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Culture and Society in the Digital Age

Ilya Levin [1,*] **and Dan Mamlok** [2]

[1] Department of Mathematics, Science and Technology Education, School of Education, Tel Aviv University, Tel Aviv-Yafo 69978, Israel
[2] Department of Educational Policy and Administration, Tel Aviv University, Tel Aviv-Yafo 69978, Israel; danmamlok@tauex.tau.ac.il
* Correspondence: ilia1@tauex.tau.ac.il

Abstract: This paper aims to examine a theoretical framework of digital society and the ramifications of the digital revolution. The paper proposes that more attention has to be paid to cultural studies as a means for the understanding of digital society. The approach is based on the idea that the digital revolution's essence is fully manifested in the cultural changes that take place in society. Cultural changes are discussed in connection with the digital society's transformations, such as blurring the distinction between reality and virtuality and among people, nature, and artifacts, and the reversal from informational scarcity to abundance. The presented study develops a general model of culture. This model describes the spiritual, social, and technological facets of culture. Such new phenomena as individualization, transparisation, and so-called cognification (intellectualization of the surrounding environment) are suggested as the prominent trends characterizing the above cultural facets.

Keywords: digital revolution; digital society; digital culture; information technologies; web presence; online-identity; social media

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1. Introduction

We live in a dynamic world, which is continuously and rapidly changing. The ubiquity of information communication technologies (ICTs) has transformed the human experience. The influence of current digital technologies on the lives of individuals and communities is evident, and one may claim, unprecedented. Over the past three decades, technological convergence of communications and computing has evolved and flourished. The internet, the World Wide Web (WWW), and mobile communications have become an intrinsic element of today's society and each of its members' lives. Our everyday life experiences have been immersed in a new reality, which is significantly dissimilar from the habitual realities in which people have lived for thousands of years.

It is evident that the widespread use of ICTs platforms constructs and arranges virtual cyberspace that has become an integral part of people's existence. Yet, cyberspace does not replace the habitual reality but rather supplements it and becomes its integral part. However, perhaps the most crucial change relates to the replacement of the traditional concept of the human being as a separate entity by a new ontological self-perception of human beings as an information organism, interconnected with the entire world. The information revolution has brought the capacity to easily communicate with every other person and to access myriad forms of information and knowledge without any concerns.

In addition, as a result of significant advances in artificial intelligence (AI) [1,2], today's digital technologies are becoming increasingly smart and personalized. The interaction of almost every human experience is mediated through a sophisticated shell connected to big data [3]. This shell provides a person with context-oriented information prepared exclusively for that individual, which is necessary for making a wide variety of decisions. Thus, the principles of human behavior, which mostly consist of sequences of these decisions, have been changed. Namely, because human conditions are changing, their worldviews

are contingent on both their immediate (physical) and virtual spaces. For that reason, the central question posed in the *Onlife Manifesto* [4] is "What does it mean to be human in a hyper-connected world?"

In our paper, we explore the ramifications of the hyper-connected world on human experience by focusing on the digital culture phenomenon. We consider culture as a kind of information shell, which unlike nature, is a human creation. The informational essence of the concept of culture serves as a point of departure for this paper. We aim to identify prominent cultural features of the digital society. We propose a model that illustrates various phenomena and processes of the digital society, both those discussed in the scientific literature and those reflected from everyday experiences.

There are several known approaches to studying the digital shift. It is considered as a technological [5], or post-industrial [6] revolution, a transition to an information [7] or network [8,9] society, and a revolution in human consciousness [4]. All of these approaches complement each other to create a whole picture of the essential phenomenon of this epoch.

Among the most important contributions to examining the digital turn through the lens of cultural studies is the work of Dan Sperber. In *Explaining Culture: A Naturalistic Approach* [10], he proposes a new understanding of culture. In brief, Sperber suggests that culture is not a space inhabited by people, but rather a network whose outlines allow exploring how individuals' behaviors create sustainable, long-lasting patterns. This interpretation of culture is used by Acerbi [11] for defining digital society's culture.

A more skeptical and dystopian understanding of digital culture is offered by Bernard Stiegler, who suggests that current digital culture, fueled by the big corporations, degenerates and disrupts social life. The obsession of the big corporations on fostering consumerism, using seductive and sophisticated algorithms, redefines human experience [11]. Akin to the critique of Horkheimer and Adorno, in their critique about the culture industry [12], Stiegler warns the current nihilist zeitgeist entails the loss of knowledge and the trivialization of intellectual and scientific knowledge. Stiegler describes digital technology as a pharmakon, a Greek term that can be understood both as a cure and a poison [11]. The intrinsic tension of digital technology is reflected, on the one hand, by its promise to provide more opportunities to human culture, but on the other hand, by its destructive powers. Such powers endanger hermeneutic knowledge, draining off one's capacity to reflect upon experiences and breaking social solidarities. The proliferation of misinformation and the growth of divisive and antagonist political spheres are the epitomes of Stiegler's warning of living in an age of disruption.

