

Can Sustainable Human Manage to Prevent Imbalances in the Natural and Social Environment?

Czy zrównoważony człowiek może zapobiec nierównowadze w środowisku naturalnym i społecznym?

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Abstract

The article contains reflections on modern models of human, created by capitalist socioeconomic formation. First of all, they refer to those models whose implementation affects the imbalance of social systems. These are different version of *homo oeconomicus* and *homo digitalis*, which is the latest version of *homo virtualis*. Their propagation poses a serious threat to the maintenance of balance in the social environment, and, consequently, to humankind. However, recently, the model of ecological man appeared, and his new version, a sustainable man, is only *in statu nascendi*. He differs radically from *homo oeconomicus* and *homo digitalis*. Therefore, one believes that he will stop the pace of disequilibrium in the social environment. However, his success is doubtful.

Key words: social environment, homeostasis, economic man, digital man, sustainable man

Streszczenie

Artykuł zawiera rozważania o współczesnych modelach człowieka, wykreowanych przez kapitalistyczną formację społeczno-ekonomiczną. Przede wszystkim dotyczą one tych modeli, których implementacja wpływa na wzrost nierównowagi systemów społecznych. Są to różne odmiany *Homo oeconomicus* i *homo digitalis*, który jest najnowszą wersją *Homo virtualis*. Ich propagacja stwarza poważne zagrożenie dla utrzymywania równowagi w środowisku społecznym i – w konsekwencji – dla ludzkości. Jednak ostatnio pojawił się model człowieka ekologicznego, a jego nowa wersja – człowiek zrównoważony znajduje się dopiero *in statu nascendi*. Różni się on diametralnie od *Homo oeconomicus* i *Homo digitalis*, Dlatego przypuszcza się, że powstrzyma on tempo narastania nierównowagi w środowisku społecznym. Wątpliwe jest jednak, czy to mu się uda.

Słowa kluczowe: środowisko społeczne, homeostaza, człowiek ekonomiczny, człowiek cyfrowy, człowiek zrównoważony

1. Initial remark

The social environment differs from the natural one, in that there are no naturally incorporated homeostasis mechanisms. At most as natural ones one can consider those that work in the context of the natural conditioning of social systems. Others are artificial because created by culture. Therefore, in the social systems there is no natural tendency to maintain a balance in them. The mechanisms of homeostasis in the social environment are the exclusive work of the people. They strive to maintain a balance mainly from the will or the need to maintain order what is a

necessary condition for the proper functioning of social systems and people in society. In addition, people must maintain a balance in society to prevent its loss of identity of its components (social subsystems, groups, organization of institutions, etc.) and to prevent their destruction. Because, the more something is balanced and stable (the preservation of identity is a necessary condition, though insufficient for stability), the more it is immune to external and internal destructive forces and, consequently, it has the greater chance of survival.

The hitherto social evolution has confirmed the Hegelian and Marxian concept of the development,

built on three principles of dialectic: *Transition of quantitative change in qualitative*, *Unity and struggle of opposites*, and *Negation of negation*. In each of them, the *golden mean* plays important role, because it ensures the sustainability of the social system. In the first principle, exceeding the *dialectical measure* results in a *qualitative leap* (also a *revolutionary change*) that can lead to destruction of system. In the second principle, the *unity of opposites* ensures the harmony, identity and stability of the system despite opposition in it. And in the third principle, the *negation of negation* guarantees the repetition and continuity in the evolution of the system, and thus its genetic identity and survival. Perhaps this theory will also apply to future social systems, if it is right the so-called historical thinking based on inference from earlier states of system to later ones. I assume – and this assumption is largely justified when events in the near future are foreseen – that this way of thinking can be used to predict future phases of capitalist formation. The fate of this formation is of particular interest to us, because we live in it and we struggle every day with its problems. So far, we do not know what socio-economic formation will take place after capitalism and what *post-capitalism* will appear in further social evolution. In the early stages of its development, capitalism was a useful formation primarily because it accelerated the pace of economic growth and the development of all that was conducive to it:

- Increase of civil liberties proportionally to the development of democratic system.
- Technological and scientific progress.
- Rebuilding traditional systems of ethical values and moral principles in consequence of the relativization of ethics and secularization.
- The development of sciences that increase the productivity of people and technical devices..
- The promotion of spiritual culture and art that support the development of capitalism,
- Shaping of consciousness, interpersonal relations, attitudes and behaviors subordinated to the principles of wealth and profit maximization,
- Fetishization of money.

However, from the beginning, negative phenomena accompanied the achievements of capitalism. With time, its fundamental internal contradiction between capital and work deepens and sharpens. They appear also derivative contradictions, which are still more as the social evolution complicates, and it is difficult to alleviate them. It is therefore correct to doubt the benefits resulting from the further development of this socio-economic formation. Fortunately, many symptoms indicate that its development has crossed the culmination phase and entered the decline phase.

The pace of this phase accelerates in spite of the efforts of theoreticians and practitioners of economics, which attempt to prolong its duration.

