

KESİT AKADEMİ DERGİSİ

ISSN: 2149-9225

The Journal of Kesit Academy

Discussion of the Impact of Communication Tools
and Equipment Design on Lives and Reality

İletişim Enstrümanları Tasarımının, Yaşayışa ve
Gerçekliğe Etkisinin Tartışılması

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Article Information/ Makale Türü/ Информация о Статье:

Research Article/ Araştırma Makalesi/ Научная Статья

Citation / Atıf / Цитата

Ardatürk, A. Ş. (2022). Discussion of the impact of communication tools and equipment design on lives and reality. *The Journal of Kesit Academy*, 8 (32), 51-69.

Ardatürk, A. Ş. (2022). İletişim enstrümanları tasarımının, yaşayışa ve gerçekliğe etkisinin tartışılması. *Kesit Akademi Dergisi*, 8 (32), 51-69.

 10.29228/kesit.64098

Submitted/ Geliş/ Отправлено: 15.08.2022

Accepted/ Kabul/ Принимать: 16.09.2022

Published/ Yayın/ Опубликованный: 25.09.2022

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Discussion of the Impact of Communication Tools and Equipment
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*İletişim Enstrümanları Tasarımının, Yaşayışa ve Gerçekliğe Etkisinin
Tartışılması*

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Abstract: Communication is a phenomenon as old as the history of humanity. This phenomenon is one of the most fundamental facts of humanity's dominance over the world. Humans have always designed, produced and used new tools and equipment for communication throughout the history. Developments in the field of communication radically affect both people at the micro scale and the society at the macro scale. The speed of designing, producing and consuming communication instruments unprecedentedly increased in the 21st century. This situation caused by technological realities creates a new representation on a world scale. This representation affects all kinds of actions from daily life to private life, from experience in private spaces to experience in public spaces. In this context, human, culture, society and the manner of living are evolving into a new reality. Developments in field of technology, software and design affect the social existence and humanity. The developments and changes in these fields directly shape the design of communication tools and equipment. This study provides an overview on the effects of communication tools and equipment and their design on today's reality. It aims to reevaluate the relations between individual and meta and discuss social realities in connection with communication instruments and their design. Once understanding the past, it attempts to look to the future with today's reality; and suggest the effect of new types and forms of communication and instruments on design and individuals. The designs serving for this reality are moving individuals away from the known reality day by day. And the life and living reshaped with these realities evolved to a state "the metas we previously owned are now the owners of us". At the same time, the work invites the designer to present a new perspective and rethink the realities known in the relevant field.

Keywords: Industrial design, communication, design, communication instruments, meta.

Öz: İletişim, insanlık tarihi kadar eski bir olgudur. Bu olgu insanlığın dünya üzerindeki baskınlığının en temel nüvelerinden birisidir. İnsan iletişim için tarih boyunca hep yeni enstrümanlar tasarlamış, üretmiş, kullanmıştır. İletişim alanından var olan gelişmeler mikro ölçekte insanı makro ölçekte de toplumu köktenci olarak etkiler. İletişim enstrümanlarını tasarlama, üretme ve tüketme hızı 21. yüzyılda hiç görülmemiş biçimde yükselmiştir. Teknolojik gerçekliklerin sebep olduğu bu durum dünya ölçeğinde bir yeni temsil oluşturmaktadır. Bu temsil gündelik hayattan özel hayata, özel mekan deneyiminden kamusal alan deneyimine her türlü eylemi etkiler. İnsan, kültür, toplum ve yaşayış bu hızla beraber yeni bir gerçekliğe evrilmektedir. Teknoloji, yazılım ve tasarım alanlarındaki gelişmeler sosyal varlığı ve insanlığı etkilemektedir. Bu alanlardaki gelişme ve değişimler iletişim araç gereçlerinin tasarımlarını doğrudan şekillendirmektedir. Bu çalışma; iletişim araç gereçleri ve tasarımlarının, günümüz gerçekliğine etkilerine bir bakış sağlamaktadır. Birey ve meta arasındaki ilişkileri yeniden değerlendirip iletişim araç gereçleri ve bunların tasarımları noktasında toplumsal gerçeklikleri tartışmaktadır. Geçmişini anlayıp, günümüz gerçekliği ile geleceğe bakmaya çalışıp; yeni iletişim türleri, biçimleri ve enstrümanlarının tasarım ve birey üzerindeki etkisini ortaya koymaya çalışmaktadır. Bu gerçekliğe hizmet eden tasarımlar bireyi günbegün bilinen gerçeklikten uzaklaştırmaktadır. Ve bu gerçeklikler ile yeniden şekillenen hayat ve yaşayış; “sahip olduğumuz metaların sahip olduğu bizler” şekline evrilmiştir. Bununla beraber çalışma tasarımcıya yeni bir perspektif sunmaya ve ilgili alanda bilinen gerçeklikleri yeniden düşünmeye çağırılmaktadır.

