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Professional Culture of the Specialist of the Future

**THE BOUNDARIES OF REALITY:
WHERE THE LINE IS TO BE HELD?**

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Abstract

The article analyzes the concept of 'reality' lying at the crossroads between the two worlds: the digital world and the world of individual consciousness. Being the product of the modern collective intelligence, the information reality embraces all achievements, inventions that are nested in the information field and exist there in desired or potential materialization. The increasing influence of digital technologies and their implantation into the 'fabric of the world' bring up questions for researchers whether it is possible to predict the consequences of their invasion. Under these conditions, the moral 'knowledge creation' basics and their application in the new information and communication environment enhance their importance manifold. In that context, the narrow technical determinism gives no reliable support to solve problems that arise in that regard. The article outlines a range of issues specific to the study of new forms and structures of 'imaginary worlds'. It harnesses the experience of consciousness descriptive analysis as a phenomenological way of describing reality according to Edmund Husserl's philosophy. The article contrasts virtual reality as a specific consciousness world and as a continuously produced basis for all consciousness contents and the digital world as its 'collective product'. The reality constituted by consciousness sets up a special pitch of moral issues: the responsibility of each 'carrier of consciousness' cannot be underestimated due to the content of his/her inner world. The moral basics of consciousness influence the type of world it generates.

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1. Introduction

Through the development of modern technologies, the world is changing significantly and transforming. This transformation results in the expansion of a new digital reality, being not limited by a computer or mobile phone case. It is the provocative reality that becomes a part of everyday life, i.e. professional teaching and changing profile of communication with the world. The normal tide of life shifts as well: increased speed of communication, in particular, professional one; new state of information preparedness; new vectors of interest; the sequence of tasks-to-do where digital reality is becoming the main form of professional and leisure activities. Today, any occupation is a wind rose intersecting multiple worlds. Hence, it is needed to correlate their order, hierarchy and influence.

2. Problem Statement

One can hardly clearly define the boundaries of the new reality. Much has been said about the anthropological capabilities of combining the two realities: virtual (digital) one and physical (world space) one. As long as the human adheres to coordinates defined by nature, all terrors stemming from scary quasi-fictional 'new reality' projects can be neglected. Threats come from so-called transhumanism or 'new ideology' (Julian Huxley), i.e. the strategy of the severe transformation of human nature.

The fundamentals of this new ideology are determined by the following idea: at the current stage of technology development, a human can no longer meet the pace of technological growth and control cybersystems technological behemoth unless he/she radically intervenes into his/her own organic structure. This refers to designing of a new human physical model reproduced as an improved version (for example, prosthetics and replacement of organs as they tire). It concerns the ultimate (up to infinity) expansion of the human timeframe (projects Russia-2045, FM-2030 and h+Magazine). These ideas go hand in hand with the evolution of cryonics and convergent technologies (NBIC-technology) within the framework of modern technological processes management. On the one hand, they reflect the positive intents to improve human capabilities and human nature in general; on the other, they propel into violation of all anthropological coordinates of human existence. A human can turn into an eternal and ineradicable source of both good and evil, so to speak, an irremovable particularity and detail of the world. This applies to every person, regardless of his/her moral (or immoral) stance, as a common program and vector of his/her actions. It is not only a question of altering the anthropological constants of the human body. It deals with eternal reproduction of a creature that is not yet perfect in the moral context and acts as the source of its mismatched desires, while possessing ever greater opportunities to interfere into the world goings and causing its endless changes. However, we should admit it is an old tale stretching back to Biblical times about the imperfect mind combined with the 'long-term will' that start to manage the world development scenario with significant gap in abilities to assess the consequences of such an invasion. Transhumanists wrestle with the question whether human intelligence has digital or analog nature in order to implant it in all sorts of media that will survive in the last cosmic disasters. Science and quasi-science fiction is setting relevant priorities so far (Dalekoye budushcheye Vselenny: Eskhatologiya v kosmicheskoy perspective, 2012). This applies to organ transplantation, cloning, surrogacy maternity, euthanasia, in vitro fertilization, intensive care, genetics and eugenics research,

contraception and abortion, attitude towards animals and nature during medical experiments and many other issues that go beyond medical professional community, becoming the subject of ‘practical philosophy’ in the context specified by Socrates and Aristotle, i.e. ethics or moral philosophy.