Apart from the various negative consequences of the development of capitalism, not because of they are less important, I pay particular attention to one important and at the same time threatening – the progressive exploitation of the resources of the natural environment and the destruction of the social environment. The plundering economy accompanied the formation of capitalism from the beginning. It is only recently that one goes slowly away from it because one is aware of what ecological threats are created by such rapid depletion of these resources, and how important they are. The consequence of the still overexploitation is the sharpening of new and old social contradictions and the violation of the dialectical measure, unity of opposites and dialectical negation in social systems. With that, social systems become less and less determined and their imbalance grows permanently. This creates conditions conducive to their destabilization and destruction.

2. Contemporary models of human

The capitalist system in its development creates various models of human for the immediate needs of economy and politics. One creates different visions of society according to them. One from them promotes the development of the human species and the other contributes to the degeneration of social and human relations. The evaluation depends on the choice of the criterion. I evaluate them with the *ecological criterion*: valuable and good is what favors the survival of humankind directly or in the final account. In consequence of the progress of civilization, human changes gradually from natural to artificial. The higher the civilization, the more human becomes a substitute for him – the human artifact. In modern times, this transformation progresses more and more rapidly, proportionally to the development of capitalist formation and to the implementation of the market economy. This is an irreversible process; nothing will restore people their original naturalness. People relate differently to the phenomenon of growing artificiality in its environment and in itself. On the one hand, they yearn for earlier naturalness and they rebel against the artificiality that fills their environment and themselves, and on the other hand, they want to be fit and live in ever-greater comfort what requires the use of various artifacts. Ideally, one should reconcile one to another according to the Aristotelian principle of the Golden mean (see: Zecha, 2011).

Of the many human models, I focus on those that play a special role in shaping the social reality now and in the future.

2. 1. *Homo oeconomicus*

With the progress of a market economy, it develops the model of the *economic man* that is a specific version of artificial human. He is, in a sense, a *suicide of his species*, because he unintentionally contributes to the destruction of its natural and social environment and consequently to the destruction of humankind. John Stuart Mill first introduced the name *Homo oeconomicus* at the end of the 19th century. He defined the economic man as a person who, by necessity, does this, what allows him achieve more wealth, comfort and luxury at the smallest expense of the work and least of sacrifices¹.

Following features characterize *Homo oeconomicus*:

- He increasingly subordinates himself to market laws that are artificial because invented by people.
- His actions are rational in the specific meaning of this word, because they focus on a single, fundamental goal – on such economy and management, which gives him maximum profit, wealth and luxury. Therefore, he remains in the service of the Golden Calf, what in itself is not rational for other reasons². Therefore, one says, he is a *dollar-hunting animal*.
- Despite this, he is perceived as a rational man, as desired by his well-being depends on optimizing the utility function (Optimization of a function is a full-rationalized mathematical operation). However, this kind of rationality does not determine the rationality of his goals in the ethical, social and human sense. For this reason, one considers generally *Homo oeconomicus* as an amoral person, because he makes choices and decisions guided by its own utility function; he ignores all social values and altruism is alien to him.

2. 2. *Homo consumens*

Capitalist system simultaneously created economic man and consumer man. The first is oriented to reach maximal profit and the other to maximize consumption. The first acts rationally to increase his wealth, whereas the other acts rather irrationally to satisfy his various over-standard needs and whims. The advantage of both is that they contribute to economic growth because the one maximizes profit through the production of goods over demands and the other contributes to the sales of these goods. Nevertheless, one judges negative *Homo consumens* like *Homo oeconomicus* for different reasons. The one and the other harm society as they contribute to the deepening of

social inequalities and to the degradation of social relations what threatens to degrade social systems. They also contribute to the distortion of personality, character, behavior, attitudes, emotional and spiritual sphere, which threatens the degradation of the human species.

Previously, production played a major role in the economy and then consumption. There is nothing wrong, until both are in equilibrium. But since a short time, it increases quickly imbalance between them. It increases as the production transforms in overproduction, consumption in overconsumption and when the needs are replaced by whims. Excessive gap between them (exceeding the *dialectical measure*) leads to the collapse of the economy. Therefore, many economists warn against the progressive overconsumption and the rise of demanding attitudes. The consumption of goods over real needs has long been criticized by Adam Smith, who treated it as the greatest enemy of stable economic growth – as we say today – of sustainable development (Smith, 2012). Now, many philosophers and scientists criticize it. Of many others, it is worth mentioning Erich Fromm (Fromm, 2011) and Zygmunt Bauman (Bauman, 2007). They point to the negative consequences of this ideology, such as McDonaldisation, terrorism of advertising and marketing, Disneyization, supermarketization, pressures on productivity and profit, rapid acceleration in the rate of work and life, increase of demanding attitudes, and growing and risky (due to repay ability) debts of people, organizations, institutions and states. A morbid extreme form of *Homo consumens* is the *shopaholic man*. Many people do not like the recognition of consumption as a determinant of quality of life, either the highest or even the only ethical value. Mainly, for this reason it is officially criticized by the Catholic Church (the most by Pope Francis), who sees in consumerism a destructive power of society, equal to atheism. The implementation of the *Homo consumens* model has contributed to the globalization of the ideology of consumerism. One of its consequences is the destruction of the diversity of social life forms and the leveling of cultures in a global consumerist mass culture, which charges the notions of freedom with a *duty* to consume and causes people with the *feeling of freedom* to fulfill the consumer imperative (see: Passolini, 1975).