Anahtar Kelimeler: Endüstriyel tasarım, iletişim, tasarım, iletişim enstrümanları, meta.

Introduction

Communication is one of the major phenomena we know its existence beginning from the existence of Cro-magnon until today. Before the formation of languages, even the sound and movement based primitive communications have some forms which are still effective today. Communication by whistling, gestures may be described as examples of this heritage. After adding a language and an alphabet on oral communication techniques, it becomes possible to talk about the existence of several tools and equipment supporting this communication. “Stone tablet” relations established through written language after some examples including marks left on nature (putting stones on top of each other etc.), signals with carving, symbols composed of direction expressions are one of the most basic expressions of these tools and equipment. At this point (like the invention of writing), at the point of permanence of writing, its transmission, conveyance and mobility in time, it can be stated that communication tools and equipment have always been existing in lives with human and shaped these lives beginning from the time of stone tablets, printing press, papyrus papers till

the internet age.

It can be said with a generally accepted expression that communication tools and equipment and technological possibilities existing today are radically changing both the origin of human and living. Stating that there are two main and dominant structures at the origin of this change, Steve Graham has evaluated these two structures on the basis of urbanization that reached to the most important-highest level throughout the human history during early 21st century and the rapid and uncontrollable structure of communication technologies and communication (Graham, 2002: 32). Today, this situation is turning into a communication variant that has become personality traits and shaping the daily existence of individuals. All kinds of user relations established both with meta and space are being reshaped in this framework. The internet that was not existing in daily use before 1990s ensures that social relations, meta relations, space relations and time relations are occurring in a conventional and traditional way. Even though this relationship has extended to anywhere the internet reaches out after 1990, its existence in the 21st century, the collective connection and access established with information in every place and space, resulted in formation of a new socio-cultural – economic structure, for this reason the necessity for reconsideration of space concept (Sınmaz, 2015: 63). Since experience of space may be interpreted as a phenomenon that includes human existence, moment, knowledge, living and meta, it can be stated that all these components are significantly influenced when taking into account the position internet and communication instruments reached today, therefore these concepts should be reconsidered. At the heart of this change, there is the state of sharing knowledge, status and moment as the fundamental element of communication.

The knowledge has been transferred, collected and accumulated in many different ways and forms throughout the history. Nevertheless, the knowledge existing in the 21st century has given rise to major changes in individual presence when considering speed of transmission and ease of access (in global scale). Internet tools and equipment have become “individual specific providers” of knowledge at that point. Communication tools and equipment and technologies that fundamentally enable to produce more jobs and communicate in much shorter periods with less movement and action have reshaped social memory with individual effects resulted in a new social revision-transformation. This transformation is existing in its own habitat by rolling up as a snowball that includes more people in each passing day (by growing and reproducing). People can access all stores in the world without leaving their place for their needs, necessities and luxury shopping, obtain all kinds of service on the internet, and probably most importantly exist in different personalities and create different identities in virtual spaces. At this point, (as seen in most movies and literature works) performance of many physical behaviors and obligations, that require movement in virtual

spaces as the image of reality with virtual identities, both changes the relationship established by individual with the concept of movement and the relationships established with public spaces. Today, there are thousands of firms which do not have physical existence but have stores on the internet. These firms have weakened the rational relations established with physical spaces conventionally and reduced the relationship between action and movement. Moreover, there are also some firms which are bot existing in physical world and in virtual spaces (they are majority). It can be expressed as another discourse that in today's reality it is possible to find providers of all kinds of products and services over virtual reality with a considerably high percentage. This accessibility causes people to review products on the internet instead of visiting bazaars as a leisure activity, order the products online instead of handpicking on the market and play the games on their smart phone instead of playing games in social spaces. At this point, the spaces where individuals and so the society are existing in urban life, cycle and circulation routes, circulation periods and times have changed, conventionally known social structure was reorganized in the form of a meta-human relationship under the influence of communication tools and equipment and their interface designs. Mitchell and Hampton stated in their study that social relationship structures and types are reshaped with new communication interfaces and they are subject to a new organization (Hampton vd., 2014: 8; Mitchell, 2005: 328-332).