3. Research Questions

Meanwhile, the list of trouble spots due to application of such technologies and risks associated with their usage might be quite impressive. That is how digital technologies influence brain activity (in his famous work “Digitale Demenz: Wie wir uns und unsere Kinder um den Verstand bringen”, Manfred Spitzer talks about the new syndrome of ‘digital dementia’ (Spitzer, 2014, p. 15). These are the problem of information transparency in business transactions; vulnerability of political and business elites subsequent to leaks of data; crisis communications strategies; reputational crisis threats; overlapping interests and conflicts of business groups (Glazkova, 2017, p. 194) creation of a current agenda for thinking about scientific-technical progress, shaping of public opinion, and participation in constructing national identity (Bylieva, Lobatyuk, & Nikiforova, 2017) fake information and its impact on real policy; ‘dirty’ informational space and ‘dirty’ information production technologies that form public opinion, appeal to such ‘facts’ in public speeches; moral and legal regulators of information sanity; information responsibility and irresponsibility; interaction of different (opposing and overlapping) information and communication platforms and channels; information validity and the accountability procedure for false information going around social media; information disclosure technologies. Overall, this range of problems is epistemologically the key described by cybernetician Warren McCulloch as a concept of heterarchy, i.e. an organizational form characterized by “multiple competing regimes of evaluation” (Nikiforova, 2017, p. 301).

These problems predominantly do not yet suppose a legal resolution for arising conflicts. Nevertheless, digital reality functions, gets more complex, structures itself and has its own ontological basis. In his famous three-volume edition “The Information Age: Economy, Society and Culture”, Manuel Castells, a recognized expert in the study of social and cultural consequences of society informatization, argues that the new communication system is distinguished by the principle of total involvement in an integrated set of connections: “all kinds of messages in a new type of society work in binary mode: presence/absence in the multimedia communication system. Only the presence in this integrated system permits communicability and socialization of the message [...] The price to pay for inclusion in the system is to adapt to its logic, to its language, to its points of entry, to its encoding and decoding” (Castells, 2000, p. 352-353). The new digital reality seems to displace the reality as such: “the Internet space can be viewed as a new form of existence where physical laws do not work, and in connection with this, social ones are often questioned” (Bylieva, Lobatyuk, Nikiforova, & Petrova, 2017, p. 226).

The world is rapidly changing, but we can no longer hide behind the clarification: the world is changing *around* us, leaving us untouched. Real accomplishments and opportunities of contemporary science, in particular, medicine, seriously question the limits of its intervention in the human nature (Shlyakhto, 2016). Anatoly Stoletov believes that the problems are spilling over the whole society: “The

further spread and development of science and technology has resulted in a number of major social transformations, including the anti-standard revolution in the field of ethical thought, followed by the emergence of a new non-classical rationality, which changed the ratio of science and ethics” (Stoletov, 2017, p. 138). In keeping with Herbert Marcuse’s thoughts, we can define the modern civilization as a comfortable unfreedom in the contest of advancing technical progress (Marcuse, 2003, p. 264).

4. Purpose of the Study

In this regard, the most important task is, firstly, to clarify the ontological status of the ‘new digital reality’ and, secondly, to project this issue on the practical moral philosophy. The initial question about the relation of the two reality systems, the digital one and the one that we usually call ‘the world’, ‘reality’ and ‘nature’, actually refers to the initial doubt whether all things created based on digital technologies are ‘anthropometric’. “Technology is initially a system of formulations, the intent of which is to produce human characteristics in a human as his/her ‘second nature’ in place of the ‘first’ one, consistently denied by the anthropogenesis development” (Gryakalov, 2015, p 312). In this regard, let us ask a more fundamental question: what is reality?

5. Research Methods

Range of problems associated with digital technologies are as extensive and diverse, as methods of their research. They cover *description* of the technical means maintaining the existence of digital worlds, as well as their description, *analysis* of human capabilities to arrange and manage these worlds, sciences interaction at the crossroads between technology and humanitaristics, forms of human existence in the post-human dimension (problems of replication, new sex communication, genetic changes in the new technological environment, emergence of androids, etc.). The interaction system among the electronic culture (e-culture) areas is described by the *Digital Humanities*. ‘Digital Humanitaristics’ is another hybrid term linking the good old classical science, the heritage of the Italian Renaissance, and digital technology. Despite a profound interest demonstrated by European and Russian universities, this topic remains the lot of some advanced professionals who managed to adapt IT technologies to their narrow professional profile. Here is what Manfred Thaller, a Digital Humanities leading figure, writes: “In 1962 at the castle Wartenstein in Austria a group of scholars met to discuss The Use of Computers in Anthropology, presumably the first attempt to clarify a methodological position for the interdisciplinary world between the Humanities and Computer Science. Fifty years later, there is consensus that there is a shadowy subject between these disciplinary worlds, to describe it precisely seems only marginally easier than in 1962; or maybe harder, as the number of possibilities has exploded” (Thaller, 2012, p.7). Berry and Fagerjord (2017) lean towards the same direction by introducing the ‘high-level map’ concept; in computer area, they utilize Jaakko Hintikka’s concept of ‘deep information’.