Modern economists who see evil in overconsumption will make the same mistake as formerly economists in socialist countries, who addicted economic growth above all on the development of productive forces and who ignored the role of *consumption forces*. They probably did not study Karl Marx's the-

¹ *Homo oeconomicus* is a term used for an approximation or model of *Homo sapiens* that acts to obtain the highest possible well-being for him given available information about opportunities and other constraints, both natural and institutional, on his ability to achieve his predetermined goals.

This approach has been formalized in certain social science models, particularly in economics.

² Now, it is difficult to set the limits of rationality. Therefore, it is unknown at what point our proceedings are no longer rational. About various meanings of rationality (see: Banse, 2002).

ory of the need for synergic progress in productive and consumer forces. Perhaps they did not know this because Marx's article on this topic was published in Russian in 1921 for the last time in the hard-to-reach journal *Bolshevik*. One cannot exclude that they did not see the possibility of satisfying the growing needs in the conditions of economic isolation USSR and retarded technology. The cause of the spinning spiral of overproduction and over-consumption is not so much in subjective factors as in the objective mechanism of functioning of the capitalist economy. The cause is not *Homo consumens*, but what this human model has generated and still develops, i.e. the essence of capitalism. Without the elimination of capitalism, the model of *Homo consumens* will become higher and even more degenerate forms of some *Homo superconsumens*. Appealing to the ethics or conscience is doomed to failure.

2. 3. *Homo prodigus*

The modern economy is becoming more rationalized and economic activity demands operative thinking subordinated to the requirements of logic and pragmatism. Such thinking is a powerful and effective weapon in the struggle for existence and survival in a world full of competition. Victory depends on the efficiency of economic activities (business activity), labor productivity and minimize production costs. Thinking rationally based on economics and production has developed in people the habit to save. In addition, the need for saving is due to ecological reasons. People were forced to save natural resources being aware of their rapid depletion. Saving is the accumulation of stocks in order to profit from them, when necessary, or is to consume something as little as possible. The more rational the economy is, the more one can save. However, saving does not always pay off. For example, when it is false, i.e. when one saves on the one and one loses a lot more on the other. One can also lose on saving if one put savings in an insecure bank. Excessive saving also is bad when it turns into greed. In spite of this, saving within reasonable limits is useful and facilitates survival. In a free-market economy aimed at maximizing profit, rational management combines with saving. *Homo rationalis* ought also to be *Homo frugal*. Meanwhile, in our time, a highly rationalized economy, driven by the rise of over-consumption, has led to increased prodigality and wastefulness. On the one hand, it saves on production costs and on the other hand, it creates artificial demand for offered in a huge excess of goods and services *Homo rationalis et frugi* (a rational and frugal man) has transformed into *Homo irrationalis et prodigus* (an irrational and prodigal or wasteful man). A prodigal man is a degenerate type of economic man. Nothing indicates that this will change, at least in the foreseeable future. (This transformation does not concern the poor who have nothing to spare. Besides, no one counts with them, except for the populists). Increasing

wastefulness has become a fact, and even an advantage commendable that belongs to the good tone. It is an irreversible phenomenon in the contemporary model of the world economy. Even the idea of sustainable development will not restore the balance between justified needs and rationally frugal supply. This idea is not aimed at saving energy resources, but rather replacing traditional energy (coal, wood and oil) with alternative sources of energy (wind, water, sun). It does not eliminate excessive energy consumption (e.g. illuminations, ads, etc.) or materials. It is an idea that supports a model of over-consumption, over-production, and over-wear, and therefore a wastefulness that is growing despite recycling.

The development of *Homo prodigus*, prodigality and wastefulness is proportional to the progress of civilization and living standard. Particularly visible and outrageous is the waste that manifests itself in the destruction of food, paper, clothing, footwear, electronic equipment and other goods as a result of technical progress and changing fashion, and not because they are no longer usable. People without thought and sense of responsibility waste all what and how much they can, to satisfy their whims (in essence imposed by fashion dictators and advertisers) and to feel appreciated. Often and commonly, they take loans that are increasingly difficult to pay them. As a result, they pauperize themselves, but for that, they provide growing profits to owners of corporations and to the global financiers.

2. 4. *Homo festivus*

Homo festivus (celebrating human) was appeared when people become aware of the powerlessness of the *invisible social forces* in the modern world, of the helplessness of their own destiny and of the boredom due to the increasing comfort of life, of the lack of interest and of the reluctance to undertake intellectual and bodily effort. All that remains to him is fun, games and celebrations. *Celebrant Man* is, in a sense, a self-satisfied hedonist who feels *happy slave* in the present enslaved social reality. And this reality has not much in common with the old world of contents and concrete things. Its distinguishing features are:

- Lack of respect for holiness, God and humanity because of secularization, ethical relativism, economization of life.
- Tightening of differences, conflicts, contradictions, and aggressions that arise even for trivial reasons and increasingly take on a global dimension.
- Blurring the boundaries between reality and fiction because of virtualization.

