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The Multifaceted Challenges of the Digital Transformation: Creating a Sustainable Society

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Abstract: Technology and society are deeply interconnected, as technology emerges from the existent cultural framework and consequently shapes society on the micro level of human interaction and the larger scale of social structure and system. This paper tackles the digital transformation present in Industry 4.0 and Society 5.0. We analyse disruptive digital technologies by focusing on the social or cultural context of their creation, their core philosophy, and the impact they seem to have or how society may be shaped by their extended implementation and adoption. As technology is basically not neutral in its purpose, serving different personal and organizational interests, we use a multiple point-of-view approach to our study in order to elaborate an encompassing representation of the phenomenon.

Keywords: *digital society; Industry 4.0; digital anthropology; human-computer interaction; computer mediated communication.*

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1. Introduction

Social change has been conceptualised in terms of the evolutionary paradigm, the structural functionalist model, the conflict theory, where it is seen as being either the perfecting of a system, an adaptation to change of interdependent elements, or the dynamic competition of groups, respectively. Social change may be described as a cyclic process of fluctuation or a linear process of accumulation, and it may happen gradually or suddenly, peacefully or violently.

Systems that evolve gradually towards a global optimum may easily become stuck in local maxima points, which for a society might mean living below the threshold of long-term sustainability. Escaping such a configuration implies traveling a long downhill path in the search for a better future. The cost of such a journey for a society with a powerful technological footprint, is directly proportional to the time spent in lower optimal conditions. In a gradual evolution process the cost is high.

We are at the current moment experiencing a COVID-19 disruption that accelerated the social change on multiple levels including the diffusion of digitalization. It is even possible that this is not a mere acceleration on the same trajectory, but a leap onto a novel path that truly reflects our goals as humanity. We should see ourselves as being spared the downhill journey, and suddenly standing on low terrain with new heights of opportunities lying ahead.

Technology (i.e., “science of craft”, from Greek τέχνη, *technē*, “art, skill, cunning of hand”) is a form of art that bridges culture and social structure, and in the process reshapes both (Bell, 1980). Understanding our relationship with technology is a dialectic enriching process, a journey of humans from the past to the future and from within into the open world. Digital Anthropology (Horst & Miller, 2020) may guide us in designing the Digital Society (i.e., Society 5.0 - the knowledge society) as a true reflection of humanity.

This paper tackles the challenges of the ongoing transition towards a sustainable society through the digital transformation and is organized as follows. Section 2. presents a chronological evolution of society, along with the signature technology of the time. In Section 3. we present a macro and micro scale analysis of the diverse social phenomena that arise when humans and state of the art digital technologies interact. Section 4. discusses the implications of our findings and contours our vision on the subject.

2. A World of Change: The Dynamic Relationship of Society and Technology

Primordial societies have been of interest to anthropologists, sociologists, and philosophers as a starting point of understanding the dynamic relationship between humans and technology which is the means of controlling nature to their benefit. Jean Jacques Rousseau, John Locke and Thomas Hobbs had opposing views towards the true quality of the state of nature, what the social contract for living in civilization meant (Laskar, 2013), and were therefore advocating for different political flow of power for constructing social order. Today, people have different opinions towards technology, viewing it as either empowering or controlling, as bringing social progress, or dehumanizing us. The ethical questions related to the digital transformation of society arise from a similar background, with respect to different beliefs regarding the human state of nature. In the following section we will analyse the evolution of society and technology, starting from the hunting society, the agrarian society, and the industrial society, arriving at the present information society, and advancing towards the future knowledge society. With each new major technological advancement society forked to create a hybridization (Dutta, 2014) of old and new social realities.

2.1. Society 1.0 - Hunting Technology

The ancestors of humans were part of nature, until catalysing events made humans able to mentally organize the world around them, collaborate using language within this abstraction, and physically manipulate nature to their benefit (Chomsky, 2004). At this time, humans coexisted with nature and developed means of relating to the world around them through hunting skills, ritual participation, tool making, cave art, myth telling, that mutually sustained the further development of each practice as a part of a holistic life framework (Melton, 1995). The first humans were living in small groups practicing a hunter-gatherer lifestyle, called Society 1.0. Researchers define these primordial societies as being mostly egalitarian with everybody knowing each other, with rules and trust embedded in communal life. Dunbar's number represents the maximum number of people with whom a person is able to keep meaningful personal relationships, and this is reflected into the size of tribal communities which is around 150 people (Goncalves et al., 2011).