Drawing on Stiegler's approach, Ganaele Langlois explicates the fine relationships between the embodied self in the digital networks and the technoscientific rationality that governs those networks. She contends that in light of the transformation of human experience, it is important to critically observe how the self is mediated and recreated through online spaces. This claim is important for the care of the self and for understanding how digital technology has restructured culture and society [13]. The restructuring of society and culture can be related to the transformation of the human experience. In this respect, Jonas Schwarz argues that the immersion of technical means in everyday life, there "are no purely 'social' phenomena; all human activity involves some degree of technical integration" [14].

The integration of online spaces in human culture is further discussed in Alberto Acerbi's book, *Cultural Evolution in the Digital Age*, where he portrays several dimensions of human experienced that have been transformed as a result of the communication revolution. Acerbi complicates the ways in which different phenomena such as the availability of knowledge, the opacity of interaction among unknown users, and the fluidity of knowledge (which he compares to the Chinese Whispers game) has transformed our sense of being [15].

In light of the growing interest in the ways in which digital environments transform human culture, this paper proposes a theoretical approach based on cultural studies of society's digital transformation. Our examination is based on cultural-historical approaches [16] and particularly aims to complicate Luciano Floridi's theoretical framework,

as introduced in the *Onlife Manifesto* [4] This paper will focus on some major transformations in human experience and social culture. We argue that different dimensions that are examined in this paper can deepen the understanding of digital society's culture.

The paper is organized as follows. The web presence concept, which is essential for the proposed approach, is introduced in Section 2. Section 3 discusses the fundamental digital transformations of society. The proposed theoretical model of culture and the digital society's culture are introduced and discussed in Section 4. We conclude in Section 5 by discussing how cognification radically changes the human experience, and how it reshapes one's worldview.

2. Web Presence

Before elaborating on the different dimensions of society's digital transformation, it is essential to recognize the ontological shift we have experienced since the advent of the internet. The information revolution is not limited to a more advanced technological solution for attaining knowledge or completing various daily tasks. Rather, it signals a shift in the ways in which we, as individuals and societies, understand the very basic idea of what it is meant "to be." As such, our new ontological state can be portrayed, at least to some extent, as the information organism. We call this new ontological state "web presence," referring to the shift of humans' presence as perceived in hyperconnectivity times, compared to humans' presence in the pre-digital era.

In its first years, cyberspace was perceived (and de-facto served) as a convenient communication technology platform. In particular, even an interface (browser), which converted the internet into the World Wide Web (WWW), was perceived (and even now is often conceived) only as hypertext, and just being more advanced and more convenient to use than a book. Yet, it seems that focusing primarily on technological achievement and its benefits glosses over the intricate socio-cultural layers that significantly influence humans' everyday lives. Indeed, until the emergence of Web 2.0, the hegemony of a more reductionist approach was rooted in the assumption that the internet served as the global storage of information.

Much of the substantial change of how we perceive the meaning of what it means "to be" in the digital age relates to Web 2.0., which has profoundly changed the user experience. In brief, moving from a one-way relationship (the user can seek or attain information) to a two-ways-relationship (In addition to access various types of content, one can produce content), has transformed user experience from being passive to active [17]. In addition, the widespread of smartphones have shifted the notions of space and time, vis-à-vis the ways people conduct their daily lives. The immediacy of communication and the constant availability are parts of the cultural change that we experience in the digital age. The embodiment of digital technology thereof is indispensable not only from how one conducts his everyday life but also from how one's ontological existence is constituted.

William Mittchell [18], an American educator and architect, described the above transformation. According to him, the proliferation of the internet and the emergence of artificial intelligence have influenced how people understand their own identity. Mitchell suggests that the separation between man and machine is not valid any longer. Comprehensive virtual networks are practically fusing with the human being on a biological level, leading to awareness—the self as a cyborg dispersed in space. In terms of how time is conceived, the hyper-connectivity coupled with efficient technologies led to the expedition of a plethora of actions. In terms of space, one can work, communicate, consume, and conduct many other actions from almost every place on the globe.

