Protecting Mental Health in the Epoch of Virtualization

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Abstract
Humanity creates virtual realities with their own space-time which are frightening and demand their own rules. The purpose is describing an instrument for the cyber sphere normative regulation to protect mental health. Three key concepts are developed: psyche as the independent physical force that creatively regulates information-energy exchange in its movement between levels of virtualization driven by meanings; informational technology as a source of the special danger; custom as a source for technology immunity forming. Collective intelligence should be used for creating a global crowd platform to self-regulate the fast-developing and unpredictable virtual space. Concept description is the first step to form sensitive collective perception. The next steps are project plan and team development, a pilot project realization. The platform's advantages are the combination of Wiki projects enthusiasm with laconism of Moses' Ten Commandments; creating fast-reacted sources of law for private relations named custom in international and local jurisdictions; activation the power of self-enforcing agreement as everybody is co-creator, involved in discussion and decision-making in epic scale. The programming means are wiki software, blockchain, artificial neural networks. Society receives an efficient supranational instrument for fast-reacted self-regulation. This integrated approach is necessary for a new stage of Anthropocene when we all create the unitary social network of quite different nature.

Keywords: virtual reality; digitization; collective activity; knowledge management; self-regulation;

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1. Introduction

The huge amount of digital phenomenon stresses the permanently virtualizing character of our way of being: Internet, messengers, social networks, blockchain, cryptocurrency, virtual and added realities, drones, robots, telemedicine and on-line learning...

It could be frightening; however, this is not the very first experience of virtualization as each transition to the next level of abstraction may by estimated as the virtualizing act (including development of natural languages, writing systems invention, book-printing and computation) (Nosov, 2000; Zhurba, 2016). The future steps on this way are hardly predicted, but all of them are united by the psyche, which may be defined as the independent physical force that creatively regulates the information-energy exchange in its movement between different levels of virtualization driven by meanings.

Humanity is creating new realities with their own space-time in the digital sphere now. In language of physics (Wilczek, 2018) the new metric field is expanding, which gives rigidity to space-time and causes gravity on our individual mental maps and in this "brave new world" as a whole. Therefore, virtualization gifts the both new threats and new opportunities including ideas of singularity and immortality connected with the cyber sphere. However, these ideas accentuate the search for an "answer to the ultimate question

life the universe and everything" (Douglas, 2016).

Any reality demands its own rules to exist. These rules or system of limitations (often called "laws" in physics and in social sciences) are the necessary precondition not for development and existence of liberty, responsibility, beauty, creativity only, but, first at all, they are the ground for state of well-being in physical, psychological and social aspects, in other words for the health. This is correct for any carrier of psyche including a separate person, the certain group or the global community, who acts in the corresponding virtual space-time.

The lack of verbalized socially agreed rules for the digital reality provokes the feel of uncertainty, permissiveness and an extremal behavior. It causes the psychic instability (Holmes, 2016), deviation in different forms and very new forms of psychic, psychosocial and social disorders: from obsessive behavior, anxiety and neuroses related with gadget dependency or game and social network addiction until cybercrimes like incitement to suicide.

Thus, the purpose of the study is describing a possible theoretical approach and, correspondingly, an effective instrument for the cyber sphere normative regulation as a precondition for the mental well-being simultaneously for individuals and the communities of different scales: from families and teams to the states and the humanity as the whole.

2. Related Works

Both (theoretical and practical) described approaches are cross-disciplinary, thus, they integrate and develop ideas and achievements from many different fields of science. They include psychology (Frankl, 2018; Swingle, 2016; Spitzer, 2012; Nosov, 2000; Holmes, 2016; Sloman, 2018), law (Harvey, 2017; Polanski, 2007), physics (Deutsch, 2015; Wheeler, 1990; Wilczek, 2018; Gisin and Aspect, 2016), information theory (Dretske, 1983; Hidalgo, 2016; Gleiser, 2017), game theory (McGonigal, 2016), and, of course, everyday practice.

The integrated approach (and feeling of the gratitude) is very natural for the new stage of the Anthropocene when all of us are creating the unitary social network with radically new characteristics (Isaacson, 2017; Ramo, 2018; Sloman and Fernbach, 2018; Harari, 2018; Zhurba *et al.*, 2016).

3. Methodology

The methodology of research is based on three key concepts: psyche as the independent physical force that creatively regulates information-energy exchange in its movement between levels of virtualization driven by meanings; informational technology as a source of the special danger; custom as a source for technology immunity forming.

First at all, the key feature of psyche is integrity creating on any level: from the quantum mechanics when the act of observing collapses the wave into particle (as it was proved in numerous double-slit experiments), through the individual level where the psyche keeps bodily and personality integrity despites of permanent replacement of our cell (every seven year all human cells are replaced totally), reactions and outlook, and up to collective form

of consciousness that creates global subjects sustainable in space and time like nations or religions (in their social dimension). The mentioned integrity is formed in creative way on the crossing of huge number of energy-information exchange flows.