2.2. Society 2.0 - Agricultural Technology

With the discovery of agriculture 13000 years ago, people started settling around farming lands, and further developed means of exerting more control over the crops for a secure food provision. As supply

increased around strategic geographical points, the first large settlements developed, where inhabitants exceeded Dunbar's number and trust was no longer achieved by mutual meaningful relationships. A need for a centralised authority pyramid arose, for guaranteeing trust between participants by law making and law enforcement and ensuring the functioning of society. This power structure kept the social order, but great centralized power often leads to abusive control. It is during this period of Society 2.0 that the first city-states appeared, major religions also arose during this time, and cultures extended until empires covered multiple continents. The transition from the mechanical solidarity through collective consciousness, to organic solidarity through interdependence led to the diffusion of power into society, and this might be a cyclic process (Thijssen, 2012). The great thinkers and leaders of antiquity started questioning how to organize society. Preindustrial societies thrived by using technologies of crafting from raw materials, and in this context, writing was invented for record keeping of trading information.

2.3. Society 3.0 - Industrial Technology

The invention of artificial mechanical power transformed production, transport, and the economy. Society 3.0 emerged from harnessing the power of electricity and was based on the industrial economy divided into three sectors, which further increased labour division and the need for bureaucracy. In politics Capitalism and Communism emerged as ways of coordinating the relationship of people and the new automated means of production which had a deep impact on the emerging labourers' social class. The proletariat that left their traditional rural communities and moved into the industrial centres felt disconnected and that led to a state of anomie, as Durkheim observed. This feeling was further increased by their low-quality working conditions, where the limited, passive, and repetitive nature of their task in the big chain of production made them feel alienated, since they were not able to see their identity reflected in the final product, as Karl Marx concluded. The powerful class that controlled the proletariat was the capitalist class, which sought to optimize production for profit and secure a strategic marketplace in an economy dominated by the first two sectors. It is in this environment that Weber expressed his concerns regarding the concept of the "Iron Cage" which described the rational and disenchanting nature of bureaucracy that may keep society prisoner in the run for efficiency and profit as an end-in-itself that replaces a true reflection on values and purposes.

2.4. Society 4.0 - Information Technology

The desire to better control machines has led to the invention and perfection of electronic systems and computers that allow data analysis, information flow control, and process automation. Society 4.0 is based on information technology and harnesses the power flowing from within the digital world. The emerging powerful class in the age of information are the technocrats, the scientific elite, which secure authority through knowledge and discourse (Foucault, 1966). The service economic sector is now the dominating economy of the post-industrial information society. Bureaucracy was replaced by the power of networks, and the nation-state society extended beyond into a global society (Castells, 1996).

The transition to an information globalized society was enabled by the opening of the Internet to the public and the emergence of the World Wide Web, an environment meant to be decentralised and free of regulations. Soon enough, the tech giants of capitalism reshaped the power structure of the Internet into a more centralised form, along opposing initiatives of preserving free access to information and software. The emergence of digital mass-media, where information is repeated unlimitedly, has reshaped our cultural landscape even before the Internet Era. Our world, overloaded with more and more information, has less and less meaning, and all complexity is lost in a superficial reproduction of reality through mass-media (Baudrillard, 1981). In search for meaning people resort to hyperreal experiences in the virtual space and “Disneyization” replaces the mundane with spectacular thematic experiences (Bryman, 2004). The metropolis, as a key element of post-industrial society, is a strategic site of global affairs and new types of operations (Sassen, 1991). In the big city life people are disengaged from public affairs as bonds of local communities have withered (Putnam, 2000) while feelings of belonging are redefined within cyberspace.

The change from solid modernity to liquid modernity means the switch from a production-oriented to a consumer-oriented society (Bauman, 2000). Our identities are now redefined and reasserted through the products that we consume, and besides the classical products, we are consuming the information designed by the marketing industry. The unhealthy lifestyle within the consumerist culture is unsustainable for the environment and leads to psychological and social problems, objectifying and commodifying everything including human emotion (Hochschild, 1983). In the digital age, “McDonalization” of society is having us trapped inside a “Velvet cage” of consumer comfort (Ritzer, 1993), and it seems like people are in denial of the increasing diversity of pollution types and the high carbon emissions

(Giddens, 2009). The after-effects of technology need urgent action and hope comes from successful multilateralism of the global society (Held, 2000).