Inevitably, those changes reshaped how people interact among themselves, with nature, and in how they recognize their own self-conceptions. Among the many qualities of cyberspace, it involves a degree of unpredictability. Artificial intelligence, for example, stipulates new modes of action, and as result, reshapes humans' experience [19]. In addition, because living in a digital environment is a relatively new phenomenon, the history of our new cyber habitat is concise. For that reason, digital society's current state

is often called "digital feudalism," [20] as estimated similar to the corresponding state of the early medieval period expressing by this belief in the approaching era of Digital Enlightenment [21].

In contrast to other emerging technologies (e.g., nanotechnologies, gene engineering), cyberspace is relevant to everybody since it is our new reality, i.e., everybody lives or will live in it shortly. Cyberspace has a direct influence on everyone's life. The ubiquity of digital technologies, social media, and the network, in general, have influenced almost every domain in everyday life. Because cyberspace has played a more dominant role in humans' lives, it has reshaped our humans' ontological state and can be understood as forming a networked consciousness. The new, digital culture is being formed in namely such a new reality.

Thus, the new reality cannot be seen as the old one, just supplemented by cyberspace. "Systematic research shows that physical space and cyberspace interpenetrate as people actively surf their networks online and off-line", as reported by Barry Wellman [22]. The new, digital environment, combining reality and virtuality, is very different from our usual natural reality. It reconceptualizes how people consider their transition into the digitized world that change conceptions of who people are and how they engage with ourselves and others.

In a specific sense, culture, which can be described as the second nature of a human being, has reached a new level and a new layer in the form of interactive virtual space. In a digital society, a person does not only create a new objective world as it occurs in the "second" nature (culture) but also creates objects of a different nature (e.g., networked, communicative, and multimedia). For that reason, some scholars tend to consider digital society's culture as a "third" nature [23].

3. Transformations of the Digital Society

Determining the essence of a digital reality requires us to recognize the basic transformations of human experience in digital times. These transformations were first formulated in Floridi's *Onlife Manifesto* [4]. The manifesto foresees and reviews the major transformations of the digital society. In our paper, we discuss the following three forms of transformation—the blurring of the distinction between reality and virtuality, the blurring of the distinction between human, machine, and nature, and the reversal from information scarcity to information abundance.

3.1. Blurring the Distinction between Reality and Virtuality

The dualism of "reality/virtuality" is grounded in human history, which can be traced back to Plato's allegory of the cave [24]. The distinction between reality and virtuality in different historical epochs reflected societal norms, values, conventions, and beliefs. For example, in the Middle Ages, which was characterized mainly by its religion and the arts, the virtual component dominated, whereas, in the Industrial Age, the reification took place. While each historical era was based on different assumptions about reality, the aforementioned dualism has always been endured.

When considering the issue more in-depth, from a philosophical point of view, the traditional real/virtual duality is well-known as the distinction between body and mind, between fantasies and actions. The duality has become a fundamental dichotomy of how we think and act [25].

The phenomenon of web presence supplemented has changed the hitherto common perceptions of physical reality. The inexorability of blurring the distinction between reality and virtuality is palpable. In many everyday situations today, it becomes difficult to identify the difference between reality and virtuality. It may even be claimed that there is no reason to limit our worldviews to these two possibilities. By blurring the distinction between reality and virtuality, the digital transformation compromises our dualist forms of thinking. It requires reinvigorating different ways of thinking (e.g., monism, a new dualism, or pluralism), which would help individuals critically develop one's worldview [4].

3.2. Blurring the Distinctions among People, Nature, and Artifacts

For most of human history, distinguishing artifacts from nature was a relatively uncomplicated task. Today, based on the significant advances in medicine and biotechnology, humans and artifacts are becoming increasingly linked [4]. In addition, the extensive integration of smart sensors in human life and the integration of the emerging technologies of the internet of things (IoT) are blurring the distinction between humans and artifacts. The intensive growth of a plurality of advanced artifacts, which are becoming an integral part of our natural environment, contradicts the traditional concept of nature. The remarkable manifestation of the blurring "people, nature, and artifacts" is the emerging integration of artificial intelligence (AI) into almost every domain of the life sphere, which is considered as a total cognification of humans' environment [26].

The digital transformation accelerates the blurring of the traditional divide. The distinctions between the natural and artificial world are changing. As we consider the various ramifications of the discussed blurring, it is crucial to ask: what is the impact of the blurring on the human culture in general and the arts, literature, and education, in particular?