Homo festivus has the past for nothing. Therefore, he despises the old world and recognizes it as needless ballast. Nor does he care too much for the future. For him the most important is the present. He is therefore a presentivist or recentivist. He sees social reality as momentary great feta, Disneyland, amusement park,

a fair of modern miracles filled with a crowd of bal-angists and vacationers. Our present social reality is like *an park of abstraction where words and concepts are still running, but like chickens with cut heads* (see: Muray, 2008). *Homo Festivus* does not accept borders, barriers and differences, distinctions between truth and falsehood, talent and mediocrity, human and animal. He wants everything to be equal, he dreams of a world without secrets, hierarchies, generations, nations, etc. He dreams above all an integral egalitarianism, which erases age difference (between the child and adult), and gender difference (between men and women). Welfare state as a mother, a *Big Mother*, is an institutional response to widespread infantilization (see: Rieger, 2017).

The celebrated man, created in a natural way by the contemporary social reality, turned out to be the essence desired by the elites of power. They need people who either are not able or do not want to think critically, who avoid social participation, and instead of being active in politics they prefer to play and admire cheap mass entertainment, who are interested in life and adventures of celebrities (often imaginative and shocking), and who participate in secular and religious festivals adequate to their intellectual level and mass taste. One can marginalize easily the *Celebrating people* and move them away from issues that are important for society and the country. One can easily drug and fool them as well as manipulate them like puppets. They just do not make trouble for the ruling elites. Therefore, such people are extremely desirable by them.

2. 5. *Homo virtualis*

The intrusion of people into natural processes, mainly the destruction of homeostasis mechanisms that support the proper functioning of nature, has reached such a level that in 2000 Paul Crutzen (Dutch chemist, meteorologist and Nobel laureate of 1995) and Eugene F. Stoermer (American biologist) have introduced a new geostatigraphic unit, which they called *anthropocene* (human age).³ According to J. Zalasiewicz, a senior lecturer in palaeobiology at the University of Leicester, it was initiated by the first nuclear test in Alamogordo, New Mexico on July 16, 1945 (see: Zalasiewicz, 2015). Since then there has been an era of nuclear energy⁴. In this age, people increasingly disrupt the natural ordering of geological deposits, devastate the natural and social environment on an unprecedented scale, and consequently, inadvertently, degenerate themselves. Technological progress and the development of natural sciences contribute to the destruction of the natural

environment. And the destruction of the social environment progresses with the development of social sciences, psychology, neurophysiology of the brain, and the technology of influencing consciousness and subconsciousness. Degradation of both environments is also effect of economic factors. Today, there is no such subdomain of social environment, which would undergo no devastation as, for example, environments of work, family and education.

For years, in the era of anthropocene *Homo oeconomicus* caused the greatest environmental degradation of our life-milieu and now, *homo virtualis* (e-man) begins to help him in this work. The first initiated the anthropocene phase, called *capitalocene*, i.e. the epoch of capital, and the second – an epoch, called *virtualocene*, the epoch of the virtual world. No system has destroyed the environment in such degree as capitalism.

Indeed, capitalism appeared in the sixteenth century, but only for decades, capital interventions in private and social life, in all social and cultural spheres (politics, morality, religion, etc.) grew as never before. One expects that in the future it will increase even more. Consequently, the contribution of economic man with consumer attitudes in the degradation of the social environment will continue to grow significantly. Whereas the virtual man will spoil this environment more and more, what will lead to the serious degeneration of the human species. He creates and develops in an accelerated pace a virtual world that more and more replaces the real world. Virtual world (shortly: *the virtual*) is a simulation of the real world made by computers. It consists of various virtual beings and objects: avatars, icons, emoticons, e-money e-shops, e-books, e-journals, internet radio and TV, public and social portals (e.g. Facebook, LinkedIn, Twitter), websites, communicators, etc. One can experience virtual world (get it know and explored it), actively participate in its functioning, and one can communicate within it with other computer users. Mark W. Bell (Indiana University) gave the following definition of the virtual world, which is a synthesis of several partial definitions: Virtual world is a synchronous, persistent network of people represented by avatars, functioning through a system of computers linked together.

One can create by computers, many virtual worlds, and their components can have such properties that differ from the properties of their correlates in the real world. In particular, in virtual worlds, the laws of physics do not have to apply. Virtual worlds are durable web-based, computer-rendered spaces (their computer images are created realistically) populated

³ Scholars of the USSR used the name *anthropocene* yet in the 1960s, but only in 2000, E. Stoermer and P. Crutzen introduced it into circulation. And in 2016 at the 35th International Geological Congress in Cape Town (South Africa) officially recognized this new geological era in the history of the Earth (see: Waters, 2016 and Zalasiewicz, 2008).