Secondly, during last tens of years humanity invented a wide range of devices which speed up the information exchange. All of them start forming the literally new form, namely – technoform in addition to the used bioform, psychoform or socioform on the collective and individual levels. People may easily and situationally include in their map of the body any foreign objects (Ramachandran, 2011). But in view of number and duration of the current inclusion of these devices and related phenomena (cell phones, smart watches, fitness trackers, special medicine devices like cardio stimulators, social networks and messengers' communication etc.) into our map of body and map of self, all of them make changes in our brains and create new integral technoform. Thus, biotechnological singularity is closer than it looks.

Of course, the result of influence of this technoform (and all informational technology generally) are a source of the special danger, as the humanity is not able to control totally any aspects of their processing, especially emergent properties arising from interaction between devices like Internet of things, deep learning or artificial intelligence. At the same time, the consequences of the influence of devices and social networks on the human psyche are not researched completely.

At last (but, traditionally, not least), the most efficient way to decrease the dangerous of the process of technoform evolution and to develop the safety ways of interaction with any type on new informational phenomena is usage of the potential of custom. It is a tool efficiency of which was proven by thousands years of human legislation development and is caused by three reasons: involving of each member of society in norm forming and maintaining; flexibility in response to the very changeable and predictable environment; usage of the colossal potential of the collective consciousness where the law of big data start work. All of this constitutes a reliable foundation for the forming of new type of immunity – technology immunity as a basis for the mental health.

4. Results and Discussion

> The world is changed.
> I feel it in the water.
> I feel it in the earth.
> I smell it in the air…
> – The Lord of the Rings (movies), 2001

Many visionaries, scientist and philosophers analyse the tendency of the modern drastic technology development and call to think through our nearest future. This call includes many aspects: from a global mission for the human race, to everyday small steps in development or degeneracy for each of us. (Of course, any development means two steps forward and one step back, but first should prevail.)

Thus, Harari (Harari, 2018) speculates on techno-humanism (cyborgs foremost) and dataism (data foremost) as the new possible global religions, as any living creature may be considered as a different method of processing data. All this data are connecting into the common network now.

Harari emphasizes, “the Internet is a free and lawless zone that erodes state sovereignty, ignores borders, abolishes privacy and poses perhaps the most formidable global security risk”. However, “our current democratic structures just cannot collect and process the relevant data fast enough, … Hence traditional democratic politics loses control of events and fails to provide us with meaningful visions for the future.” (Harari, 2018).

In view of this, society needs a supranational instrument for fast-reacted self-regulation, especially in cyber space, including rules for big data processing, virtual and alternate realities, interaction with artificial intellect or robots.

However, the most of governmental and private official institutions are too slow acting, often unduly politically and economically motivated, while their legal acts are overcomplicated for perception. Three instances could be mentioned: General Data Protection Regulation (EU GDPR), Facebook policies, and Decision of European Court of Human Right in Case of Big Brother Watch and others vs. the United Kingdom of 13 September 2018 (the electronic surveillance programmes revealed by Edward Snowden was found a violation of Article 8 of the European Convention on Human Rights).

1) Poles and corridor of life

The first step in any norm development is the differentiating as the simplest case of energy and information processing demands two poles. It could be 0 and 1, good and evil, energy and information, etc. Life is possible within a comparably narrow corridor of poles – in gravity, space-time, temperature, and infinite quantity of others. The human psyche reflects this polarity and is highly effective in operating with them. The individual and social development pass through different poles: progress and traditionalism (conservatism), separation (independence) and globalization, etc. Consequently, the precondition for the norm development is observing real-life practice and uncovering the strongest poles in new-born reality, namely the system of coordinate (for example, data privacy – free information).

However, polarization creates tension and may cause diseases on the individual and social levels. At the same time, this tension stimulates creativity and movement to the next level of virtualization, which may help to solve the conflicts of the previous level and heal by retrieving the wholeness. Then the new pair of polarities starts development on this new level of virtualization and process repeats with new degree of complexity.

Thus, the key for development of any level of virtualization is forming the corridor of life (so named Goldilocks zone) with optimal strength of each poles, where poles should not flow together as any transformation needs the space, and, at the same time, poles should be close enough to keep stability of the system. Stability means the rules that are comprehensible and manageable for average people.

This condition creates the possibility of treatment, namely overcoming the polarities of the current level by forming the wider field of consciousness and responsible and virtuosic activity both on the individual and social levels.

2) Energy-Information Exchange

We start with two basic categories used for analysing any phenomena of this world – energy and information, although physicists very often support the only one pole: energy (for instance, Einstein) or information (Wheeler, Hidalgo, Harari). However, energy is permanently converting into information (the second law of thermodynamics is about this transformation) and vice versa. Notwithstanding we are in beginning of understanding the common principles and the general direction of this transformation, the modern state of physics has already allow describing energy-information transformation by the scientific

language without any mysticism, for instance, by connecting famous Einstein's E = mc2 and approach developed by Seth Lloyd. He explores the physical limits of computation as determined by the speed of light c, the quantum scale ¯h and the gravitational constant G (Lloyd, 2014). Unfortunately, a comprehensive theory on interdependence of energy and information field is not developed currently, especially for human sciences, but is speculated widely in pseudoscientific doctrines.