3.3. The Reversal from Information Scarcity to Information Abundance

The third transformation refers to the abundance of information (data), which drastically distinguishes the digital society from its predecessors [4]. Historically, there was always a scarcity of access to information in previous times. Prior to the advent of the internet, the encyclopedic utopia represented the omnipotence of knowledge. This premise of the encyclopedic utopia is that knowledge serves as a normative compass, which directs individuals and societies. The more we know, the better we act. Conversely, mistakes and misconducts, according to this rationality, are associated with a lack of knowledge. In the new digital reality, the most important condition for existence is not our knowledge but our ability to pay attention. Information becomes abundant, similar to natural resources. Our sense of limitlessness has shifted from natural resources to information. This significant change is a direct consequence of the digital turn. Today, there are just a few kinds of activities that do not generate the so-called digital shadow. For instance, the digital devices we use leave a recorded trace of our interactions, online activities, and physical activities, such as our coordinates, interests, tastes, purchases, locations, etc. The scale of such information is globally growing exponentially. It is not to suggest that we should aspire to return to the encyclopedic ideal of information. Rather, we contend that we must learn to navigate the world of information. Clearly, this fundamental shift in our consciousness has a significant impact on human culture. Our notions of what is information and knowledge are changing. People strive to survive in a sea of information. However, we have to bear in mind that this sea is not "clean"—inter alia, it includes various types of manipulated data, information, and knowledge from unreliable sources, which must be accountable. In turn, the informational abundance requires new filtering activities, such as, for example, a digital curation [27].

The phenomenon of data abundance manifests in ubiquitous and unlimited access to a huge amount of data. Today, there is an understanding that intensive and unlimited growth of data leads to the fact that data dominate peoples' lives. Data flows are becoming the ontological basis of the surrounding reality. According to the emerging theory called Dataism, "universe consists of data flows, and the value of any phenomenon or entity is determined by its contribution to data processing" [28]. Whether the Dataism theory is correct is an important research question. Yet, it is already clear that the informational abundance-based transformation plays an essential role in forming a digital society.

4. Culture of Digital Society

The concept of culture includes various definitions. Edward Taylor suggested that culture refers to the various modes of knowledge, beliefs, and ethical codes that consolidate a society. Hershkovits referred to the ways in which humans create a society to become part

of the environment. George Herbert Mead focused on the arrangement of shared behaviors of people in society [29]. Clifford Geertz related to the symbolic elements of culture and the ways those symbols confer socio-historical meanings [30]. The sum of symbols, habits, rules, artifacts, and other societal capabilities are qualities of human culture.

Because culture is contingent upon human creation and its absence of nature, it is unique to human beings. In contrast to human beings, transferring knowledge among animals from one generation to the next one is based on genetics. During life, the experience accumulated by an animal is not inherited by his descendants; each generation starts to get its experiences "from scratch." Therefore, the amount of information available to the genus does not increase from generation to generation.

With the emergence of culture, humans have a special form of storing and transmitting knowledge absent from animals. It is fundamentally new and incomparably richer in its possibilities type of information process. In culture, knowledge is not encoded for genes but for sign systems. Thoughts and notions expressed in these systems are detached from the individual, acquiring independent, non-personal existence. They become social information, the bearer of which is not a separate individual but a social culture. Unlike biological information, social information expressed in sign systems does not disappear with the death of the individual. Culture forms a specifically human, extra-genetic "mechanism" of its inheritance—social heredity. On account of culture, civilizations can document and create their histories throughout generations.

Culture is the informational basis of human society, a vital condition for its existence. As such, culture is inseparable from the information. Apparently, in the information (digital) society, cultural studies are of particular interest.

One well-established presentation of human culture is the form of "three-dimensional space of culture" shown in Figure 1 [31,32].

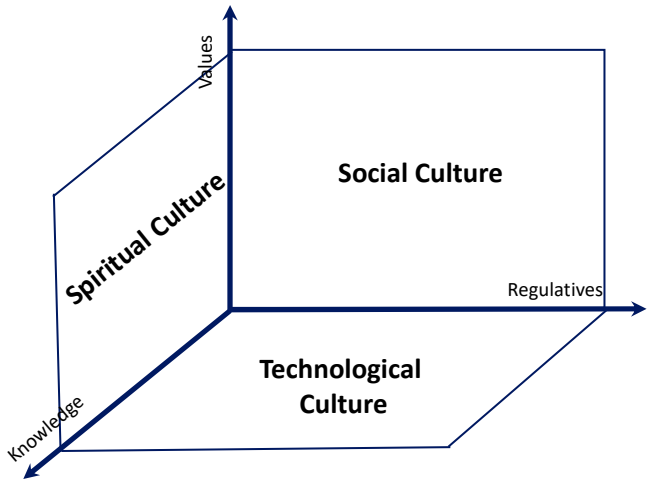

Figure 1. Cultural space.