Analysis of digital technologies impact and use in everyday life is another research area. S. McGrath introduces the term ‘bedroom culture’ (McGrath, 2012) as an opportunity to use the latest digital technologies ‘within the home’. On the one hand, it expands the individual world, connecting an Internet user with any counterparty no matter how remote he/she may be; on the other, it causes alienation

among the immediate circle members, for example, in the family: the presence of new media technologies negatively affects communications and acts as a factor of social isolation, individualization and loss of interest in the outside living world.

The name of a first study of digital technologies influence on the daily life (“Being Digital” by Nicholas Negroponte) is still translated in a word-by-word and purely technical manner (Negroponte, 1996). No more, no less, Negroponte turned out to be the inventor of digital economy.

In the light of ever greater expansion of technologies into the everyday practice, the importance of ‘knowledge creation’ moral background during technical transformations increases manifold. The moral correlation of technological progress is significantly lagging behind: at first, a simple genome editing technology was elaborated, and only later its inventor required to ban it from usage due to all uncertain consequences. In this context, humanities scholars are the ‘weakest link’ in the knowledge creation process. They are in the role of the Old Testament prophets, crying about the future, while the rest are effectively making it closer. “Those who can do; those who can’t teach.” However, it cannot be claimed that epistemology, or the philosophy of scientific knowledge, is like terra incognita. As long as issues arise since the middle of the last century, this area is shined by ‘Diogenes lamp’. In this context, we can recall the works by Pierre Teilhard de Chardin, José Ortega & Gasset, Karl Jaspers, Henryk Skolimowski, Martin Heidegger, Jacques Ellul, Edmund Husserl, Michel Foucault, etc. that analyzed the consequences of technological invasion into the ‘fabric of the world’. None of these authors lived to witness absolute expansion of digital technologies in knowledge creation.

6. Findings

We feel this consistent and carefully developed ‘objectivity’ concept elaborated by Husserl to be underestimated in the modern context of expanding imaginary reality. Reality is still divided in two opposed parts: objective one and imaginary or virtual one. Žižek (1998) is one of the few who managed to join Husserl’s phenomenological projects and set new benchmarks in understanding of its key postulates. Žižek’s views are out of the ordinary. According to the phenomenological attitude, Žižek (1998) considers all phenomena based on consciousness productivity and believes that any framework structure serves as presentation of the world of consciousness (and of the virtual world, in particular). The frame is the ‘basic disposition of fantasmic space from the prehistoric Lascaux cave drawings to computer-generated Virtual Reality (VR)’. As Žižek (1998) believes, the computer interface is ‘the final materialization of this framework structure’. The generation of virtual worlds is the usual consequence of human consciousness working. In this sense, the ideal and virtual are phenomena of the same magnitude. They characterize not some special side of the homo sapiens’ activities, but the elemental imagination operations carried out in everyday life: any word ‘is taken’ from virtual sources, while the dictionary is a compendium of ideal entities, potentially suitable for the first level of ‘grounding’. The second level of ‘virtuality realization’ is its any material representation (for example, pictures on the computer screen). Žižek (1998, p. 14) introduces a subtle distinction between the methods of virtuality presentation, imitation and simulation: “VR does not imitate reality, rather simulates it using similarities. In other words, an imitation imitates a pre-existing real model, while a simulation generates similarity of non-

existent reality, i.e. simulates something that does not exist". Žižek believes that imitation and simulation are forms of reality expansion. But in any case, the pre-existing 'organic' reality, or the so-called 'objective world', manifests itself in the only possible way: it is produced by consciousness. To this extent, subjects of consciousness obviously outnumber those of 'external reality'. In order to verify this, it is enough to ask the question: can we assume that there exists at least one subject that cannot be imagined in the mind? And, returning to Žižek's division of virtual reality into imitators and simulacra, we find this difference: there are greater in multitude consisting of simulacra.