2.5. Society 5.0 - Smart Technology

The Covid-19 crisis has raised our awareness towards global issues, solutions, and the urgent need for cooperation. As a response to the multi-level crisis, there has been a surge of authority from governments which chose efficiency over democracy, but the trend of power diffusion will eventually return as people learn to be responsible global citizens. Decentralization of power through environmentally and human consciously designed technology will empower communities that were left on the periphery of the world-system by the global spread of capitalism (Wallerstein, 1974). Society 5.0 will be characterized by a conscious form of capitalism based on sustainable growth and a circular economy of recycling. Mass-media of subtle repression through inciting “false-needs” that serve the interests of the elite (Marcuse, 1964), will eventually be replaced by an elevating, soul nurturing, and awareness inciting environment.

The society that we are currently moving towards is designed to solve the issues of our current world. The global cities of the information age are characterised by a fast-paced life and high informational load to which people react with their head rather than their heart (Simmel, 1903). By living and working along technology rich environments, we might as well become like robots (Fromm, 1955), but intelligent technology may actually liberate us from our current condition and help us reclaim our humanity — if we start to use it wisely in order to achieve the transition to Society 5.0. The digitalized working environment, under the right conditions of knowledge about the automation processes has been relieving, empowering, and fulfilling workers through the sense of control over automation (Blauner, 1964). The pandemic has reduced mobility around the globe and increased teleworking, while the demand of the supply chain is taken over by automated process and local production of goods is encouraged, leading to an inclusive development all around the world.

The technologies, for building a super smart society based on knowledge, are already here in their incipient forms. A signature element of the knowledge society is the smart city, where Internet enabled things are connected in order to cooperate and coordinate efficiently, creating an environment of collective intelligence. The Internet of Everything is an emerging concept where communication and connection are achieved between the four specialised sectors which offer services for people, smart things, big data collections, and processes such as that of the supply chain

(Vaya & Hadpawat, 2020). Industry 4.0 is the revolution of cyber physical systems connected through the Internet into self-optimizing intelligent networks of sustainable production. This new era is marked by technologies such as computer simulation, 3D printing, self-flying drones, natural interfaces, mixed reality, big data analysis, artificial intelligence, cloud computing, autonomous robots, and enhanced cybersecurity.

Many of the aforementioned developments will be sustained by blockchain technology, which is a distributed ledger that may be implemented with the aim to decentralize society in areas such as communication, law, production and finance. Blockchain-based technologies will integrate society with the cyber systems through a common human-machine framework, where people and artificial intelligent agents are able to use cryptocurrency in exchange for resources, may securely identify themselves and communicate to cooperate within prior set rules and dynamically designed configurations.

Ubiquitous computing makes use of omnipresent quiet natural interfaces where services follow the user seamlessly across different environments (Augusto et al., 2013). The power of the digital space will permeate the world through sensors, artificial intelligence, and physical smart things. It may as well help us in the transition from a culture of learning characteristic of the information society to a “culture of thinking” (Ritchhart, 2015) that nourishes knowledge and values curiosity, innovation, collaboration, empathy, determination, and analytical thinking. An intelligent environment will help informal and nonformal education to harmonize the socialization of the new generation outside the sterile school space in a natural environment infused with digital intelligence designed to echo true human values.

3. A Macro and Micro Scale Analysis of the Technological Footprint in the Human Society and Soul

We are now experiencing the transition towards Society 5.0 which is enabled by the digital transformation. This shift is driven by core values that cherish our relationship with nature and humanity, as climate change unites nations across the globe to take action in order to pass along to the new generations a hospitable and healthy planet and a thriving society. It seems as if humanity has travelled along a loop, from leaving the state of nature only to return close to nature on a more conscious level. By analysing tribal cultures, Durkheim stated that we feel the sacred when we connect spiritually to society in symbolic forms, through worshiping and ritual that engage the representation of society, as society itself is too complex to

conceptualize. We believe that harnessing the power of the digital sphere that helps us achieve our goals of sustainable development, may on a deeper level enable us to feel connected with humanity across space and time. In this section we make a social analysis of the macro and micro scale potential of digital technology.

3.1. The Digital Transformation towards a Smart Society: Technology of Social Control or Empowerment?

There are three levels of digital integration which build on top of each other, namely digitization, digitalization, and digital transformation. At the basic level, there is digitization which means converting analogue data into a product of digital format. At the mid-level, there is digitalization that is sustained by innovation of computer aided information processing and it exploits digital opportunities. At the top level, the digital transformation emerges as a restructuring at the system-level through digital diffusion which leverages knowledge. We see this evolution in the digital integration, as first replicating the real world inside the digital environment through digitization, then further operating through extended digital capabilities across the two now existent environments within digitalization, and letting the emerging forces of the digital fusion transform the outside world as technologies disappear into the fabric of smart society and the intelligent natural environment.