The cultural space (Figure 1) is formed by three axes—knowledge, values, and regulations. Each couple of the axes forms a plane corresponding to one of the facets of human culture. The spiritual culture is represented by a plane correspondence between knowledge and values axes; the values and regulations axes form a plan correspondence to the social culture; the technological culture is represented between regulations and knowledge axes.

Within the cultural space, the facet of spiritual culture is usually identified as the most influential on everyday life. This facet includes such cultural forms as religion, art, and philosophy. A characteristic feature of all forms of spiritual culture is that they have a combination of knowledge and values in the foreground. Spiritual culture is the "cognitive and value facet" of the cultural space.

Similarly, the cultural space involves a set of cultural forms that determine the social relations of people, and their interactions with society. This includes ethical, legal, and

political culture. These forms of culture reflect social values and ideals, and general regulations of behavior, driven by the aspiration to them. This form of culture reflects social relations, which can be defined as the social culture. In the cultural space, its domain is placed within the "regulations" and "values" axis.

Finally, it is important to pay attention to the construction of technological culture. In its broadest sense, it refers to a culture of mastering and processing of any material, artifacts, performance, production, and designing various artifacts. Knowledge and regulations are necessary and essential elements of the technological culture. Values are placed in a second priority here. In the cultural space, the facet of technological culture lies in the domains of knowledge and regulations axes.

In 2013, the above three-dimensional model was first applied to represent the digital culture [33]. Recent advances in emerging technologies, especially AI and data science progress [34], allow a more in-depth and more accurate representation of the digital age culture. It was the starting point that initiated this paper. In the following section, we present an updated model of the culture in today's society.

4.1. Spiritual Culture of Digital Society

Spiritual culture, in general, is comprised of some distinctive features:

1. In contrast to technological and social culture, spiritual culture is not utilitarian. It is a facet of culture that is distanced from what is known in everyday language as practice. Spiritual culture is essentially unselfish. Its cornerstones are not benefiting or gain, but the "joys of the spirit"—beauty, knowledge, and wisdom. People need it on their own, not for the sake of solving any utilitarian problems;

2. In contrast to other facets of culture, spiritual culture provides people the most creative freedom. Engaging in the spiritual culture is not contingent on utilitarian considerations and practical considerations and can break away from reality, carrying away on the wings of fantasy. The freedom of creativity is already manifested in ancient myths. It also plays a significant role in religions. Unlimited space for creativity is the ground for the creation of the arts;

3. Creative activity in spiritual culture involves a unique spiritual world created by human thought's power. The spiritual world is inimitably richer than the real world because it includes images of unprecedented phenomena in addition to the physical sensations. Even though the spiritual world is filled with a fictional representation of reality, it exists by its laws and impacts our lives;

4. Spiritual culture is the most sensitive facet of culture, the most responsive to external influences. Therefore, it is in constant tension and movement. Sensitivity and responsiveness make it vulnerable and exposed.

The spiritual culture of a digital society is a unique phenomenon. First of all, it is facilitated by its intrinsic connection with the virtual world of cyberspace. It is apparent that as virtuality has become an integral component of life, the network presence, affects humans' spiritual culture. In our times, humans' spiritual world has been immersed in virtual cyberspace, and the hitherto balance of virtuality and reality has been changed. It is manifested by the transformation of "blurring the boundaries of the real and virtual." The manifestation of the digital spiritual culture is reflected in the rapid growth of diverse forms of humans' activities in the network, including creating myriad kinds of texts, photos, and videos of various contents and forms. Prior to the digital age, the production and the publication of contents used to be strictly regulated and were based on a fundamental distinction between the author and his/her readers or viewers. In the digital age, this difference is obsolete, as everyone can be an author.

The non-utilitarian nature of spiritual culture has manifested itself in the digital age in a very unexpected way. A considerable number of essential and high-quality content on the network was created by people who did not need to invest money in its publication process. One can recall how the internet, as a source of reliable knowledge was rejected at the beginning of the 21st century because of the high cost of the project [26]. This grim

forecast of the internet was ultimately wrong and proved the deep connection between human spiritual culture and the digital world.

The ease of accessibility to myriad kinds of information (e.g., news, literature, music, scientific knowledge) has changed the nature of human experience—the ability of any person (with access to the internet) to choose his or her desired content confers new ways in which people construct their worldviews, their relationships with other, and their understanding of what counts as being a fully human. The spiritual culture in a hyper-connected world is individualized, and one may claim—decontextualized. This trend of hyper individualization poses a problem for traditional societal structures, such as the educational system, that is based on practices that standardize and unify teaching and learning. We will elaborate on this issue in our discussion on digital society's social culture in the next section.