When describing the world as 'reality', we generally, consciously or not, adhere to one of the following points:

1) We acknowledge the existence of external objects and consider consciousness as their reflection

2) We acknowledge the independent existence of two areas: world and consciousness

3) We recognize consciousness as the source of reality, i.e. external objects, their totality, as well as what we mark with the concept 'reality' are understood as consciousness derivatives.

The third case directly relates to the phenomenological philosophical setting. In the 20th century, the German philosopher Edmund Husserl (1859-1938) was an outstanding representative of phenomenological doctrine. It is impossible to say Husserl's phenomenology was put behind. On the contrary, phenomenological studies take a stronger position in modern philosophy. This refers to generation of cosmological concepts about the universe. The universe is one, while there are many ways to interpret it, even if we limit ourselves to physics alone. At least three levels – micro, macro and mega worlds – are described based on different fundamentals. Is it generally possible to use the concept of 'world' or 'reality' in the singular? 'Multiple description of things existent' is the issue that Husserl challenged himself with in his theory of phenomenological reductions. The general idea of this theory is that access to phenomenologically objective information is always blocked by invented definitions, estimates, qualities and properties described in different theories, concepts and sciences. Hence derives an important rule to understand the meaning of reality: it is vidious to compare compare different ways of understanding reality, rater presentations and real things. Husserl's reflections lead to the reduction of what is called reality in the usual sense of this word to descriptive models, the areas of which are determined by the structures of consciousness. Descriptions of 'reality' may be justified or naive, clear or vague, complete or fragmentary, scientific or pseudo-scientific, mathematical or metaphorical, true or false. They may reach conceptual completeness, remain at the level of commonplace ideas or misrepresented as objective scientific facts that become obsolete and useless as early as the next edition of a textbook is published. All these description forms claim to be objective, to reflect the 'real', 'actual state of things', 'the object itself' or 'the object-as-it-is-in-reality'. Phenomenology criticizes varied objectivist approaches and defines the actual status of real objects as being generated by emanating from consciousness of their content. For Husserl, describing reality as a phenomenon means the following: to comprehend all cultural and historical interpretations as a form of subject meanings constitution (establishment, formation or generation), rather than reflection structures. Objectivity is not a given basis, which is independent from us, but an opportunity to comprehend this world. It is a meaning we attribute

to our knowledge. Therefore, we should ascribe a gnoseological meaning, rather than an ontological status, to this concept.

Many times, Husserl himself started his phenomenological work with a consistent and very careful analysis of objectivist quasirealism.

So, from the phenomenological perspective, consciousness itself is the basis for reality and all concepts about it. In this strictly defined sense, consciousness is the source of 'reality', and outside of it there can be no knowledge about the outer world. Phenomenology – that is obvious – starts with the upheaval of ordinary consciousness and even common sense basics. But in fact, if we accept the original phenomenological attitude, we will not have to look for ways to break through to the 'objectivity-on-its-own'. That is the 'phenomenological conversion' of external objects into phenomena. Only phenomena can be subject to scientific analysis in its strict sense. Science does not lie on the other side of consciousness; it is consciousness as such, namely, 'a systemized unity of concepts'.

7. Conclusion

In the context of the phenomenological concept of reality, we will try to define the status of 'information reality' included in it. Despite all its irrepressible and global significance in the modern world, information world does not yet change the human nature to the defining extent individual consciousness has for it. Being the product of the modern collective mind, the information reality embraces all achievements, inventions that are nested in the information field and exist there in desired or potential materialization. And this incomparable volume of collective knowledge and capabilities contained in it is still opposed by individual human consciousness, which freely defines the concept boundaries of the world to the best of its abilities, intellectual capabilities and, most importantly, its moral concepts.

Each consciousness carrier has a personal responsibility whether his/her own world that contributes to the global reality depending on his/her capabilities will be light or dim, dirty or enlightened, balanced or miserable. Since we are not isolated, openly interact and exchange information, 'our worlds' should be considered as contributions to this reality. The fundamentally creative nature of this contribution should not be underestimated. The world of a good person is such not because the world is good itself, but because the internal sources of good are not blocked. The world of an evil person is such as he/she has no basis for doing good. On that ground and in keeping with absolute freedom of self-determination, a person is responsible for everything his/her world is filled with which is defined for him/her as 'reality'. This is an ethical consequence of the consciousness model designed by Husserl: consciousness generates reality and determines the meanings of reality in every single case. The world of collective human memory and knowledge, including 'digital universe', is only a potential source for reality materialization. As long as there are individual filters that allow a free person to make his/her moral choice, the balance between reality, 'digital' and 'existential' ones, will be maintained.

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