In our world's reality; with the pandemic, virtual space relations, new communication tools and equipment-forms and rush hour relationships established in urban-capital structure, human spends less time in urban space day by day, let themselves into their relatively safe and comfortable spaces, sometimes consciously sometimes unconsciously, and may move away multi-layered communication and socialization existing in urban diagram. This behavior form which can also be experienced during times of pressure and fear has also existed during the 20th century as a capital weapon that decreases individual-individual interaction but increases individual-meta interaction. The sense, emotion, sharing and labor pulled away the human spirit and orient/made oriented towards consumption. The words and interactive communication status established by Peter Finch (Howard Beale), the lead actor of the movie "Network" produced in 1976 is probably the one of best sociological expressions of this situation.

"There is no need to say, everyone knows that. We are in a depression. Everyone is either unemployed or afraid of being unemployed. The value of money is not one red cent, the banks are going bankrupt, the tradesmen are holding guns under the counter, bums are running wild on streets. No one knows what to do, and it never comes to an end. We know our air is not to be inhaled, food is not to be eaten. We just sit and watch TV. The news anchor says there were 15 murders and 63 felonies that

day. As if it is so normal! We know we are in a bad situation. Worse than bad. crazy! It's like everything's gone crazy everywhere. We don't go out anymore. We're sitting at home, and the world we live in is getting smaller and smaller. We can only say "Please, at least leave us alone in the living room of our house! Let me keep living with my toaster, my TV and my car tires. I won't make a peep. Just leave us alone. (Lumet, 1976: 53:38 - 56:39)."

The relationship diagram existing at that point, as it existed in the reality of the 20th century, has drawn considerable attention while approaching the 21st century (particularly after 1996) and during the first years of the 21st century, created reactions in academic environment and been discussed by sociologists. On the other hand, the new internet usage (addiction), technology oriented possibilities and creation, communication tools and equipment, designs, interface designs and most importantly the accelerated increase in adaptation capabilities existing in usage-familiarizing periods of this phenomena, which can be said to have become after 2010, pointed out the need for reconsideration of this issue. It can be stated that the interest and adaptation to communication tools and equipment seems like being transmitted with a genetic predisposition particularly in today's world where the Z generation (those born after 2000) constitutes the young mass. In this process from nomadic being to settled life, from cultivating societies to city-states, from the industrial revolution to the introduction of the internet at homes, the change that has taken place after 2010 is the precursor of radical innovation and a new existence, and reveals the signs of social transformation.

Today's Reality

When the history of humanity is considered, a number of major changes in different geographies and different times and many incidents having results at global scale are observed. When we consider either the industrial revolution or world war or invention of electricity (etc.), it is known that lives have changed, culture has renewed and the humanity adapts to this renewal. When it comes to today's reality, it can be stated that the relations of the individual and so the society in every sense are subject to a revision. One of these relations is the change observed in relations established with meta, one is the changes observed in relations established between individuals and the other is the changes observed in relations established with spaces. In its simplest terms, the relationship established with the communication meta presents a representation in which the concept of belonging is read at the highest level, while the relations between individuals and the relations established with the space have relatively weakened and changed form. Particularly for generations born in 2000 and later, virtual spaces seem more effective and attractive than real spaces and these generations can express themselves more freely and truly (in their own way). This expression is fed with a motive of "being liked, being applauded" and the preferences are shaped with this motivation.

Recent researches suggest that the main motivation and awareness is shaped with these virtual realities in Z generation. As a documentary film produced from these researches, “*Social Dilemma*” clearly reveals the situation (Orlowski, 2020). Similarly, these generations move away the ability to communication with spoken language and body language and tend to communicate via keyboards and images in social relations. At this point, both design elements and interfaces, meta, public spaces and urban spaces adapt to and keep up with this process of change (and are reinterpreted in essence) and take some positions suitable to this form. The relation of belonging established with meta takes strength from the movement started with the introduction of the internet into homes especially after 90’s and today the relationship of every object with the internet has become questionable.