Thus, any phenomenon of this world (including living creatures, social structures, any virtual reality, and humanity generally) is a node in energy-information exchange processes, and not the algorithm of data processing only.

3) Levels of Virtualization

We may assume that in the moment of Big Bang (or any other singularity in our Universe beginning) energy prevailed over information, and that was the starting point for information development through energy transformation. Progressively volume of information accumulated, and the energy-information exchange encourages the material world to create relatively close systems with own space-time scales. Thus, some level of virtualization appears with its own units (or quants): the very first light, atoms, stars, galaxies etc.

However, transformation is continuing, and overflow of information demands new systems with the higher complexity of organization and quite new units, features and laws, irreducible to the simple sum of the elements of the previous level. It causes emergence or synergy (as its processual aspect). For example, the temperature in house is something more than sum of molecular movement for us, when we pay a bill for space heating.

The next level of complexity is relatively weak dependent on the laws and qualities of the previous level. However, over time, relations between levels of virtualization turn well-structured with precisely defined laws of interactions. Thus, chemicals processes have an impact on a plant as a biological unity and vice versa in certain ways.

Consequently, different levels of complexity of the energy-information exchange encourages the material world to create structures (to quantify) in different space-time scales with different degrees of complexity and freedom. Maturated level of virtualization becomes sustainable and relatively independent because of balance between of the tendencies to quantify and to polarizing (expansion). This is the consequence of fibration in the language of mathematics.

Later a cycle repeats and it is an additional meaning for the beginning of infinity. Thus, virtualization means an essence of the previous level of development that receives its salutatory evolution on the next level of complexity (in accordance with the second law of dialectic).

4) Virtualization: The Word with a Long History

The semantics roots of "virtualization" is very deep. As known, Damien Broderick and Jaron Lanier coined the related term "virtual reality" in 1980s. However, "virtual" was wide-used and deep-analysed term within last two thousand years: from Plato and Thomas Aquinas to Henry Bergson.

In according to the dictionary "virtualization" derives from "virtualize", one of the meaning is "create a virtual version of". "Virtual" means "almost or nearly as described, but not completely or according to strict definition; not physically existing as such but made by software to appear to do so; denoting particles or interactions with extremely short lifetimes and (owing to the uncertainty principle) indefinitely great energies, postulated as intermediates in some processes". The evolution of meaning starts from "influencing by

physical virtues or capabilities, effective with respect to inherent natural qualities" in late 14th century through "being something in essence or effect, though not actually or in fact" in mid-15th century to computer sense of "not physically existing but made to appear by software" in 1959 (Online Etymology Dictionary, 2018).

"Virtual" derives from Latin "virtue" (strength and power (by other word, energy), courage, worth, character, excellence, army, host, and mighty works" (Online Latin Dictionary, 2018). By the word, "the seven cardinal virtues (early 14th century) were divided into the natural (justice, prudence, temperance, fortitude) and the theological (hope, faith, charity)" (Online Etymology Dictionary, 2018). Yes, "virtuoso" is cognate either.

This word is also related with Sanskrit semantic group वृत ([vrta]: "chosen, hidden, loved, wealth, treasure"), वृत्त ([vrtta]: "metre, log, report; happened, existing, continued, finished; behavior, adventure, final rhythm, transformation, means of life"), वृत्ति ([vrtti]: "job, state, being, rule, addiction"), वीर्ते ([virte]: "break into pieces"), वीर्य ([virya]: "energy"), and even अवतार ([avatar]: "incarnation, release, descent, translation, opportunity, going down into, appearance of any deity upon earth" (Spokesanscrit.org Dictionary, 2018).

5) Data, Information, Knowledge

New level of virtualization requires a part of energy transformation into some kind of information, namely energy receives a sustainable form in space-time and the word "information" reflects it semantically: in-form-ation.

However, there are three terms and corresponding mental concepts: data, information and knowledge, which denote something similar and often missed in use. Data is defined as "a fact given or granted" from 1640s, "numerical facts collected for future reference" from 1897, "transmittable and storable information by which computer operations are performed" from 1946 (Online Etymology Dictionary, 2018) and "a set of values of qualitative or quantitative variables" (Wikipedia). Thus, data is the aggregate of elements' values of the previous level of virtualization and needs the active agent to move into the next level.

Meaning of "information" evolved from Latin *informare* "to train, instruct, educate; shape, give form to", *informationem* "outline, concept, idea" to "act of informing, communication of news" in 14th century (Online Etymology Dictionary, 2018). Later there were coined collocations information technology (1958), information revolution (1966), information overload (1967). Today information means "the communication or reception of knowledge or intelligence" (Merriam-Webster Dictionary, 2018) and "any entity or form that provides the answer to a question of some kind or resolves uncertainty" (Wikipedia).