Technology is said to be value neutral in the sense that it is basically a tool in the hands of a person with agency that gives it meaning and purpose. The fact is that things have affordance (Norman, 1988) cueing people how to use them based on their intrinsic design capabilities. However, once put into use, the evolution of a technology may be different from the cultural values and purposes of its creators, being under the influence of policy and the personal interest of different stakeholders. Technologies such as the Internet and the blockchain are decentralized by the nature of their infrastructure but their superstructure may be organised otherwise. The Internet was created within a visionary framework based on values echoing a strong libertarian ethos. The emergence of blockchain technology in the form of bitcoin was a response towards the 2008 financial crisis and the distrust in the banking system. Further developments of the blockchain to include smart contracts have the aim to make the dependence on institutional middleman obsolete.

The Internet has also been compared to a Panopticon, using Michael Foucault's thesis that knowledge is power (Mukane, 2016). Thus, the Internet may exert a normative power towards individuals through different

means such as covertly instilling fear in the post-Snowden era leading to self-censorship, or through overt tactics of controlling Internet services and the access to information. As a counter reaction to power, there are technologies of dissent and their corresponding subculture of cyberanarchy (Curran & Gibson, 2013). “Promethean” anticapitalists differentiate between the “essence of technology” which is intrinsically positive by enhancing freedom and creativity and the “effects of technology” which under political capitalist power relations are inherently suspect. The animating principles of anarchists are expressed in protecting freedom and agency from forces of institutional mediation, centralization and hierarchy. Wikileaks, the Tor browser, open-source software, were created in order to escape different forms of control, empowering people to anonymously leak classified media, oppose intrusive mass surveillance, and democratize access to technology.

The power of technology that was meant to bring progress, backlashes with new global challenges and human created risks and our biased perception of them (Beck, 1996). The western capitalist world order has stratified nations not only in terms of economics and politics but also by forms of knowledge, in an ethnocentric manner considering non-scientific forms of knowledge as being culturally inferior. A multicultural perspective on human rights creates an “emancipatory, nonrelativistic cosmopolitan ecology of knowledges” that brings a truly global understanding of societies while preserving the diversity of the human noosphere (de Sousa Santos, 2015). In a decentralized global society diversity is sustained and communities are empowered by adapting global values to local perspectives through “glocalization” (Robertson, 1992). Blockchain technology can help collaboration between powerful stakeholders and vulnerable communities by ensuring effectiveness of development aid, provide digital identity, sustain the flow of remittances, manage supply chain, leverage energy distribution, certify property rights and ensure a decentralised network governance (Wigley & Cary, 2017).

However, a distributed network is just a topology, a technological principle, an aim, and it does not automatically lead to an egalitarian, equitable or healthy social, economic, and political landscape (Bodó et al., 2021). Centralization of power over the Internet under authoritarian governments or capitalist forces and the bitcoin blockchain using the environmentally unsustainable proof-of-work consensus are such examples. But decentralization does not need to perfectly distribute power, as systems are not monolithic, and governance requires more complex hybrid approaches. Blockchains can be implemented in different ways, such as a public permissionless blockchain with no central authority, or more

centralized forms of permissioned blockchains such as consortium and private blockchains, with leveraging hybrid types between them. Regulation by an authority may as well prevent concentration of power and preserve a healthy environment, as well as misuse power. The aim is to achieve fairness through transparency and security of transactions, promote democratic access to resources, and preserve human rights of privacy and data ownership. Different societies appropriate the products of modernity differently according to their own views of the global dimensions of ethnoscape, ideoscape, mediascape, technoscape, financescape (Appadurai, 1996), and therefore, we will probably see a very diverse landscape of digital transformation across a multipolar world.