Smart homes, smart furniture, smart streets, smart cities and the relations established by these systems with each other are the most basic example for this questioning. Even though all these systems are seen as the elements owned by the individual (or society) on the surface, it is apparent when looking at deeply that the system absorbs the user into an internal obligation, network and state of being a permanent customer, further alienates humans from their own essence due to the reasons that it forces the user to itself, creates an excessively conformist habit, continuously requires financial dependence with software and update necessities and connections established with other “smart things”. In other words, the relationship established by the individual with these technological tools and equipment has gone beyond owning and belonging and evolved to being owned and being belonged. This evolution shapes today’s reality, living, relations and daily presence. With the concept of internet of things, new media and social media platforms, tools-instruments ensuring to access these platforms and knowledge, the created environment surrounded by cameras and sensors, cloud information resources, digital identities, digital economies and digital currencies and even most recently the *metaverse* design as a digital reality depiction, living has been carried to a brand new reality in holistic sense. *Metaverse* was not given an official description in the literature yet, however it is the expression of a virtual universe where completely virtual meta, places and images have a digital and real currency value, trading is made, personality traits and data of avatars can be set up, some agreements and even marriages can be organized official between the avatars, and meta and material production can be performed. For this universe defined by the relevant persons as “the place where reality and virtual come closest to each other”, some designs which address to different senses, imitate sensations, make individuals within virtuality feel as being in reality in perceptual sense have already started to be made and sold. There are currently existing spaces and perceptions which are being shaped and have shaped within this organization. Countries, firms and legal entities have officially recognized this virtual entity and entered into legislative-executive relations within their own ap-

pearance. When considering the relations established with urban areas and the public things by individuals who are deeply dependent to the expression of this virtual reality, digital things and tools and equipment which enable them, renewal of design element and its way of design at every scale becomes important. Likewise, it can be stated that the human species quintessentially having satisfactions and feeding their self and ego; with these satisfactions are/will be able to satisfy many things, they cannot satisfy in reality, in this virtual universe, therefore the interest, concern and willing for this digital/virtual reality always increases/can increase in social sense.

In a scene of the movie *"Inception"* dated 2010 which was written and directed by Christopher Nolan and already secured its position in the history of cinema, the sentence to answer the question of the leading actors "why do they want this to fall asleep", seeing hundreds of people connected to conscious sleep and dream machines, is literally expressing the reality behind the desire felt to this virtual reality: "No. They come here to wake up. The realm of dreams are becoming their reality" (Nolan, 2010: 1:44:46). This situation gives rise to the necessity of designing the relevant virtual reality (spaces, meta, topography etc.) and researching the influence of these designs on individuals, and designing high quality meta, space and experience which enable to return individuals from virtuality to reality and reconsideration on the things to be designed and way of design. At this point, the paradigms shall be required to be reobtained-reinterpreted for the relevant new process. Interpretation of these paradigms firstly depend on obtainment of them, so takes shape with existence of the market.

The concepts like market research, target audience analysis are the methods of information gathering dated far in the past. These methods have been composed of information gathering with relatively "conventional" social sciences researches until the 21st century. This information repository includes the gold quality paradigms particularly in fields of production, advertisement, design etc. On the other hand, it can be said that market reality is dominated by internet researches today (although many conventional data obtaining and processing systems and methods are still being used). A huge, up-to-date and dynamic information repository can be obtained with smart software, user tracking systems, user footprints in the process of internet use (cookies), guess algorithms and user profile analyses, artificial intelligence.

Processing of data also existing in virtual realities is shaped over the internet and preferences are found out with these analyses. Likewise, the number of registered internet users has reached to a ratio of 60% on the world by January 2021 (Johnson, 2021). Even though this ratio just indicates the registered data, estimated figure of use (though it cannot be literally measured) is approaching to 90%. However, the ratio of owning mobile technologies as the most up-to-date and easy internet providers is about 90% today (Statista, 2021). When considering this data and figures, it is possible

to predict that almost the whole world population will have connected to a network in near future. Particularly conspiracy theorists or some futurist segments may describe this situation as a violation of reality, an end of known existence of humanity. On the other hand, many segments considering the issue on other aspects argues the necessity of this situation for the right orientation of the relationship established with nature, production, world, consumption and material cycles. Whether this situation would be positive or negative (or its potentials) is the topic of another discussion according to content of the study. Even so, it is possible to said that the interest and content established with the culture, cultural and living will be renewed and revised. In this context, existence of new public spaces, urban spaces and meta, indeed new designs shaped with this network to which the humanity is connected can be expressed as an obligatory attitude. When considering smart furniture, smart spaces and urban spaces as the general providers, it can be said this attitude is already happening in reality. The elements of communication leaving a mark on individual and social memory are becoming facts of living and indispensable within this reality.