Based on this, information is connecting element between different levels of virtualization that reflects the unexpected (or uncertain) aspects of certain level of virtualization from perspective of an agent acting on another level.

At last, knowledge derives from Old English *cnawan* "perceive a thing to be identical with another," also "be able to distinguish" generally; "perceive or understand as a fact or truth" (opposed to believe); "know how (to do something)" and perhaps from Scandinavian -lock "action, process" (Online Etymology Dictionary, 2018). It refers us to the role of poles and processual aspect of human consciousness development discussed above.

The manifestation of mass consciousness named Wikipedia defines "knowledge" as "a familiarity, awareness, or understanding of someone or something, such as facts, information, descriptions, or skills, which is acquired through experience or education by perceiving, discovering, or learning" and emphasizes that "data represents values attributed

to parameters, and knowledge signifies understanding of real things or abstract concepts. As it regards data, the information's existence is not necessarily coupled to an observer (it exists beyond an event horizon, for example), while in the case of knowledge, the information requires a cognitive observe".

Thus, knowledge assumes the key role of an active subject, who has some degree of freedom to extract an information from data and further to interpret this information to receive knowledge and participate in creating of the next level of virtualization by means of understanding and subsequent acting.

6) Virtualization, Psyche and Consciousness

The modern scientific worldview let assumption that we can transform whatever into anything at all in the near future upon condition that we have enough energy and sufficient information (including mutual energy-information transformation). Thus, we are very close to materialization of the medieval alchemists' dream.

However, we should find a force that states stable in this flow of infinite transformation and migration from one level of virtualization to another. In addition, we should define a driver for transformation "data – information – knowledge", which creates the new sustainability energy-information exchange system named virtual reality or a level of virtualization.

The psyche and consciousness seem to be candidates with the most explanatory potential in this context. There is no sufficient explanation of these phenomena as for now and existing approaches are more controversial even than the theory of everything in physics.

6.1. Living or Non-living

The first fundamental attribute of psyche is that psyche is something that let us intuitively to distinguish living and non-living, perhaps, thanks to mirror neurons, notwithstanding a borderline is very shaky that Bose (Bose, 1902) and de Chardin (Chardin, 1987) emphasized more than century ago. In general, living means the higher levels of virtualization and their plurality (biological, genetic, social etc.) as compared to simple physical and chemical types of motion. The complexity of level of virtualization may be estimated as a degree of psychic distinctive manifestation.

6.2. Sustainability in the Changeable World

There is a wide range of theories on nature of psyche and consciousness, developed inter alia by Rodger Penrose (Penrose, 2005), David Bohm (1994), David Chalmers (2013). All of them suppose that conscious is something more than a simple characteristic of the fabric. Thus, Chalmers, answering the "hard problem of consciousness" suggests that conscious is a fundamental constituent of the Universe.

Some of them try analysing consciousness as a quantum phenomenon only, but they lose sight of the second fundamental attribute of psyche – its capacity to support stability of certain node of energy-information exchange despite of the permanent motion through different levels of virtualization. Death of any creature (including bacteria, plant, animal, or social formation of different scale) means that such system lost this capacity and disintegrated very fast. Erwin Schrodinger also noticed this capacity.

In language of physics, the fundamental force, that let objects to safe their shape and curve space-time, is gravity. For this reason, the psyche should be considered as the source of gravity. Any living being not merely maintains its own wholeness and development but tries to transform the space-time in its accessible environment.

Moreover, as the modern physic supposes the dark matter and/ or dark energy is the sources of gravity, the hypothesis that psyche is manifestation of intangible dark matter and dark energy is very promising. Our modern equipment may not detect psyche, but it interacts with real world shaping it in innumerable ways.

This assumption emphasizes that the way to the theory of everything in physics goes through integration with psychology, as Jung (Jung, 2003) foresaw.

6.3. The Creative Power

The third fundamental attribute of psyche is its creative power. Since early XV century, "create" means "to bring into being" (Online Etymology Dictionary, 2018). Thereby, psyche has a capacity to convert dark matter and dark energy into real world objects. This conversion arises like a qualitative (or quantum) jumps between levels of virtualization thanks to generating limited quantity of the most promising developmental variants and selecting the revivable forms among them (through insight and intuition). Thus, as a rule we do not go over all numberless possible combination of energy and information in space-time. This really looks like quantum computing (Deutsch, 2015).

6.4. Freedom to Generate Meanings

The fourth fundamental attribute of psyche is generating meanings (or conceptualization). Sense ("faculty of perception," also "meaning, import, interpretation") or meaning (derived from "mean" – "intend, have in mind" (Online Etymology Dictionary, 2018)) is sea-light for movement between levels of virtualization and the fourth component in the row "data – information – knowledge". As Lloyd mentions, sense is one of the main features of information, but "meaning of a piece of information depends very much on how the information is to be interpreted" and "meaning is defined only relative to a scheme of interpretation" (Lloyd, 2014). Dretske emphasizes that "concept acquisition … is essentially a process in which a system acquired the capacity to extract a piece of information from variety of sensory representations in which it occurs" (Dretske, 1983).

