaki zamanlarda çalışmayı sorun etmem.	☐	☐	☐	☐	☐	☐	☐
7 - İmkanım varsa mümkün olduğunca az insanla yaşamayı tercih ederim.	☐	☐	☐	☐	☐	☐	☐
8 - Kalabalık yerlerde (ev, yurt, vb.) yaşamaya alıştım.	☐	☐	☐	☐	☐	☐	☐
9 - Genel olarak, işverenin iş yerine gitmek yerine evden çalışmayı tercih ederim.	☐	☐	☐	☐	☐	☐	☐
10 - Genel olarak, evden çalışmak yerine işverenin iş yerine gitmeyi tercih ederim.	☐	☐	☐	☐	☐	☐	☐

Figure D.8 (continued)

11 - Evden
çalışırken,
eğer imkanım
varsa, sadece
çalışmaya
ayrılmış özel
bir çalışma
odam
olmasını
tercih ederim.

☐☐☐☐☐☐☐

12 - Çocukluğunuz dahil, şimdiye kadar yaşadığınız bütün evleri (ve yurtları vb.) *
düşününce, hayatınızın ne kadarında sadece size ait bir odanız (yatak odası, hobi
odası, çalışma odası vb.) oldu?

Asla (%0) Çok az Yarısından az Yarı (%50) Yarısından fazla Çoğunlukla Her zaman (%100)

☐☐☐☐☐☐☐

13 - Şu anda veya daha önce bir işverenin iş yerinde çalışma deneyiminiz varsa, *
nasıl mekanlarda çalışma deneyiminiz var? (Birden fazla işaretleyebilirsiniz.)

- ☐ Hiçbir işverenin iş yerinde çalışma deneyimim yok.
- ☐ Sadece bana ait bir oda
- ☐ Birkaç kişiyle paylaştığım oda
- ☐ Büyük bir ekip veya departman ile paylaştığım, açık plan bir mekân
- ☐ Sabit bir masamın olmadığı mekânlar

Figure D.8 (continued)

14 - İşverenin iş yerinde çalışırken, nasıl bir mekanda çalışıyor olmayı tercih edersiniz? *(Birden fazla işaretleyebilirsiniz.)* *

☐ Sadece bana ait bir oda

☐ Birkaç kişiyle paylaştığım oda

☐ Büyük bir ekip veya departman ile paylaştığım, açık plan bir mekân

☐ Sabit bir masamın olmadığı mekânlar

15 - Şu anki işinizi (yaklaşık) ne kadar süredir evden yapıyorsunuz? *(Lütfen yıl ve ay olarak yazınız. Örnek: "8 ay", "1 yıl 3 ay")* *

Your answer

16 - Karma, tam veya yarı zamanlı bütün geçmiş deneyimleriniz de dahil olmak üzere, evden çalışma deneyiminizin toplam süresi yaklaşık olarak nedir? *(Lütfen yıl ve ay olarak yazınız.)* *

Your answer

17 - Çalışma hayatında geçirdiğiniz toplam süre nedir? *(Lütfen yıl ve ay olarak yazınız.)* *

Your answer

Anlaşırlılığında problem olduğunu düşündüğünüz sorular varsa lütfen numarasını yazınız.

Your answer

Figure D.8 (continued)

8. KISIM: Bu bölümdeki sorularda "iş" tabiri ile bütün iş hayatınız kastedilmektedir. Bağlı olduğunuz şirket/kurum ve diğer çalışanlar da dahil olmak üzere, çalışmakta olduğunuz işiniz ile ilgili görev, sorumluluk, durum, olay ve gelişmeler, iş ile alakalı insanlar ile aranızdaki ilişkiler ve benzeri her şey iş hayatınıza dahil edilebilir.

Lütfen aşağıdaki soruları **güncel olarak evden yapmaktayken olduğunuz işinizi ve görevinizi** düşünerek cevaplayınız. (1-10) İfadelere karşılık gelen derecelerden size uygun olanını seçiniz. *