⁴ Reinhold Leinfelder (a geologist, paleontologist and geobiologist at the Freie Universität Berlin) claims that the anthropocene began several decades ago, since 1972, when the first 120-meter *Teufelsberg* was sprinkled in Berlin (see: Leinfelder, 2016).

by hundreds, thousands and even millions of people at once. Virtual world is a space created by the users and for the benefit of the online communities, which perceive and feel virtual world almost the same as the real world. Virtual beings and situations are developing more and more thanks to the intelligent technology. They are as if real elements of the sensory world, because they are presented on the material computer screens and perceived by the senses. And despite of this they are unrealistic because they are artificial, phenomena, and situations, for which exist often no real and natural correlations. Communicating with the virtual world implies at least two negative effects. First, it reduces our contact with the natural world with living people and real *living* situations. The more time we spend with the computer, the less we experience a real *natural* environment. Secondly, intense and continuous contact with the virtual world blurs the boundary between reality and fiction, embodied in virtuality. As a result, we do not very good know (this concerns especially children) what is natural and what is invented and we are increasingly inclined to attribute figures, phenomena, and virtual situations the value of reality. As a result, we often behave in the real world and in real situations as if we were in the virtual world, which can have fatal consequences. Surely, in the virtual world, they apply not the laws of nature, but the laws invented by programmers and other creators of fiction. Undoubtedly, with the creation of fictions and illusions we have been dealing for ages. This was connected with mythical and magical thinking, religious beliefs, ideologies, philosophical views, and with literature fantastic science fiction and storytelling. Humans created various fictions and were willing to delude themselves for their real existence and real power. Nevertheless, the impact of fiction on people's consciousness was incomparably smaller than before. And this is mainly due to massive use of computers and the Internet, although a significant part in this work also has a television and mass production of appropriate books and magazines. It is difficult to assess whether earlier was created less fiction than today. However, one thing is certain: the spread of fiction through computer games, comics, commercials, movies, etc., the frequency of their display and viewing, the extraordinary expression of images and the ease access to them are now incomparably greater. More and more, virtual reality leaves his mark on our psyche because of the multiplied influence of the virtual world on our consciousness and subconsciousness.

Human, creating the technique and improving it, simultaneously creates and changes himself to improve and better adapt to a constantly degenerated environment because of technical progress. To some extent, it succeeded. Nevertheless, probably the e-

man has already exceeded his abilities in this work. Since him, a *March to the degradation of human* began that accelerates, and we do not know when and how it will end. Maybe, it is oriented to the self-destruction of humanity.

2. 6. *Homo digitalis*

A new form of the virtual world – the digital world – emerged in the Anthropocen. It is a world that consists of mathematical representations of real objects, processes and phenomena. In the simplest form (in digital representations) numbers represent them, and in complex forms (functional representations) – various mathematical functions. Now it is fashionable to present everything by numbers. Digitized elements of the real world are reflected in readers of different widely available electronic devices, primarily on handhelds ones: laptops, tablets, cell phones, smart watches and other *smart devices* and gadgets. Digitization more and more get into our daily life thanks to the fashionable *Internet of smart things*. This has some good and bad effects. On the one hand – like any intelligent technical device – it makes our life easier, makes it more interesting and comfortable. On the other hand, it contributes to reducing our privacy sphere everywhere it reaches the Internet, as it makes available our personal and intimate data. Even our traditional homes, transformed into *smart homes*, are controlled and viewed by smart Internet devices, which relay the information about us, including to spying and data theft: *Are we at home?*, *What we are doing now?*, *How we rest?* and *Are we sick?* Ubiquitous Computing enables IT corporations, private developers and hobbyists to implant microscopic electronic devices (chips) and to digitize everything in their environment. In addition, thanks to *wearables* and *smart implants* IT can cross the boundaries of our body. Naturally, all these devices can communicate with each other and with people through the network. Social media, especially Twitter and Facebook, have revolutionized method of transmission and circulation of information. They also have bad side because they have opened unprecedented opportunities for social manipulators. Various electronic devices collect and accumulate data about people and offer more information about them than they themselves know about themselves. Institutions and corporations use them supposedly for our good, but in fact, for other purposes: tracking, controlling, advertising and marketing. One promises to people the benefits of the information society, for example, that productivity and quality of life will be better and better, although there is no certainty that they will grow for an indefinite period and that they will be so good as one expects. In contrast, it is certain that the progressive digital revolution poses a threat to the freedom and privacy of the individual⁵.

⁵ Only in 2015, there were as much data as in the history of humankind until 2014; hundreds of thousands of queries are sent to Google every minute, and the same number of

posts on Facebook. They betray our thoughts and feelings. It estimates that over 150 billion cross-linked measuring sensors will be within the *Internet of Things*, i.e. twenty

Automating the society by means of algorithms threatens in the worst case the demolition of democracy by new totalitarian structures, to the control of citizens by means of artificial intelligence. It starts with computer programming, and ends with programming people. The examples of Singapore and China illustrate this well. All rulers and dictators know that privacy is the biggest obstacle to getting full domination over citizens. As long as people have something for themselves, and no one else and even the state cannot interfere in this, so long one cannot them completely enslave. As Günther Anders stated, *In every dictatorship, 'I' becomes the first occupied area*⁶.