3.2. Living in the Intelligent Environment: Digitalizing Ourselves or Humanizing Technology?

Our identities are decentred, constructed by self-stories (Hall & Du Gay, 1996), and redefining our position in the digitalized world is central to being fulfilled humans. From the dawn of computer science our identity has been permanently challenged by the digital sphere. In the quest to understand our own nature, we compare ourselves to elements from the natural environment or used the analogy of the things we have created. People once saw the mind as computer software running on hardware, having modular algorithmic functions of data processing, storing, retrieval and so on. Artificial intelligence implemented with the help of neural networks might better resemble the natural structure that helps us perceive, think, and act. In the near future, quantum computers may bring another paradigm shift for the human mind and identity. The interaction between humans and the digital sphere continuously reshapes and reconstructs the social reality on many levels.

Over two decades ago, the time spent in face-to-face social interaction was surpassed by the times spent using electronic media, and it is still decreasing as our digital engagement increases (Sigman, 2009). Comparing generations X, Y, Z and Alpha, the attention span has decreased significantly, and so did the time length of each multimedia product consumed by the younger demographical cohorts. From watching whole cinematographic or documentary movies, to short explanatory or amusing clips on YouTube, to even shorter TikTok media, the trend is evident. Social media platforms such as Facebook and Instagram have introduced similar short clip media capabilities, that are volatile and experience-centred, on top of the more classic photo and information-based feed. Reactions that were once only offering a single like button, transformed to include a wider

emotional range, with apps offering people the possibility to design their personal memes-based reactions as symbols of communication. TikTok is the signature application of the Alpha generation, and its name is eloquent of the two second time investment for deciding what content is worth consuming. Regarding application names, as this article is being written the Facebook company announced its rebranding into Meta (i.e., at a higher level, beyond, transcending), envisioning a shift from classical social media to a space of new ways of interaction for the people.

Demographical cohorts' relationship to technology varies from being digital immigrants, and digital natives to being totally engaged in the digital world. The preference in communication also involves different digital communication channels, generation Z using handheld devices and video chatting, generation Y preferring social media and instant messaging, while generation X being more accustomed to e-mails. Ethnographic studies of the digital society understand these new social phenomena through an Interactionist perspective (Housley & Smith, 2017). Researchers speak of technology as enabling new institutional functions in terms of people processing, an emerging "quantified self" by reified metrics, and a change in the interaction order within digital interaction domains. Generation X, Y, and Z have different leadership styles from coordinating and guiding to empowering and inspiring, which may be in part influenced by their signature digital communication environment. As new generations mature and enter the work field, they shape society with their own mind-set. Generation Z and Alpha are already doing this within social media through their influencers and viral content, at a younger age than ever before, which further accelerates social change and a mind-shift on a global level.

The use of technology has a deep impact on our mind. The use of black-and-white imagery on television coincided with the first scientific studies of how people dream or at least recall their dreams. Because of the high incidence of black-and-white dreams reporting, scientists were starting to believe that coloured dreams are a rarity, when actually dreaming in grey tones was just true for a glimpse in human history. Our perception may be influenced by the digital technology in more subtle ways which we take as being the norm. A phenomenological approach of the lifeworld in the digital age can provide an insight towards the intimate connection of humans with technology that challenges the concept of corporeality through the different spatio temporal nature of the virtual (Giannotta, 2019). Bodily experience in the digital world lacks the richness of perception coming from our senses that evolved over time means of connecting with the physical world. Social networks for example harness our basic emotional needs for connection but

offer us a computer mediated interaction that skews our perception of reality, and we are not always prepared to properly handle the effects. Similarly, computer games satisfy basic instincts with unnatural levels of stimulation, where people can immerse for hours in an imaginary world. Within the virtual worlds, people adopt new ways of social interaction that lead to the emergence of a cyberself (Robinson, 2007) by creating the “I/me” couplet of Symbolic Interactionism. Social networks provide means of interaction with large groups of people, or bots acting as people, and the social reality constructed online, by viral sharing of information, fake news or biased reporting, attitude polarization and algorithm filter bubbles, leads to causal feedback loops such as the confirmation bias, and a distorted perception of reality. These effects are sometimes targeted by campaigns customized based on a psychological profile retrieved from BigData analytics, producing a phenomenon that has a major macro-scale impact, as we have recently seen in the political landscape.