Precisely, this undeniable reality is causing change in the concepts like place attachment, space attachment, regionalism which have been known and discussed for years in architecture and design field. It is making both design element, production and consumption placeless, homeless and zoneless. And even as a deeper discourse, it is making these concepts independent from time and space. Experiential relationship established with time and space is the deception of a continuous dynamic movement in the form of a pattern that is both being shaped by itself and consciously shaped by individuals. This dynamism – regardless of whether being intervened or not – is moving step by step and existing in its own essence. This existence is based on the culture and cultural relationship at the point of approaching to optimum. Robert Park from Chicago School describes this existence on the basis of urban sociology as follows:

...the city, once it is established, behaves like a great mechanism that selects individuals one by one from the whole population and places them the most appropriate regions or localities almost in a faultless way... (Park, 1952: 79)

This being constantly puts an impact on both the collective memory and all concepts that affect/shape that memory. The experimental relationship between time and space has continuously created a topic of discussion-a paradigm in the design environment. While Heidegger associates this pattern with “time and space through being and experience” (Heidegger, 2011), Deleuze and Guattari associate it with “movement and action” (Deleuze & Guattari, 1990) and Harvey with “the speed of action”. Stating that space regulates time’s distribution / selection and time shapes space’s structure; Harvey suggests it is not possible to think of a reality that reveals a traditional space experience due to the concept of speed in the action of living for today’s

reality (Harvey, 2010: 226-237). This sociological being which is existent on the global scale become a depiction of a reality that is not dependent on space. For example, although telephones which were used with fixed lines before mobile phones or wireless connection used to give the individuals the opportunity of reaching what was distant, this opportunity was realized within a pattern that was dependent on space and place. In other words, land phones were tools which were spatially dependent on the house, and interaction and experience were realized through spatial contexts. On the other hand, mobile connection moved this situation from certain spaces to “everywhere”. The ability to exist everywhere can indeed be described as one of the main rules that give rise to “being placeless” for not being directly dependent on space. Today, this situation allows for being virtually existent at any place on earth and even at many places at the same time while being physically existent at a single place, beyond not being dependent on single place. At this point, considering being placeless through concepts such as *metaverse* or virtual reality, it is possible that there will be unlimited digital entities and copies which do not have an equivalent in the physical reality in the future. Considering today’s technological and social status, virtual realities can be suggested as the main provider of this relationship between digital copies (digital copies as a simpler expression of Jean Baudrillard’s *Simulacra and Simulations*) (Baudrillard, 2011) and human’s self. Mobile devices, internet access, new generation technological communication tools and installations reinforce this possibility. Although it is possible to read this situation as being able to communicate more and exist in more moments, actually, it destroys the real communication and socialness, and it is not able to reach reality as a virtual entity. Marc Auge describes the relationship established with place in the spatial experience as an identified relationship and an area which can be evaluated in the historical context and says it does not assert a defined identity for “what is not place” and causes loneliness on the individual and social scale (Auge, 1997: 85, 112-113).

Although this reality that the generations after 2000 were born into includes acceptable qualifications for the generations after the ‘80s, it is possible to say that people who are 50 and older today are challenged in adapting to this lifestyle. The adaptation challenge at this point can be evaluated based on a state of not accepting, not being able to accept, not being able to adapt to a reality which has been created with the concepts, not merely based on the modes of use of a technological tool or equipment. Although mechanical skills can be acquired with certain repetitions and experiences for these generations, it is not that easy to shape the collective memory. Likewise, it is possible to speak of a new social life and urban life created by new generation communication tools and equipment. Furthermore, there are individuals who live in the expression of a new reality (virtual existence) today. However, (despite related studies in the literature) considering it on the level of public awareness, it still cannot be completely

stated that this situation has completely been acknowledged or used to. However, when it is focused on as a sociocultural reading, it is possible to speak of a few main elements. The first of them is that communication tools, equipment and technologies increased all kinds of intentional and unintentional communication opportunities, whether individual or social, productional or consumptional. At this point, there are also interactions that individuals are exposed to other than their wishes and desires in addition to the interactions they are intentionally willing to establish. Increased communication can be held subject to both positive and negative assessments. Another point is that these tools and equipment changed the form, shape, being and impacts of communication. This change creates a situation, where physical activation is less, in-person meetings and actions have rather been reduced; on the other hand, it is possible to be in communication with any desired person at any desired moment, independently from time and space. As another consequence of remote communication, another situation emerges, which affects the ways, behaviors, practices and ethics that determine individuals' relationships. It can be suggested that limits are mutually drawn between individuals to prevent any extreme situations in in-person relationships and communication happens within an ethical framework to not overstep these limits. In physically remote communications, on the other hand, individuals can be more relaxed and threatening as they are not in person and act outside the ethical framework as it is not possible to take a physical action.