The digital world alienates gradually and escapes from the control of human. In consequence, it becomes less predictable and more and more threatens us. Therefore, nine prominent European experts in the field of Big Data, sociology, philosophy and economics draws attention to the threat of automation of society by means of algorithms and artificial intelligence, and warns against the *dictatorship of the data* (see: Helbing, 2016).

In the digital world, a new form of e-man the *Homo digitalis* (digital human) appeared⁷. Integral parts of his activity are digital auxiliary tools and improvers, so that he should be *digitally wise*, that is, he should be able to choose the tools supporting his innate abilities, and use them to make easily the better decisions⁸. However, the decision or the selection can take place only in weakly determined systems, where is the place for freedom and cases. In the meantime, a full-scale digital man is a real robot, governed by algorithms. Thus, functioning in a strongly determined environment by algorithms he is enslaved in the highest degree. He makes choices or decisions dictated to him by some computer program (algorithm) imposed on him, that is, he does what he has to do in a given situation. His decisions do not depend on whether he thinks and what he thinks in decision-making.

The evolution of a machine-like man, initiated by the first industrial revolution, aims to the shaping the digital man, which will be probably his most advanced form. So far, the process of shaping the digital man progresses faster and faster. Bodily and mental functions, psyche, personality and spirituality as

well as behavior, attitudes, emotions and interpersonal relationships increasingly digitize. Transformation of *Homo naturalis* into *Homo digitalis* – the effect of technomorphization of human – implies at least such negative effects:

- People in their mad rush for career, profits and get rich, impose a murderous pace on his life and work. They do this also for fear of IT and economic social exclusion. One cannot stand out of the average standard of wealth nor to be behind others due to the ability to use the latest information technologies. This is the consequence of chase for the fastest technical devices no matter what the consequences are.
- Biological degradation of the human species is a result of building machines more and more similar to humans (The latest achievement in this field is the humanoid *Softia* built in 2016 by David Hanson, owner of the famous American company Hanson Robotics, who not only looks but also behaves like a human). Gradual transmission to the machines our species features is one of the causes of dehumanization the humanity. The more we lose our important features and functions, the less of human features remains in us, the less human we are.
- A machine-like person behaves like a machine – thoughtlessly and unreflectively:
 - He refers without emotion to other people, but with calculation.
 - Usually his rationality reduces itself to *cold* calculation.
 - In thinking, he uses standard algorithms and stereotypes.

As a result, he degrades his spiritual and emotional sphere. He not only disturbs the balance between the physical, mental and spiritual sphere, but he causes negative phenomena, which are known psychologists, that contribute to the degradation of personality.

- Technomorphization of the human being has a negative impact on decision-making. A man acting like a machine usually makes

times more than today's population of the world. Then every 12 hours will double the number of data. Even today, many organizations are struggling to convert these Big Data into Big Money.

⁶ I quote from H. Welzer (Welzer, 2016).

⁷ The term *digital human* can mean either an artificial person (a fully automatic robot or the imitation of a natural human like in the movie *Digital Man*) or a person reduced to the zero-one system, which operates in the digital world full of *intelligent* devices.

⁸ There are yet other definitions of the *digital wisdom*. 1) *Digitally wise* man is not only in the Internet, but in the real world: it is a man who thanks to his experience and knowledge knows how to use hardware and software. (Toczyński, 2017, p. 106). 2) Digital wisdom does not automatically have those who quickly adapt and always know everything about technology, its possibilities and ways of functioning, but those who have an idea of how to deal with network technology, to become truly wise, rather than get lost in flood data. Digital wisdom means choosing what is good. (see: Muntzschick, 2016) .

decisions automatically, regardless of feelings and empathy or future consequences. In general, he willingly entrusts the machines with making decisions for them⁹.

- A machine-like man reduces the sphere of his own will and freedom. As a result, he becomes increasingly passive and vulnerable to manipulation and enslavement.
- In times of Big Data, every person acting in cyberspace leaves digital traces or shadows, because it generates the data (including personal ones) that goes to databases and the Internet cloud. In this way, he creates his image and his digital identity (e-identity). They become a kind of commodity, willingly being acquired by fraudsters or different organizations involved in spying (see: Prajznar, 2017).

Digital people, which have to do daily with different electronic devices, entangle in multiple Internet networks, from which it is difficult to release them, because they become addicted to them, like from drugs. Consequently they surrender their power, become their hostages and slaves. That is why Aleksandr Nikishin rightly claims: *The latest intelligent technologies, exercising control over people, threaten the transformation of society into a digital concentration camp* (Nikishin, 2017). Thus, digital slavery develops in digital civilization. It is the most recent and the most formidable form of neo-slavery in the neo-liberalism.