The spiritual culture in a hyper-connected world is composed of individuals' predispositions, self-perceptions, and identities. Both types of "blurring" that were discussed in Section 3 are manifested in a new network personality phenomenon. It affects the internal spiritual world of a person and entails changes in the spiritual culture in general, such as the arts, literature, and philosophy.

A human being forms his/her own network personality in cyberspace and includes complex interactions with diverse network personalities and network communities. A "virtual personality" of a person may be significantly different from his/her habitual "real personality." In her inclusive study, Sherry Turkle shows how the freedom to create your own character on social media plays a major role in youths' lives (e.g., by making your own avatar) and reframe human relationships. She contends that while self-presentation was always involved a degree of conflict, self-presentation in the digital age is always mediated through social media [35]. Thus, it is evident that personalization in cyberspace is a new phenomenon, which is connected with one of the most fundamental questions of human culture—"who am I?" Socrates taught, "Know thyself!", Petrarca asked, "who are we, where are we from and where do we go?". The problem of "what is a human being?" is one of the recurrent open philosophical questions.

Personal identity online (PIO) [36,37] is a concept that elucidates how a person presents oneself in cyberspace. The PIO characterizes a style of an individual's behavior in the network, which allows the person to form and exhibit her/his identity differently than in reality. Personality is something that a person develops by him/herself, a model that develops in her/his head, his/her individual identity. This model has evolved in certain places: society, family, and culture.

In contemporary life, the distinction between reality and virtuality is blurred. The emergence of virtual network life as an inseparable part of real life is significant for personality formation. The most intimate thing that one can have—one's own persons, one's own self—are being significantly affected by digital technologies [38].

In the 1980s and 1990s of the last century, the center of the formation of pioneer ideas related to digital technologies in human life was the famous Media Lab. Its founder, Nicholas Negroponte, expressed the first ideas regarding the digital personality in [39], where he predicted humans moving toward an entirely digital society. Seymour Papert, who worked in the Media Lab, and known as one of the forefathers of the idea of a digital revolution in education [40], recognized the influences of personalizing a computer user on the construction of one's identity. According to his constructionist theory, creating a user's identity involves the replacement of the traditional unified curriculum with the personally chosen content. Characterizing the personalization process, Papert used the term "intimacy," emphasizing the profoundly personal nature of learning environments or so-called micro-worlds that one creates in the cognition process. The micro-worlds are free of a social component, making them a pure element of the spiritual culture [41].

Papert's personalization can be seen today as a critical feature of the spiritual culture since it has manifested itself in a growing number of humans who live within personal cultural micro-worlds. It is a direct consequence of our discussion on the transformation of

the digital society in Sub-Section 3.3—the transition to information abundance. Naturally, the situation of information abundance has important implications for human spiritual culture. The accessibility of the cultural wealth of humankind to every member of society is undoubtedly an outstanding achievement. At the same time, this accessibility leads to the individualization of human cultural space. People have the opportunity to choose the content in their studies, work, and entertainment. The main feature of this choice is its individuality. As a result, people find themselves in unique personal cultural micro-worlds, formed according to their inclinations and personal priorities. The formation of micro-worlds is accompanied, amplified, and actively supported by the emerging AI software, which tailors to people with the desired content that "suits" them.

Indeed, the growing influence of AI on human experience merits in-depth examination that cannot be captured in this paper. It would be fair to suggest that individualization might be considered as the primary movement that characterizes the spiritual culture in the digital age. As such, it raises some critical questions related to public life, and especially to education, as it can lead to solipsistic rationality, which decontextualizes contents from every life, and challenges the attempt to create a vibrant social culture, comprised of people who develop mutual responsibility.

4.2. Social Culture of Digital Society

Social culture is defined by regulations, values, and ideals that determine people's behavior in society and their social interactions. The primary forms of social culture include ethical, legal, and political culture. Social and spiritual cultures have a number of essential differences, which are as follows:

1. A person can strive to achieve individual spiritual values, regardless of society's norms. Attaining spiritual values requires an independent effort from individuals since they require a high degree of resilience against social practices and conventions. Artistic masterpieces and new philosophical ideas are born in the minds of individuals, who in some cases spend their whole lives without success, fighting for public recognition of the value of their works. The values of social culture cannot be achieved alone. For example, mercy, equality, humanity, law and order, democracy, and civil liberties are realized only in people's relations. It is impossible to inspire the public by remaining out of social connections;