The silicone world may leave us feeling spiritually alienated, if our transactions within the digital sphere are dominantly defined by the dopamine pathways of “consuming and being consumed”. There is a need for complexity and elevated states of mind, for having more consideration towards our humanity, which is nurtured by unleashing our creative potential. In human-centric digital technology, engineers use emotionally intelligent design in order to develop systems that recognize and respect human emotion. But there is a double edge to making technology human friendly, as personal assistants based on artificial intelligence that resemble humans too well still make us feel strangely uncomfortable, due to the fact that we have not yet incorporated all aspects of the digital world culturally. But intelligence does not need to take our physical shape, and may be diffused throughout the natural environment, which gives us a more soothing feeling. Three decades ago, Mark Wisner said that the most profound technologies are those that disappear, weaving themselves into the fabric of everyday life until they are indistinguishable from it. Digital technology will eventually be shaped to be human friendly and be culturally assimilated by society within the process of redefining our identity in the dialectic relationship with the digital world. By deciphering the code of human digital interaction, we can reclaim our agency in a conscious way, with awareness towards the profound impact of our actions, expanded by the power of technology.

4. Sociology and Anthropology of the Digital Sphere as Sustainability Knowledge Resources of Society 5.0

Our research into the history of social transformations has highlighted the strong connection between social systems and technologies of that time. Sociology first started as an academic discipline during the shift towards the industrial society and saw the power of technology at work in shaping social structure and the identity, interaction, and worldview of people. Sociologists developed scientific means of positivist analysis and extended their inquiry through acknowledging the interpretative nature of human observation to keep track of the multi-level changes in the post-industrial society and beyond, analysing how technology both controlled and empowered society.

Ethnography and phenomenology dive deeper into the qualitative nature of collective and individual human experience respectively. Digital Anthropology tries to capture the true nature of the digital transformation, as the change is encompassing our intimate inner world. Reactions towards the digital diffusion of technology in our lives vary across a wide spectrum, from viewing technology as enhancing humans, to dehumanizing us. Digital Anthropology teaches us another way of looking at technology, which is that - it is us that might first dehumanize technology, vice versa being just an effect. As long as we don't reify technology as something alien to our own nature and see it as an extension of our human values, desires and intelligence, technology will be an artifact that will express our humanity and connect us to humanity. Instilling this thought and feeling on a global scale is key to enculturate the value of technology while preserving the richness of human cultures.

Global and local policies express the entwining of the macro and micro dimension of the social reality for creating, through the digital transformation, a sustainable and conscious society. The United Nations Sustainable Development Goals express the importance of digital technology for intelligent coordinated action between diverse stakeholders, and the importance of digital technology for promoting human welfare for each global citizen. The Global Risk Horizon reports of the World Economic Forum are addressing present issues related to the rapid digital migration and the increasing digital inequalities, on the multilevel perspectives of their studies. The knowledge society that we are transitioning towards, will hopefully resolve some of the previous shortcomings, by successfully integrating the digital sphere into our cultural and social framework, creating cultural sustainability, alongside political, economic, and ecological sustainability. We are at the dawn

of Society 5.0, and we hope we will design for a healthy relationship among humans and between us and artificial intelligence, creating a trust culture sustained through technology. Using digital technology as a human artifact reflecting our true goals, aspirations, and ideals we may participate consciously in the evolution of humanity.

The implications of our findings are related to the emerging conscious culture of the knowledge society, that strives to instil responsibility and empower humans, through knowledge mediated by the digital sphere, so that their actions are having a valuable impact towards all humanity and beyond. One major step is creating a fruitful relationship through technology and with technology, as policies around the word bring together the concept of digitalization and sustainability. There are ongoing debates about the place of technology in the environment, society, and personal life. New circumstances that arose in the post-pandemic world impose sensible ethical answers. Our vision is that technology shall be culturally assimilated as an extension of human action, and it is our duty to thoughtfully create this spiritual dimension of technology. By deeply humanizing our relationship with technology, we may empower society from the transpersonal to the personal higher level. We shall envision beyond each digital artifact the real human creator, and the human receivers of our actions, through opening our minds and hearts to the complexity of life.

5. Conclusion

This paper tackles the dialectic relationship of humans and technology, as technology emerges from a core philosophy and cultural context, and in turn reshapes society. We analysed challenges appearing on the macro scale of structure and systems, and the micro scale of human identity and interaction. International organizations focus on the potential and importance of the digital sphere in creating social disruptions and solving complex social issues respectively. The history of humanity is filled with evidence of technologies that reflect an unbalanced side of humanity such as only the rational mind, the desire for power, or an ethnocentric world understanding. Technology can bring us back to origins, closer to nature, closer to humanity, if we understand ourselves as its creator and instil technology with our highest values. Society 5.0 emerges on top of the digital transformation, and this time we hope that humans may truly see their identity reflected in the intelligent environment that they will have created and feel connected to all humanity across space and time and beyond.

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