A few days ago, the media reported that on November 13, 2017 a revolutionary change in the world began, as a consequence of the US government's authorization to use the world's first digital pill. For the time being, a microscopic sensor is introduced into the pill, which informs the doctor when a patient has taken it. Later, one will add more sensors to examine parameters and states of the body. This will lead to the digitization of measurements of various body parameters and the digitization of medical diagnosis and therapy through artificial intelligence as well as a drastic change in the understanding of health. Penetration of digitization into the interior of human is very promising and terrifying. It is a mixture of fascination and fear of cyborg – the hybrid of man and machine. (see: Lobo, 2017). One perceives such a bionic-man as a being that transcends human bodily limitation, exotic, strange and unusual. In the 60 of

last century, one talked about the extension of man because of robotization, now about intrusion of man thanks to nanobots and digitization. First, the technique attacks with all power the entire surface of the human body and then it penetrates them deeper. Probably in about ten years, most rich people in industrialized countries will already have contact with cyborgs or become them. All nanobots in the bodies of individuals will be connected by means of computer networks (the Internet). Thus, networking and digitization should be embodied.

Ray Kurzweil (famous American inventor, Technical Director at Google) precisely predicts that in the 30s of the current century, computers will battle human intelligence and they defeat them, and humans in their brains will have nanobots of biological cells size linked to the global Internet. This will allow them to download skills (in Matrix style) and edit the genes for therapeutic purposes. Initially, it will be available to the rich, and soon for the masses, as was the case with cell phones. Nanobots in our brains will also create new bodily senses for which new art and rituals will be created. They do not threaten privacy, because everyone will be able to encrypt it individually and encryption always precedes decryption. (see: Pagliery, 2016). Nevertheless, accelerated digitization of the body hides many consequences that are difficult to predict and to evaluate on our today's knowledge. It is unknown what opportunities for the manipulation of human thoughts and feelings will create a connection their brains in the global network, what theoretical and practical problems can arise from the granting of human rights to robots and of the treatment of them as *electronic persons*¹⁰.

2. 7. *Homo ecologicus*

Human like any organism lives thanks to the environment and for this reason should live in harmony with it. Therefore, self-evidently and by his nature, he should be an *ecological man*. By this concept, I understand a man who is friendly not only to his natural but also social environment, i.e. a man who respects the laws and norms that apply in the natural and social world. First of all, he refers friendly to everything that does not threaten him. In his life, he is guided by the eight principles proclaimed by philosophical environmentalism (Sztumski, 1997):

slowly and consequently they lead to failure. 2) Often, automated expert systems make diagnoses based on patient data and propose appropriate therapy at the same time. But atypical combinations of symptoms can lead to abnormal treatment; An ordinary doctor cannot be replaced simply by a computer (see: Carr, 2014).

¹⁰ See: *Entschließung des Europäischen Parlaments vom 16. Februar 2017 mit Empfehlungen an die Kommission zu zivilrechtlichen Regelungen im Bereich Robotik* (2015/2103(INL)).

⁹ Nicholas Carr writes about the risk of automating decision-making. In his book *Addicts. Where is the man when the computers decide* he gives numerous negative effects of computer-aided automation. I only give two examples: 1) At the beginning of 2013, the US Federal Aviation Administration ordered aircraft captains to operate as manually as possible and not fall back on autopilot. The reason for this was the crash on long-haul flights, during which misleading alarms pulled out of half-dream pilots, who instead of hitting on the gas add up the plane flying too

I. The principle of the isomorphic world

Nothing in the world is valuable in itself. Only people value the components of the world, and they consider their own species as the privileged and the most important. It is the people, who created the idea of anthropocentrism, and according to it, they are guided by species selfishness. Hence, it appears the desire to rule over other species of living beings and other people, if they are considered enemies, even at the cost of their extermination. Ecological man should respect and value other species of living beings.

II. The principle of structural determinism

The existence of people depends on the one hand on the structure of the environment, in which they live, and on the other hand, people shape this structure more and more proportionally to the progress of knowledge and technology. In result of that, the natural structure becomes more and more artificial. Therefore, the concept of natural environment, i.e. the environment unpolluted by human activity, loses its sense. It transforms quickly in the artifact of environment (see: Sztumski, 2006). The ecological man should oppose excessive artificiality.

III. The principle of biocentrism

Life in biological aspect of each creature, especially of human, is considered a universal and the highest value. The source of reverence of life is the survival instinct of all living beings. The ecological man should take care for the life of other beings, and above all, for his own life.

IV. The principle of non-antagonistic development

Social evolution occurs as a result of the rise of contradictions and conflicts. However, in general, they do not transform themselves into antagonisms. Fueling hostility and exacerbating contradictions between the components of nature and of society is the work of people which refer with hostility to their environment. Antagonizing people's attitudes and interpersonal relations leads to a critical moment in social evolution, and its transgression threatens the premature destruction of humanity. The duration of our species can be prolonged, if social antagonisms are eliminated in time. Ecological man should not antagonize conflicts and social contradictions and he ought to prevent aggression.

V. The principle of peaceful coexistence

People cannot be without themselves or without other living beings, which help them survive. Therefore, a condition of life and survival is a peaceful co-

existence within a given ecosystem and community. Ecological man should care for good interpersonal relations.