2. The products of spiritual culture are valuable in and of themselves, even if they exist only in people's imagination and are not translated into reality. Its higher values form the heritage of the "mind and heart" of the individual. In contrast, social cultures' values and ideals are "designed" to implement them in "real" life. Society normalizes people and requires its members to behave according to certain laws and ethical codes;

3. Spiritual culture is not utilitarian. It cannot establish norms of behavior in society and ensure that the desired values will be implemented. At the same time, social culture includes values and regulations, norms, rules of behavior, and interaction of people in society aimed at their implementation. Compliance with these norms and regulations is controlled by public opinion, law enforcement agencies, and the state;

The mentioned collectivity and specificity of social culture is most vividly expressed in the digital society in the new dynamics of public consciousness formation. This point of view has become, practically, generally accepted. A well-known example is the 2010 Arab Spring, which is often referred to as the Tweeter Revolution, emphasizing the special importance of social media in shaping protest emotions and mobilizing protesters. However, one thing is clear—social media are fundamentally very different from traditional mass media. They are fast, dynamic, and, most importantly, personalized. This property of social media is due to the fact that each member of the network is connected with "his/her" community, which matches her/him and that she trusts. Today, there is a growing tendency to consume everyday news through social media platforms, such as Facebook or Twitter [11].

A prominent feature in the network society is its dynamic nature and people's ability to be both consumers and content producers. Effective communication between people

requires fast responses to any networking event. Living in a hyper-intense society makes delayed responses or reactions to contents irrelevant. The rationality of network society renders the idea that effective communication cannot be attained unless there is constant activity throughout the network. In this respect, the process of socialization has been dramatically changed and plays a significant role in today's network society. The network's social character contradicts the hierarchical models of communication, where the principles of vertically arranged status and suppression dominate. The network converts interaction between its users into regular social communication and brings it to a higher level in developing digital society. This type of open and free communication challenges a traditional civil society's concept. Notice that it is the creation of the civil society that is the great achievement of the Enlightenment epoch.

Informational openness is one of the main features of the social culture of digital society. It brightly manifests in the style of using network activity. A person's intellectual, creative action required the author's exclusive copyright on traditional society content. In traditional society, people were used to sharing with others only the results of their work. Even in the early stages of the digital age, people shared just the final products of their creations—media content and social network posts. In other words, they shared their successes [26]. In today's advanced digital society, people started sharing almost everything. They share with others the process of creations, not just the results. This principle is becoming more and more universal, regular, and desirable as a routine practice. This sharing contradicts traditional principles of the ownership of the creations. At the same time, it characterizes an essential feature of the social culture of a digital society.

The transition from traditional forms of creation to a more open space, where people share their contents in different stages, characterize the digital society. This transition is symbolic and significant because it demarcates new characteristics of creativity and reflects a substantial modification to human relationships and human experience. We call the general tendency to constantly share everything "transparisation", as a process of moving to the transparency of human interactions and the transparency of society.

The transparisation of the social culture is supposed to counterbalance the individualization of spiritual culture. These two alternative trends are expected to impact the shaping of digital society's social culture. The study of the interaction and joint dynamic of individualization and transparisation is closely related to essential notions such as "relational self" [42]. It refers to aspects of the self-associated with one's relationships with significant others.

Digital technologies have brought a new understanding of the notion of the relational self [43]. The generally accepted in Western civilization perception of self as primarily individual. In contrast, relationships with others are secondary and even often undesirable. On the one hand, this understanding of self is focused on the concepts of personal freedom and privacy. On the other hand, this personal self may contradict social values.

In contrast, the relational self-manifests itself, namely in society. Martin Buber [44] argued that the self-manifests itself only in a relationship with another. This claim is confirmed today by the phenomenon of social networks, which facilitate connections among people by unprecedented opportunity to create an almost infinite variety of social relationships.

By claiming that spiritual culture is individualized and that social culture tends to be transparent, we support the relative self's trend. It allows us to explore this phenomenon in a new way. By asserting that the phenomenon of individualizing spiritual culture enriches Western attitudes toward the self, we, at the same time, discover the nature of a relative self that is based on transparency.