The "changes" in the ability to communicate can be defined as another element. The body language, mimics and poses that have been accompanying verbal communication techniques for hundreds of thousands of years have been reduced by an observable amount in today's reality and started to be disregarded due to the existence of remotely established relationships. These communication supporters are being replaced by icons, visuals and repeating scenes (can be thought as short videos). While the meaning of a sentence can be easily conveyed to the other person with supporters such as emphasis and mimics etc. in in-person communication, when the same sentence is transferred in writing, it is held subject to interpretation by its recipient. This interpretation process includes an estimation algorithm that covers both the process of bringing together the essential meaning of words and their meaning in the sentence, and the integrity of the conversation and the entire relationship established with the person that is being talked to. In other words, the recipient of the message has to interpret the related sentence in the moment. And, of course, this situation can cause an ambiguity between the sender and the recipient. Just to prevent this exact situation, this written communication methods is served-used accompanied by a universal iconographic language in addition to the alphabet and words and abbreviations. This iconographic language comes as the abstraction, representation and imitation of gestures, mimics and poses which are existent in reality (a tiny crying icon like a person saying

something with a tearful expression etc.). Two different icons (emojis) put at the end of the same (written) sentence completely alter the way the sentence is understood, and creates a code between the sender and recipient as a representation that describes the recipient how to understand the message. And this situation can be interpreted as an indication that a new communication mechanism (on the global scale) has occurred in reality.

It can be stated that the concept of being me rather than being a society has started to increase among shapes and beings which were reshaped by this and many other similar variables, and from the end of the 20th century up until today (Toffler, 1998: 469) people now completely act under the light of individualism. Easily accessible mobile tools and equipment carry the communicational element to every place and every time, and reduce the obligation for directly in-person communication. Furthermore, avatars as digital entities, in place of individuals, can socialize in virtual places. This situation is considered by Sökmenoğlu as individuals' participating in what is public without their own body, only through their thoughts and reflections (Sökmenoğlu ve Çağdaş, 2005: 285-289). The human model, that is existent in the virtual place and independent from time and space, increases the ability to move on the global scale. On the other hand, this ability of movement again functions as a catalyst for a global and even mono-centric capitalism and cultural sales.

In today' reality, some of the studies conducted in this field demonstrate that these technologies demonstrate that living and culture are the feeders of humanity's benefit and utility value, others suggest the complete opposite and demonstrate that the cultural structure has weakened, and the utility value is negatively (as an individualist) affected by weakening social relations (Kurfürst, 2011: 136; Park, 2010: 2-6). Examples such as the weakening of the relationship established with what is public, establishment of a system that is from home to work, from work to home, transitioning of living from social to individual, getting distant from the reality with the existence in the virtual space, challenges in real physical interactions, weakening of mimics and poses, loneliness and efforts to exist in unreal worlds-environments can be given as examples to the negative aspects. Additionally, as indicated in many futuristic works, it can be said that mostly or completely being in the virtual life physically moves the individual away from the required mobility, and leads to weight gain, obesity and fattening, stagnation and muscle weakness (Mostow, 2009; Stanton, 2008). On the other hand, examples to the good aspects of technological tools and equipment, communication platforms, social media and virtual realities can be listed as offering the ability to communicate independently from time and space at any desired moment, easier access to information, and the ability to easily communicate with physically distant persons. Andrew Laing, in his work in 2013, as a summarization of this situation, says although

technology is a tool that offers huge benefits, allows for effective time management and makes movement in place more possible, it has not replaced the physical space yet and in-person communication is still much more important in economic relationships (Laing, 2013: 9).

Another output data with regard to today's reality at this point can be described as the ability of communication tools and equipment to deterritorialize "movement" in space, spread it and centralize movement as multiple-step. To give an example to this situation, deterritorialization of movement is the ability of a business meeting to cover both different cities and both different countries at the same time. The ability to centralize it means the ability of this meeting to exist with every participant and the ability of every participant to become a new distribution network or organizer. And this situation manifests getting distant from the physical space and disintegrated from the public space as a representation of the ability of the entity in the virtual environment to exist at anywhere at any time in the physical reality.