Jung used the meaning to integrate physical and psychic and added a dimension "causality (constant relation by dint of result) – synchronicity (inconstant relation by dint of randomness, equivalence or "Meaning")" to the dimension "unannihilable energy – unannihilable space-time continuum", proposed by Pauli (Jung, 2003). The last dimension should be specified like "unannihilable energy-information – unannihilable space-time continuum". The existence of true randomness, based on quantum entanglement, is confirmed by the physics (Gisin and Aspect, 2016). The new hypothesis developed by Cao and Carroll (2017) insists on our space-tine genesis from such entanglement.

The fundamental human freedom is freedom of interpretation of any data, information and knowledge. The freedom to generate meanings is the highest form of the freedom of interpretation that let us voluntary chose a level (or levels) of virtualization for being at the concrete moment of space-time. Frankl noticed that meaning of meaning is to direct the way of being (Frankl, 2018).

Moreover, meanings have a very powerful capability to mobilize maximum energy and other resources, overcome inner and external obstruction, creates the flow state of mind (namely release the energy-information exchange). This capacity is known as inspiration. The key distinction of the artificial intelligence from the natural is that AI does not generate meanings and, correspondingly, does not move voluntary between levels of virtualization, at least now. All illusions of such generation are rather borrowed meanings from AI human creators. Therefore, AI may be frightening to the same extent, as we are ourselves.

7) Collective Consciousness

Summarizing all attributes, psyche is the independent physical force that creatively regulates the information-energy exchange in its movement between different levels of virtualization driven by meanings.

Consciousness is the highest among known to humankind type of psyche, which has distinguished capacity to create meanings voluntary.

When any carrier of psyche reflected himself or herself, he or she creates sustainability in space-time despite of changeable energy-information exchange and established implicit or explicit boundaries. This phenomenon is called self on the individual level, team spirit for the small groups, national or state idea for the nations or states, and anthroposphere (or noosphere) for the humanity.

Of course, forming of collective intelligence and being a part of the collective self is not the very first experience for each of us. However, in contradiction from the unconscious assimilation of family, culture, and national identities, thanks to network technologies, we get now a unique opportunity get conscious experience of becoming a part of something colossal and even cosmic. It is comparable with evolution of temporary one-celled colonies into metazoans in ancient times.

Another metaphor is transformation of compound (faceted) eyes of insect into eyes of mammal or bird, when thanks to a quantum leap in nervous system myriads of reflections becomes the united image. In a similar fashion, the big data processing, network developments etc. give us possibility moving to the new quality of understanding similarly to stereo pictures perception and action in this world. This movement requires technology development, automation and robotization of routine tasks and tight collaboration between people and technic devices. We have been near a point of singularity already right now.

Therefore, we need the collective consciousness of the next level of virtualization to move forward efficiently and safely. However, for our commonsense economics, politics, religion, science, healthcare, education etc. create their own virtual realities with relatively close system of their own laws. Each of them was the independent step in humankind evolution. At the same time, all of them are interrelated within unity of the next level of virtualization. Similarly, we are used to estimate sequential levels of virtualization for a human (genetic, physical, psychic, social, professional, cultural) separately, but all of them create the new level of virtualization called personality or self with its own relatively consistent laws.

For development of this new wholeness of humankind we need the rules systems (called in social scale laws) and should start with laws for cyber space. Cybersphere literally means “sphere of governing”, as cybernetic “theory or study of communication and control,” coined 1948 by Wiener, derives from Latinized form of Greek kybernan “to steer or pilot a ship, direct as a pilot,” figuratively “to guide, govern”, and, perhaps, bases on 1830s French cybernétique “the art of governing” (Online Etymology Dictionary, 2018). These social rules are laws of the next level of virtualization comparatively with laws of mashing coding and data transmission.

8) System for Correcting Mistakes: Collective Immunity and Counter-Suggestion

Any evolution spiral starts spinning thanks to polarization that let forming the unity of different calibre and level. One of the key polarities in social evolution and migration to the higher levels of virtualization is development of suggestion and counter-suggestion. Porshnev described suggestion as a capacity of one subject to inhibit voluntary action of another subject to obstruct some kind or any action on this another person (Porshnev, 1974).

Thus, one of the theories of language origin is that language (which is phenomenon of very high level of virtualization comparatively with physical contact interaction) has developed as a mean for suggestion first at all.

As any communicative act is an attempt to influence other's behaviour (namely some manipulation), the subject who is more efficient on the current level of virtualization (who may involve others into energy-information exchange on his own rules) will be more effective not in suggestion only, but in own survival and expansion. However, if this subject becomes danger for his counter partners, they develop distrust filters for information blocking up to emotional rejection and complete nonunderstanding. It could mockery or another dialect evolution. All these means called counter-suggestion and they exist on the neighbouring levels of virtualization: higher (when new dialect develops) or lower (i.e. psychosomatic deftness).