4.3. Technological Culture of Digital Society

The following features of technological culture are noteworthy:

1. If spiritual and social cultures are aimed at creating values and ideals, then the technological culture focuses on what and how to do it. The "value dimension" is

only present in a technological culture as evaluating the technical parameters of activities and their products. Technological values are efficiency, precision, truth, economy, strength, etc. They can only be instrumental values that serve to achieve some fundamental values set by a spiritual or social culture [32];

2. Technological culture is utilitarian. In this respect, it acts, to some extent, in contradiction to the spiritual culture. In general, since culture develops unevenly, there is a competition between its technological and spiritual dimensions. Because society prioritizes the technological culture, its technical values colonize its spiritual values. The denial of spiritual values coupled with current economic organization reinforce the spread of consumerist society [11];
3. Concerning the spiritual and social cultures of technology plays a subordinate service role. No achievement of science and technology can serve the ultimate goals to which society or mankind should aspire. A technological culture's progress must be evaluated and controlled through the values produced outside the technological culture [32];
4. Technological culture is a universal and indispensable condition for all cultural activities (or at least in the developed countries). Any cultural worker, whatever their field of work, must be familiar with the technology of their work;
5. In the course of history, the technological culture evolves from mysticism to rationality. Since the 17th century, technological and scientific developments have replaced mythological and religious hopes for gaining a better future through miracles or transcendental powers that cannot be rationally explained [45]. Contemporary technological culture is based on technoscientific rationality. It is not to suggest that this rationality is superior to spiritual beliefs. Yet, it is to suggest that technoscientific rationality plays an essential role in reshaping almost every domain in current culture.

Indeed, the technological culture of the digital society is contingent on information technologies. The transition from material technologies to information technologies is symptomatic of broader phenomena. The digital age signifies the transition to what we described as the technological culture. After all, it is digital technology that is the foundation of digital society, and they, in turn, are associated with both spiritual and social cultures of man as a tool and as the basis of the media environment.

In light of the abundance of truly amazing, and sometimes magical phenomena of digital technology, it is challenging to identify prime trends that characterize the essence of the technological culture of digital society. Let us take advantage of the analogy. Let us turn to the technological culture of the industrial society. The basis of its technological culture was electrification. The advent of electrification, or energetic hyper-connection, provided energy to the remotest places in the world, made possible the progress that led to the success of the 19th century and was the ground for the industrial revolution, changed the world. The transition from energy to information society led to the idea of cyberspace as a candidate for the role of the main phenomenon of the digital age. However, today it already becomes clear that today's cyberspace can be understood as an effective tool for accessing information and knowledge and as a medium that significantly affects how people construct their worldviews. This is due to the spread of AI in almost every sphere of human experience. Kevin Kelly called this phenomenon "cognification", characterizing it as follows:

The AI on the horizon looks more like Amazon Web Services—cheap, reliable, industrial-grade digital smartness running behind everything, and almost invisible except when it blinks off. This common utility will serve you as much IQ as you want but no more than you need. You'll simply plug into the grid and get AI as if it was electricity. It will enliven inert objects, much as electricity did more than a century past. Three generations ago, many a tinkerer struck it rich by taking a tool and making an electric version. Take a manual pump; electrify it. Find a hand-wringer washer; electrify it. The entrepreneurs didn't need to generate the electricity; they bought it from the grid and used it to automate the previously manual. Now everything that we formerly electrified we will cognify. There

is almost nothing we can think of that cannot be made new, different, or more valuable by infusing it with some extra IQ. In fact, the business plans of the next 10,000 startups are easy to forecast: Take X and add AI. Find something that can be made better by adding online smartness to it [26].

The cognification, in our view, clearly demarcates the growing colonization of the technological culture in the digital society. The basis of the technological culture of the digital society, i.e., cognification, has replaced electrification—the main trend in the technological culture of industrial society. In the digital age, we live in an intellectualized environment connected to global networks. The traditional environment was based on natural laws and, in a technological sense, was the source of energy as the foundation of life. In contrast, the emerging environment is determined by machine learning technologies based on big data analysis. It replaces energy with information as the main source of human life.

The cognified environment mediates human interactions and is even participates in the interaction. Thus, the technological culture integrates spiritual and social culture, forming a coherent culture of the digital age.

5. Conclusions

In this paper, we presented a theoretical study of the digital revolution as a cultural phenomenon. We have developed a culture model and described digital society's spiritual, social, and technological cultures.

The presented model reflects known digital transformations of society and opens a way to the future study of the digital society by analyzing expected emerging anthropological, social, and technological phenomena.

We formulated trends characterizing the spiritual, social, and technological facets of digital society's culture. These trends are individualization, transparisation, and cognification, respectively. In other words, human beings in the digital world develop their own unique spiritual culture, opening it to others and enriching themselves with the cultural achievements of other members of society. This openness characterizes the social culture of the digital society. The digital society's technological culture is based on the unique phenomenon of cognification, radically changing our view of the world around us.

Despite the diverse scientific literature devoted to the digital revolution, as far as we know, the study of the digital revolution as a classical cultural phenomenon is undertheorized. We have tried to fill this vacuum and hope our study's initial results will initiate new research in the field.

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