Communication Instruments and Design

Communication tools and equipment and their designs which lead to the occurrence of many cultures and habits on the social scale are observed as elements that are discussed, sensed, followed, shared and create reactions in individuals. Communication and communication tools and equipment which develop and change with both individual and social needs have always been included in an interaction between individuals in the history of humans. While this interaction was woven with physical realities in the past, it is gradually getting into the shape of completely digital entities today. Communication that leaves the physical reality also changes its existence in public spaces. It can be suggested that public spaces that Hannah Arendt describes as a table around which individuals sit and communicate have now started to shape themselves around software in this new reality (Arendt, 2012: 92-95). Public spaces, from the traditional theoretical framework, are described to involve many actions, where the residents of the city exist, shop, rest, socialize, enjoy etc. The potential exhibited by a qualified city while fulfilling these conditions should create an area that is open to new relationships and experiences (Hampton vd. , 2014:5). On the other hand, socialization experiences that are realized through digital instruments exist in a reality in which the individual does not even leave their room and which does not allow for any unimaginable and unpredictable and unknown situation can happen. On today's conditions where the individual socializes with the relationships establishing in this safe space that is completely away from the creativity of what is chaotic, and this fake expression constitutes the reality, the design of communication tools and equipment should also be developed again to serve these paradigms.

It can be stated that the design of communication instruments is a tool serving

for the function most fundamentally in conventional and traditional communication. Design paradigm of stationary telephone is mostly based on function. Of course, it includes some concepts like ergonomics, color, aesthetic as the inputs, this percentage does not exceed 15-20% (as an average value). The fundamental design input can generate consumer durables serving for function. At this point, stationary telephone is an object that is stable in a certain place of a home (wall-mounted in more modern versions), cable of which extends in a certain area, do not need battery and charge, and is designed to singularly call and speak on the phone, in other words to contact with someone who is not physically there at that time (some different models like battery-powered, chargeable, screen, wireless models have been released before starting to use mobile phones). These objects include some designs which may be discussed as aesthetic, ergonomic matters as long as it fulfills the function. And the structure fulfilling this function includes a mechanical formation. Typing or dialing relationship with one key actually includes a mechanical action. On the other hand, today the same function is completely shaped around software, existing as dependent to battery and merely does not contain any physical-mechanical function. So, designs move away the concepts of ergonomics and aesthetics from the product as far as possible. More simplistically, when you go to buy a phone as a new generation communication tool, the first words of the seller will be soft data like phone memory, speed, battery volume, data processing capacity etc. When this communication tool is examined in aesthetic sense, it seems as designed almost the same by every firm with slight differences, when looking at in the sense of ergonomics, it has almost no questionable ergonomics instead of carrying in a pocket or bag. Although there were some ergonomic criteria calculated in proportion with thumb size in firstly released touch screen phones, today even this issue is solved with software (e.g. keys where the finger can catch up with different clicks on the screen, interchangeable key icon locations). At that point, the example of mobile phone also includes tablets, smart phones etc. Every tool that has the capacity of connecting to internet in software sense becomes a meta that has the same communicative power with mobile phone. Any major concepts of ergonomics, form, aesthetics are not mentioned for any of them; all appear as designs including absolute software power and a shell holding this software (not really cared). In short, the concepts of ergonomics and aesthetic do not even have a share of 5% in design of today's communication tools and equipment. In other words, design parameters of communication tools and equipment have almost completely changed in recent 30 years period.

At this point, the fundamental function (communication) fulfilled with software constitutes the reality of meta. The relations established with these meta reveal the relationship pattern of individuals and the reality of society. This socially existing situation shapes the public, urban space and living. Consequently, production and consumption steps are existing within the framework of these elements and generate themselves

with this reality.

Designs have started to be schemed with new criteria within the framework of these realities. Digital part of interface design has gained significance. User experience has started to become interaction-oriented. The relationship established with senses has started to be primarily established with vision and hearing. Tactual feelings and needs have tended to be lower. In addition, reshaped daily life has changed and remodeled interpersonal interaction, changed the relationship established with meta and evolved to a reality composed of remote existence. When the capability of socially existing in virtual reality has improved, the capability of existing every time in every place has come into question. Conventional meeting points, social spaces have started to lose their popularity. Based on this, it can be stated that physical spaces will become less common in the future. Likewise, virtual experiences enable to do all kinds of performance and actions as independent from time and space. Richard Sennett describes this situation (today's public sphere) as something just used to go to a place from another place (Sennett, 2010: 29).