Then the cycle repeats: the means to overcome counter-suggestion should be looking for, counter-counter-suggestion appears, it works by certain moment only, show goes on, and the evolutionary spiral spins.

Something very similar happens with our body when we get bacteria or virus. As we have two types of immune reaction, we turn out invaders or kill them. Viruses are dangerous for us much more as it makes an information intervention and call for a transition to the higher level of virtualization to overcome them. Analogically, a social or collective immunity is formed on the society level not against the physical diseases only but for suggestion also.

Additionally, any migration between the levels of virtualization (namely to the next mode of energy-information exchange regardless to higher or to lower) causes crisis. It is true for personality (for instance, crisis of three-year, crisis of middle age, retirement crisis) and for societies (for instance, industrial revolution or financial crisis 2008). People and societies are especially vulnerable, instable and sensitive to suggestion in such crisis periods.

Thus, each person, social group and humankind as the wholeness need the adequate system of prevention and healing as a way not to avoid mistakes in interaction with the world but to correct them in time, getting new experience (Deutsch, 2014).

Such prevention and healing may be effective only if they use means of the next level of virtualization and in such a manner eliminate tension between poles. All remember the collocation by Einstein: "We cannot solve our problems with the same level of thinking that created them". Therefore, all successful psychotherapy methods base on voluntary motion between the levels of virtualization: from body-oriented therapy (moves to the body level) to psychoanalyze and logotherapy (moves to analytical and meanings levels correspondingly).

As was mentioned, the easiest way to the next level of virtualization is vision of meaning. It helps accelerate immunity forming in social sphere. Today we have a wide raw of tools for immunity forming with very different effectiveness: own experience to learn resisting any negative effects, critical thinking, traditions, religion, moral, artistic culture, different kind of education, healthcare system, far-reaching legislation, different types of political systems, social self-regulation etc.

Naturally, the strong immunity is a basis for the deeper and wiser trust to self and to others: if you have a strong immune system, you are sure that you may correct almost any mistake.

9) Sources of the Special Dangerous, Customs and Traffic Rules

According to definition, given in Constitution of the World Health Organization, **health is state of complete physical, mental and social well-being and not merely the absence of**

disease or infirmity. By the way, the word “health” and “heal” derives from “wholeness, a being whole, sound or well” and “make whole” correspondingly (Online Etymology Dictionary, 2018).

Thus, it means that healthy person is not only efficient at least on three levels of virtualization (physical, psychic and social), but also these levels are in balance, and person may voluntary move between them. By other words, **all the levels of virtualization create the well-balanced wholeness**. Everybody knows how strong emotional pain paralyzes activity on any other levels. The best way to overcome this pain, is move to other levels, concentrating on own body, making physical exercises, observing it from a distance and letting go away, interacting with other people etc.

It is remarkable that Constitution of the WHO use collocation “health of all people” and not “each person” only. Our being is transforming too drastic now. Ramo, analysing the changes of the nature of power, fortune and survival in the Age of Network, supposes, that the biggest danger for the humankind in XXI century is mental illness (Ramo, 2018). This consequence is expected, as we create and reclaim new levels of virtualization and new virtual realities.

In the Age of Exploration existed the similar situation, when contact between different cultures caused not only explosion of development for some cultures but was lethal for many aboriginals ethnises. Mari Swingle uses the similar terminology in the research on digital natives and digital immigrants (Swingle, 2016). Thus, our overall goal is looking for the safety way of development **for all people in any virtual reality**.

Nobody can overestimate the positive role of the information technology the same as it was with invention of motor vehicles, fast carbohydrates food or nuclear energy. However, each of them carries threats and society tries to neutralize them by establishing sets of rules: traffic rules for vehicles, mass campaign to popularize the health diet for fast carbohydrates food, international restrictions for the nuclear energy usage. Additionally, the special legal doctrine the source of special (or increased) danger appeared.

By analogy of law, all information technology should be considering the source of special danger (increased threats) and the legislative regulation should develop this doctrine.

The main feature of these sources is that they multiplied any, even the smallest, imperfection in behaviour and self-regulation of a person using them and, consequently, create threats for this person and for others. For instance, Swingle distinguishes technological integration, when technology “replaces other methods, or expands a desired trait”, and technological interference, “when technology overrides a desirable trait or eclipses a developmental phase” (Swingle, 2016).

Thus, the **first precondition for the safety usage of any source of special danger is our own maturity and wholeness**.

Of course, we do not come into this world mature and well experienced. There are many categories of people, who need a help in development of safe technology usage skills: children, **aged people**, and people in vulnerable position because of different physical, mental and social factors. Unfortunately, we discussed a lot of threats for children, but leave out of account other categories, first at all aged people, whose chance for specific immunity forming are low.