	Tamamen zıt fikirdeyim	Büyük ölçüde zıt fikirdeyim	Biraz zıt fikirdeyim	Biraz katılıyorum	Büyük ölçüde katılıyorum	Tamamen katılıyorum
1-Başıma gelen en önemli şeyler işimle ilgilidir.	☐	☐	☐	☐	☐	☐
2-Bana göre, işim kim olduğumun sadece küçük bir kısmıdır.	☐	☐	☐	☐	☐	☐
3-İşimle kişisel olarak çok ilgiliyim.	☐	☐	☐	☐	☐	☐
4-Her anımda, her lokmamda, her nefesimde işimle yaşıyorum.	☐	☐	☐	☐	☐	☐
5-İlgi alanlarımın çoğu işimle ilgilidir.	☐	☐	☐	☐	☐	☐
6-İşimle aramda kopması çok zor olan çok güçlü bağlarım var.	☐	☐	☐	☐	☐	☐
7-Genellikle kendimi işimden kopmuş/kopuk hissedirim.	☐	☐	☐	☐	☐	☐
8-Kişisel yaşam hedeflerimin çoğu iş odaklıdır.	☐	☐	☐	☐	☐	☐

Figure D.9 Eighth part of the survey conducted for this thesis. Job involvement, psychological detachment from work, job demands and stress, work life centrality.

9-İşimi varlığımın merkezine koyarım.	☐	☐	☐	☐	☐	☐
10-Çoğu zaman kendimi tam anlamıyla işime vermeyi severim.	☐	☐	☐	☐	☐	☐

Evden çalıştığım günlerde, mesai sürem dışında evde vakit geçirirken... *

	Hiç katılmıyorum (%0)	Çok az katılıyorum	Az katılıyorum	Orta seviyede katılıyorum (%50)	Büyük ölçüde katılıyorum	Çok büyük ölçüde katılıyorum	Tamamen katılıyorum (%100)
11-İşi unuturum.	☐	☐	☐	☐	☐	☐	☐
12-İş hakkında hiç düşünmem.	☐	☐	☐	☐	☐	☐	☐
13-Kafamı işimden uzaklaştırırım.	☐	☐	☐	☐	☐	☐	☐
14-İşin taleplerine, beklentilerine ara veririm.	☐	☐	☐	☐	☐	☐	☐

Figure D.9 (continued)

Evden çalıştığım günlerde, mesai sürem boyunca... *

	Hiç katılmıyorum (%0)	Çok az katılıyorum	Az katılıyorum	Orta seviyede katılıyorum (%50)	Büyük ölçüde katılıyorum	Çok büyük ölçüde katılıyorum	Tamamen katılıyorum (%100)
15-Stresli bir iş hayatım var.	☐	☐	☐	☐	☐	☐	☐
16-İşlerimi kısıtlı bir zamanda yetiştirmem gereken, iş yükü açısından zahmetli ve talepkâr bir iş hayatım var.	☐	☐	☐	☐	☐	☐	☐
17-Duygusal olarak zahmetli ve talepkâr bir iş hayatım var.	☐	☐	☐	☐	☐	☐	☐
18-Zihinsel olarak zahmetli ve talepkâr bir iş hayatım var.	☐	☐	☐	☐	☐	☐	☐

Figure D.9 (continued)

Aşağıdaki (19-24) ifadeler güncel işiniz **değil**, genel olarak "**iş kavramı ve çalışma**" **hayatı** ile ilgili düşünceleriniz ve hisleriniz hakkındadır. (İfadelere karşılık gelen derecelerden size uygun olanını seçiniz.)

	Tamamen zıt fikirdeyim	Büyük ölçüde zıt fikirdeyim	Biraz zıt fikirdeyim	Biraz katılıyorum	Büyük ölçüde katılıyorum	Tamamen katılıyorum
19-Hayatta gerçekleşen en önemli şeyler iş ile ilgilidir.	☐	☐	☐	☐	☐	☐
20-İş, insanların zamanlarının çoğunda ilgilenmeleri/meşgul olmaları gereken bir şeydir.	☐	☐	☐	☐	☐	☐
21-İş, insanın hayatının sadece küçük bir kısmı olmalıdır.	☐	☐	☐	☐	☐	☐
22-İş, yaşamın merkezi olarak görülmelidir./merkezine konulmalıdır.	☐	☐	☐	☐	☐	☐
23-Bana göre, bireyin kişisel yaşam hedefleri iş odaklı olmalıdır.	☐	☐	☐	☐	☐	☐
24-Hayat ancak insan kendini tam anlamıyla işe verdiği zaman yaşamaya değerdir.	☐	☐	☐	☐	☐	☐

Anlaşırlılığında problem olduğunu düşündüğünüz sorular varsa lütfen numarasını yazınız.