Communication instruments and design are shaped with the paradigms which are totally result-oriented, do not enable surprise experiences, which are far from aesthetic and ergonomic questions, existing in rapid movement capability and placelessness, just fulfilling the function of connecting user to a network-universe but not really caring about the rest, and enable to include dependence-producing interfaces and actions.

Conclusion

The speed of development in communication tools and equipment and their design has considerably increased during the 21st century particularly because of the existence and possibilities of internet. This increase has not only reshaped the reality but also differentiated living from the commonly known one. The relationships established both with meta and individuals and public-urban spheres, space have changed. At this point, design parameters of designers have also changed and still keep changing. Software, as the functional provider rather than physical reality and characteristics, has relatively got ahead of design.

Social memory and urban memory are being reshaped. Accordingly, the interaction among generations is increasingly weakening and the ability of empathy tends to reduce. Identities, belonging and social memory of individuals are being reshaped with virtual realities instead of reality and concepts. Almost everything from shopping to dating, entertainment to daily works move away from physical reality and tend to exist virtually. The concept of movement has pulled away from this physical reality and become independent from time and space. The communication technologies which

enable the existence and continuance of this state take individuals away from what is social. Individuals moves away from public sphere and retreated to their personal spaces where they have all kinds of communication, possibilities and access.

Individuals and naturally societies started to exist in a virtual reality. This reality makes individuals dependent to themselves both by feeding reward mechanisms and motivation of being liked. The word "share" has lost its original meaning and come to an existence in a new virtual reality.

In this context, it is predicted that diversity and speed of development of communication instruments will increase more and the interest and care for virtual realities will rise further. There is a continuous increase in individuals' interest in places (virtual spaces) where they can own many things they had not been able to own previously and become new persons different from themselves. The situation where they can experience the imitations and simulations of things, they could never experience in reality, by means of these virtual realities becomes attracting. For that reason, the design of elements by which virtual reality is connected suitable for both individual and social use will become widespread. New designs, as the provider of software that transfers our senses and perceptions already existing in physical reality, to virtual reality will be released. The relationship established with body shall be reconsidered in new designs. Both wearable technologies and product designs and new physical interfaces in the form of items attached to body will be developed. Particularly, some designs capable of serving to the five senses physically will be launched. Some product design which give predetermined physical feedback to human that witnesses the existence in virtual reality will come into existence.

In this context, the primary thing needed to be mentioned by talking about communication instruments and designs is the existence of software rather than design. It is possible to adapt almost everything allowed by software to almost every product. As a memorable motto in field of design, the phrase "form follow function" has been losing its validity at that point; and becomes shallow like "form follow software". It has been become possible to add a function into any geometry by means of software instead of mentioning about a geometry that constitutes the reality of the function that is needed. The relationship between individual and meta has moved away from its commonly known meaning and completely turned into the software possibilities. Individuals will be existing in simulations by using such designs. In fact, it is quite close for us to see the times this reality is more valuable and preferable than physical existence. As a provider of this experience, it is predicted that the discussions on designs composed of an unlimited number of the same software in different shells and design parameters which question the relationship established by these designs with human body will become increasingly widespread in design environment. It can

be stated that dependency to this situation will completely change both perception and physical structure of individuals, relationship established with space and social life.

The relationship established with communication tools and equipment has become an extension, a basis for individuals, far from just being a function provider meta (The studies held in field of psychology also indicates that). In his work called Technology as Extension of Human Faculties, Philip Brey describes technology and technology objects; presents an expansion expressing that the human body expands its physical and abilities. Expresses that technical objects expand the human body by multiplying and strengthening it (Brey, 2000: 1). Ernst Kapp, Marshall McLuhan, David Rotheberg; they examine the spatial relationship of the body and technical instruments in the same context.

Communication tools and equipment like mobile phones have merely turned into a necessity, a limb instead of just being a meta. The designs serving for this reality are moving individuals away from the known reality day by day. And the life and living reshaped with these realities evolved to a state "the metas we previously owned are now the owners of us".

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Financial Support:	It has been reported that this study did not receive financial support from any person/institution or organization during the research and writing phase.
Statement of Support and Acknowledgment:	
Double-Blind Peer Review:	External-independent
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