However, all of them need protection and efficient (and conscious) tools to form **technology or digital immunity**. Semantically, immunity means "exemption from service

or obligation" deriving from Old French immunité "privilege; *immunity from attack*, inviolability", Latin immunitatem "exemption from performing public service or charge, privilege," and immunis "exempt, free, not paying a share" (Online Etymology Dictionary, 2018). This is "a condition of being able to resist a particular disease especially through preventing development of a pathogenic microorganism or by counteracting the effects of its products" (Merriam-Webster Dictionary, 2018). Technology, or digital, immunity may be defined as **a set of personal or collective capacities and skills to avoid the main threat of technology world – involuntary involvement in energy-information exchange**. By other world, to be immune to something means to be free from the consequences of interaction.

Consequently, **the second precondition for the safety usage of information technology is forming technology or digital immunity.**

There are different approaches to immunity development. Some of them may happens **spontaneously or thanks to another threat**. The example is increase of behavioural selectiveness of Facebook users. According to Pew Research Center survey, conducted in US in May – June 2018, 42% users say they have taken a break from checking the platform for a period of several weeks or more, while 26% say they have deleted the Facebook app from their cell phone (Pew Research Center, 2018).

Also, in ancient and in our times, in early childhood and in adulthood we use myths, fairy tales, movies, books, computer games and Internet as a **virtual simulation**, creating and reclaiming virtual realities to get necessary experience. In our days virtual games may fulfil the same function.

States either establish preventive barriers on sources of special danger usage for people who have no adequate immunity. For instance, in the most of countries you may not get driving license before age 18. The similar approach should be used for information technology too. Today most of social networking services put age census between 13 and 18. The similar limits are suggested to establish for cell phones usage. Thus, Manfred Spitzer supposes it should be 14 (Spitzer, 2012). However, a temptation to avoid all barriers is too strong and even parents often help their children to do this.

So that, **the third precondition for the safety usage of information technology is the effective error-correction system**, as information technology is developing in unpredictable way. This error-correction system should include **three components**: system of **behavioural norm development**, system of **behavioural norm enforcement** (positive and/or negative) and system of **behavioural norm changes**. Citing Deutsch, "good political institutions make it as easy as possible to discover whether a ruler or policy is a mistake, and to remove mistaken rulers or policies without violence" (Deutsch, 2014).

Of course, each of us may wait for reaction from the side of a "special educated officials"; however, this strategy is not effective in view of five reasons:

1) Cybersphere develops too fast and creates too many new virtual realities every minute. As Harari mentions, "in the coming decades, it is likely that we will see more Internet-like revolutions, in which technology steals a march on politics. Artificial intelligence and biotechnology might soon overhaul our societies and economies – and our bodies and minds too – but they are hardly a blip on our political radar" (Harari, 2018);
2) Officials are very often some years slow even in their private usage; they are undermotivated for fast reaction; their average age is quite different from the age of the most vulnerable users;

3) The most of governmental and private official institutions are too slow acting, often unduly politically and economically motivated, while their legal acts are overcomplicated for perception (for instants, GDPR or Facebook policies);
4) We leave in epoch of collective knowledge, as nobody is able to know or even try understanding everything on the certain subject. Thus, we should tell about the power of the collective intelligence and use it as it described by Sloman and Fernbach (2018);
5) We need some self-enforcement regulative instrument, as there are no resources to protect or control everybody. Moreover, an attempt to such protection is undesired, as we may see in different mirrors of collective consciousness from "1984" by Orwell until Case of Big Brother Watch and others vs. the United Kingdom.

Fortunately, legal theory has a doctrine that may satisfies all mentioned condition, is efficient and checked by thousand years of practice. This is a **custom**, i.e. long-established social practice considered as the official sources of law in the majority of states and on international scene too. Ramo notices, "what will decide our future, …, is not merely our rulers but the quality of our sitizens" (Ramo, 2018).

The key role of custom for cybershere was emphasized by Polansky more than 10 years ago in his amazing research (Polansky, 2007), however, this sources of law is underdeveloped as for now and mainly professional lawyers make first steps to systemize current digital law (Harvey, 2011; Harvey, 2017). These attempts are brilliant but limited in view of finitudes of one person's abilities. Moreover, terminology is not unified today, should it call cyber law, digital law, i-law, virtual law (by analogy with developed in Russia virtual psychology (Nosov, 2000)) or something else.

In view of this, the society needs an instrument for fast-reacted self-regulation, especially in cyber space, including rules (in form of custom as the very first step) for virtual and alternate realities and interaction with artificial intellect, robots and self-driving vehicles.

For this reason, the wisdom and potential of collective consciousness (collective intelligence) may be used for creating a **global crowd platform to self-regulate the fast-developing and weakly predictable virtual space**. The general advantages of this platform are following:

1) It combines the enthusiasm of Wiki projects (Isaacson, 2017; McGonigal, 2016) with laconism of Ten Commandments given to Moses.
2) It is fast-reacted sources of law for private (civil) relations known as custom in international and local jurisdictions (Polanski, 2007).
3) It activates the power of self-enforcing agreement as any person may feel like co-creator of through involving in corresponding discussion (McGonigal, 2016; Ramo, 2018).