Your answer

Figure D.9 (continued)

9. KISIM: Bu bölümdeki sorularda "**ev**" tabiri ile bütün ev hayatınız kastedilmektedir. Yaşadığınız ev (veya karavan, yurt, yatakhane vb) ve bu evi paylaştığınız diğer bireyler de dahil olmak üzere, kişisel ve ev hayatınıza özgü aktiviteler ve hobiler, ev ve evde yaşayanlarla ilgili görev, sorumluluk, durum, olay ve gelişmeler, evde yaşayanlar ile aranızdaki ilişkiler ve benzeri her şey ev hayatınıza dahil edilebilir.

Lütfen aşağıdaki soruları yaklaşık son 2 ayda yaşadığınız deneyimleri düşünerek, * **güncel ev hayatınıza göre** cevaplayınız. (1-10) İfadelere karşılık gelen derecelerden size uygun olanını seçiniz.

	Tamamen zıt fikirdeyim	Büyük ölçüde zıt fikirdeyim	Biraz zıt fikirdeyim	Biraz katılıyorum	Büyük ölçüde katılıyorum	Tamamen katılıyorum
1-Başıma gelen en önemli şeyler evimle ilgilidir.	☐	☐	☐	☐	☐	☐
2-Bana göre, evim kim olduğumun sadece küçük bir kısmıdır.	☐	☐	☐	☐	☐	☐
3-Evimle kişisel olarak çok ilgiliyim.	☐	☐	☐	☐	☐	☐
4-Her anımda, her lokmamda, her nefesimde evimle yaşıyorum.	☐	☐	☐	☐	☐	☐
5-İlgi alanlarımın çoğu evimle ilgilidir.	☐	☐	☐	☐	☐	☐
6-Evimle aramda kopması çok zor olan çok güçlü bağlarım var.	☐	☐	☐	☐	☐	☐
7-Genellikle kendimi evimden kopmuş/kopuk hissedirim.	☐	☐	☐	☐	☐	☐
8-Kişisel yaşam hedeflerimin çoğu ev odaklıdır.	☐	☐	☐	☐	☐	☐

Figure D.10 Ninth part of the survey conducted for this thesis. Job involvement, psychological detachment from work, job demands and stress, work life centrality.

9-Evimi varlığının merkezine koyarım.	☐	☐	☐	☐	☐	☐
10-Çoğu zaman kendimi tam anlamıyla evime vermeyi severim.	☐	☐	☐	☐	☐	☐

Evden çalıştığım günlerde, mesai sürem boyunca... *

	Hiç katılmıyorum (%0)	Çok az katılıyorum	Az katılıyorum	Orta seviyede katılıyorum (%50)	Büyük ölçüde katılıyorum	Çok büyük ölçüde katılıyorum	Tamamen katılıyorum (%100)
11-Evi unuturum.	☐	☐	☐	☐	☐	☐	☐
12-Ev hakkında hiç düşünmem.	☐	☐	☐	☐	☐	☐	☐
13-Kafamı evimden uzaklaştırırım.	☐	☐	☐	☐	☐	☐	☐
14-Evin taleplerine, beklentilerine ara veririm.	☐	☐	☐	☐	☐	☐	☐

Figure D.10 (continued)

Evden çalıştığım günlerde, mesai sürem dışında evde vakit geçirirken... *

	Hiç katılmıyorum (%0)	Çok az katılıyorum	Az katılıyorum	Orta seviyede katılıyorum (%50)	Büyük ölçüde katılıyorum	Çok büyük ölçüde katılıyorum	Tamamen katılıyorum (%100)
15-Stresli bir ev hayatım var.	☐	☐	☐	☐	☐	☐	☐
16-İşlerimi kısıtlı bir zamanda yetiştirmem gereken, iş yükü açısından zahmetli ve talepkâr bir ev hayatım var.	☐	☐	☐	☐	☐	☐	☐
17-Duygusal olarak zahmetli ve talepkâr bir ev hayatım var.	☐	☐	☐	☐	☐	☐	☐
18-Zihinsel olarak zahmetli ve talepkâr bir ev hayatım var.	☐	☐	☐	☐	☐	☐	☐

Figure D.10 (continued)

Aşağıdaki (19-24) ifadeler güncel ev hayatınız **değil**, genel olarak **"ev" kavramı ve ev hayatı** ile ilgili düşünceleriniz ve hisleriniz hakkındadır. (İfadelere karşılık gelen derecelerden size uygun olanını seçiniz.) *