VI. The principle of cooperation

Achieving collective and individual goals, and above all the most important ones, such as the longest survival of individuals and humanity, requires common efforts to achieve these goals. Consequently, people's goals should not be contradictory, and their actions should support each other. This ensures the most effective and harmonious cooperation. Ecological man should agree his goals with the goals of other people and implement them in a joint action.

VII. The principle of tolerance and compromise

Mutual respect, tolerance and willingness to seek compromises for potential social conflicts are a necessary condition for peaceful co-existence way of thinking, which I call *ecological thinking*. It rejects the Cartesian paradigm of rationalism, binarism and the Enlightenment paradigm of scientism. Present algorithmic or calculated thinking, derived from *pure reason*, constitutes an obstacle in shaping correct social relationships and in the realization of the postulates that the ecological man has to follow. Less and less, one recognizes it neither as an authoritative and reliable way of thinking in cognition and behavior, nor as only credible and authoritative criterion of sources of information (knowledge) and as the foundation of morality. Common sense, which consists of scientific and extra-scientific knowledge, rationality, feelings, faith, life experience, and subjective way of experiencing the world, becomes more important than *pure reason*. The ecological way of thinking is eccentric (it goes out from human and embraces ever wider spatial horizons of his environment), concentric (finally, it focuses on human and on what enables him to live on Earth), prospective (it concerns for the future of individual and humanity), and evaluative (attitudes, behavior and human acts are evaluated due to the harmonious unity of man with his environment, and good is what serves the life and survival of the humankind).

Ecological man acknowledges the principles of ecohumanism created to serve the people, communities, and human species, and not to something else: abstract beings (gods), ideas, rules, etc. It bases on the idea of non-antagonistic social development, reverence for life, synergies of human activities, and tolerance. In ecohumanism, it applies the life principle *Homo homini homo est* (*Human for human is a human*). It differs from other contemporary concepts of humanism, in which the principle *Homo homini lupus est* (*Human for human is a wolf*) applies, operating under conditions of fierce competition, or the principle *Homo homini deus est* (*Human for human*

is a god) applied in the conditions of worship of idols, celebrities, etc.

3. Final remark

It is highly probably that in the near future a new human model will emerge and develop – *Homo sustinens* – thanks to the implementation of trendy concept of sustainable development. In principle, he does not differ too much from the ecological man whose model had previously formed and now is already *in statu crescendi*. Both differ only in that the ecological human is mostly oriented towards shaping correct relationships with his environment and protecting the environment, whereas the sustainable human focuses more on restoring or maintaining balance in his environment and on the care for it. Nevertheless, they have many same characteristics, because the sustainable human seems to be the higher developed form of ecological human.

Sustainable human will care for the durable development of many different spheres of social activities, not just of the economy. Certainly, he will counteract to the tendencies of humankind's development outlined by human beings like *Homo oeconomicus*, *Homo consumens*, *Homo frugus* or *Homo digitalis*. It is extremely difficult to deal with these models because they are more competitive and attractive than the *Homo sustinens* model. In addition, it is unknown whether its actions will prove effective in the current and future capitalist system and in such a concept of sustainable development as now, because this concept seems to be like some utopia. (see: Sztumski, 2009). At present time, sustainable development does not eliminate social contradictions on a global scale. At the most, it tries only to alleviate them by looking for some golden mean. In the case of social contradictions, it is about balancing the opposing interests of social groups, i.e. to respect the interests of each group within reasonable limits, taking into account the real possibilities of satisfying them. However, it reminds Sisyphian work.

It is impossible to realize the concept of sustainable development on a global scale. One can implement it rather in local areas – in the villages, cities, and countries. The smaller they are, the greater chance is for its implementation. It will be so, until some global government emerges. From today's point of view, this is very unlikely. The concept of sustainable development does not eliminate the most important and ever-increasing social inequalities, such as between the rich and the poor, between capital and labor or between employers and employees. It also does not eliminate the robbery economy as long as it is evaluated primarily on the basis of economic criteria (profitability or profit maximization), and its driving force is an accelerated increase in consumption, which forces overproduction of goods, increasing consumption of natural resources and waste of energy and materials.

The task of sustainable man is to carry for the balance between different elements or subsystems of the social reality. This is because the equilibrium is a necessary condition for stable economic growth and civilization progress. We know not whether he will be able to accomplish this task for at least two reasons. The first obstacle is the model of economy, built on maximizing of profit, productivity and profitability. Other important obstacles are various models of humans that can emerge in future phases of development of the capitalist formation. The necessary condition for overcoming them is a sufficiently high awareness of the masses about environmental protection and the slowdown of absurd economic growth (over real and current needs), which generates many negative consequences. Unfortunately, transformation of consciousness is always a difficult problem due to its immense inertia and to the impact of backward and conservative ideologies and traditional value systems. Therefore, it is questionable to believe in the possibility of effectively opposing the tendency to increase the imbalance of social systems by *Homo sustinens* in the near future.

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