The developed in this way customs may be later enforced by states or on the international level as it was with Convention sur la circulation routière (Genève, 1949), and to be a start point for development of cybersphere self-regulation.

The programming means, which may be a basic for the development of the mentioned platform, are, first at all, wiki software, blockchain and artificial neural networks.

Four social psychological solutions, effectively used in game industry and disrobed by Jane McGonigal (McGonigal, 2016), such as involvement in **epic goal-driven projects, feeling social connection, immediate feedback** (including interactive individual avatars reflecting the results of each participant's activity), **hope for the successful outcome** will

be used for permanent involvement of participants in this project on the wide social level.

Moreover, the mentioned platform may be useful for self-regulated industry associations, international organizations, and active lawyers, as (if folklore is right) each lawyer dreams create a precedent.

In addition, countries with high IT potential have the unique opportunity to carve out an estimable place in history, as patriotic feelings create sometimes miracles: we can refer to polonium discovering and naming by Sklodowska-Curie or Arctic and Antarctic Exploration by Nansen's and Amundsen's expeditions.

Of course, threats of populism, trust, politicians' dependence, and overregulation exist. Thus, we could mention Tymoshenko, who declares creating platforms of intellectuals in Ukraine to work out a strategy for changes, including platform "to the creation of a harmonious ecosystem of human life" (Interfax-Ukraine, 2018), however she is discredited herself. U.S. "Cyber Deterrence and Response Act of 2018" looks like an example of overregulation.

However, citing Harari, "if in the twenty-first century traditional political structures can no longer process the data fast enough to produce meaningful visions, then new and more efficient structures will evolve to take their place. These new structures may be very different from any previous political institutions, whether democratic or authoritarian" (Harari, 2018).

Thus, let make our best for the new manifestation of our collective wisdom and infinite creative potential of our all-humanity intelligence.

5. Conclusion, Limitation and Future Work

The study presented the integral theoretical approach to the nature of virtual reality and its regulation. If the idea of the global crowd platform to self-regulate the fast-developing and weakly predictable virtual space is developed and implemented, society will receive the effective supranational instrument for fast-reacted self-regulation, especially in cyber space.

The integral theoretical approach to the nature of virtual reality and its regulation is presented, including:

1) concepts of energy-information exchange;
2) levels of virtualization;
3) psyche as the independent physical force that creatively regulates the information-energy exchange in its movement between different levels of virtualization driven by meanings;
4) information technology as the sources of the special danger;
5) power of legal doctrine of custom as the tool of self-regulation.

It is concept of the global crowd platform for virtual space self-regulation, the general advantages of which are following:

1) It combines the enthusiasm of Wiki projects with laconism of Ten Commandments given to Moses.
2) It is fast-reacted sources of law for private (civil) relations known as custom in international and local jurisdictions.
3) It activates the power of self-enforcing agreement as any person may feel like co-

creator through involving in corresponding discussion and decision-making.

The programming means, which may be a basic for the development of the mentioned platform, are wiki software, blockchain and artificial neural networks. This paper makes the very first step to develop the mention idea and create the sensitive collective perception. The next steps are the project plan development; involving the like-minded theorists and practitioners, team development, and the pilot project realization.

The described theoretical approach to energy-information exchange, psyche, consciousness, levels of virtualization, custom as a tool for collective immunity forming, seems to be efficient for the practical problem solving. As it proposes ideas, which has potential for the world transformation, these ideas will be developed in future research.

The concept of global crowd platform for virtual space self-regulation is the very first, but necessary step in development of the new network approach to law making with permanent usage of collective intelligence. Oppositely, referendums, as a rule, concern to one or several close questions and are inefficient too often, as referendums are some kind of snapshot or average temperature in hospital versus movie and targeted development.

Obviously, that further development and implementation of the concept of global crowd platform for virtual space self-regulation needs a great involvement in energy-information exchange of very different flows and levels of virtualization; it needs a lot of resources, inspiration, charisma, and, first at all, **solid and enthusiastic team**. In addition, it needs good luck, that will mean that place and time were chosen correctly.

As any joke, the popular Internet meme: “Save me!” – “As .jpg or .pdf?” reflects some deepest wisdom and is something more than a fun only. Thus, we should not wait too long, as have a unique opportunity to develop a new approach to creation of regulatory framework for the mental health protecting in any types of newly invented human worlds. “If not us, then who?”

Limitations of the study: Volume of this research does not let to develop each statement of the theoretical approach deeply enough. Description of the practical approach is strategical and needs tactical development for the implementation.

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Our life journey is very unpredictable, but we come into this world in certain place and certain time, and directly or indirectly interact with infinite quantity of people who lived, live or even will live. All of them contribute to our development and our achievements.

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