	Tamamen zıt fikirdeyim	Büyük ölçüde zıt fikirdeyim	Biraz zıt fikirdeyim	Biraz katılıyorum	Büyük ölçüde katılıyorum	Tamamen katılıyorum
19-Hayatta gerçekleşen en önemli şeyler ev ile ilgilidir.	☐	☐	☐	☐	☐	☐
20-Ev, insanların zamanlarının çoğunda ilgilenmeleri/meşgul olmaları gereken bir şeydir.	☐	☐	☐	☐	☐	☐
21-Ev, insanın hayatının sadece küçük bir kısmı olmalıdır.	☐	☐	☐	☐	☐	☐
22-Ev, yaşamın merkezine konulmalıdır.	☐	☐	☐	☐	☐	☐
23-Bana göre, bireyin kişisel yaşam hedefleri ev odaklı olmalıdır.	☐	☐	☐	☐	☐	☐
24-Hayat ancak insan kendini tam anlamıyla eve verdiği zaman yaşamaya değerdir.	☐	☐	☐	☐	☐	☐

Anlaşırlılığında problem olduğunu düşündüğünüz sorular varsa lütfen numarasını yazınız.

Your answer

Figure D.10 (continued)

APPENDIX E

ETHICS COMMITTEE APPROVAL FOR INTERVIEW STUDY

UYGULAMALI ETİK ARAŞTIRMA MERKEZİ
APPLIED ETHICS RESEARCH CENTER



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01 ARALIK 2022

Konu: Değerlendirme Sonucu

Gönderen: ODTÜ İnsan Araştırmaları Etik Kurulu (İAEK)

İlgi: İnsan Araştırmaları Etik Kurulu Başvurusu

Sayın Arzu Gönenç SORGUCU

Danışmanlığınızı yürüttüğünüz Orkun SÖNMEZ'in "*Immersive Qualities and Liminality of Space in Telework-from-Home Context: A Postphenomenological Approach*" başlıklı araştırması İnsan Araştırmaları Etik Kurulu tarafından uygun görülerek 0630-ODTÜİAEK-2022 protokol numarası ile onaylanmıştır.

Bilgilerinize saygılarımla sunarım.

APPENDIX F

ETHICS COMMITTEE APPROVAL FOR SURVEY STUDY

UYGULAMALI ETİK ARAŞTIRMA MERKEZİ
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18 OCAK 2024

Konu: Değerlendirme Sonucu

Gönderen: ODTÜ İnsan Araştırmaları Etik Kurulu (İAEK)

İlgi: İnsan Araştırmaları Etik Kurulu Başvurusu

Sayın Arzu Gönenç Sorguç

Danışmanlığını yürüttüğünüz Orkun Sönmez'in "*Immersive Qualities and Liminality of Space in Telework-from-Home Context: A Postphenomenological Approach*" başlıklı araştırmanız İnsan Araştırmaları Etik Kurulu tarafından uygun görülerek 0066-ODTÜİAEK-2024 protokol numarası ile onaylanmıştır

Bilgilerinize saygılarımla sunarım.

CURRICULUM VITAE

PERSONAL INFORMATION

Surname, Name: Sönmez, Orkun
Nationality: Turkish (TC)

EDUCATION

Degree	Institution	Year of Graduation
PhD	METU Building Science	2024
MS	METU Building Science	2018
BArch	METU Architecture	2010
High School	Sivas Science High School, Sivas	2005

WORK EXPERIENCE

Enrollment	Place	Year
Project Personnel	METU	2018
Designer	CERN MediaLab	2015
Research Assistant	Simsoft	2014
Architect	ISSO Group	2012
Architect	Maviperi Architecture	2011

LANGUAGES

Turkish (Native), English (Advanced)

PUBLICATIONS

1. Bulut, A. C., & Sönmez, O. (2020). Creating tooth models in virtual reality environment for dentistry preclinical education: Pilot study. *Turkish Journal of Clinics and Laboratory*, 11(2), 43-49.
2. Sönmez, O. & Sorguç, A. (2018). *Evaluating an Immersive Virtual Learning Environment for Learning How to Design in Human-Scale*. 36th International Conference on Education and Research in Computer Aided Architectural Design in Europe (eCAADe), Lodz, Polonya.

COMPETITIONS

1. 2nd place in national competition. (2011). Adana Çukurova Municipal Services Building and Culture Center.
2. Honorable mention in student competition. (2009). PROSteel 2009 International Steel Structure Design Competition.

RESEARCH INTERESTS

Architecture, Immersion, Liminality, Postphenomenology, Design Anthropology, Design Theory, Design Education, Spatial Cognition, Embodied Cognition, Virtual Reality, Environmental Psychology, Organizational Psychology.