

# Homo Economicus in Futures Studies

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*This paper considers Homo economicus as perfect rationality as well as how the concept of Homo economicus in the sense of perfect rationality is important for futures studies, in particular for predicting a future human image. The author considers the main characteristics of Homo economicus, which are important for futures studies, as well as the concept of future human image and the conception of future human image in futures studies. The research results show that Homo economicus as perfect rationality takes an important place in the futures studies and the conceptions of future human image. It is through its use, future studies are transferred from science fiction to the level of scientific predictions of the future of humanity. Use of Homo economicus as perfect rationality allows the conceptions of future human image to reach the level of scientific prediction; to develop an average ideal image in various scientific disciplines, the achievement of which is directed to technology efforts, as well as personal aspirations.*

*Keywords: Homo economicus, futures studies, future human image, game theory, perfect rationality, science fiction*

## Introduction

This article considers Homo economicus in the sense of perfect rationality, which is commonly used in the field of game theory. Despite the fact that the term “economic man” was used for the first time in the late nineteenth century,<sup>1</sup> the meanings that are embedded in the game theory have a much longer history. We believe that the origin of perfect rationality begins with Aristotle’s works, who, “in fact, was the first to develop in his work a particular sense of historical consciousness” [Afonasin, 2017; Brisson, 2017].

The monograph “Ulysses and the Sirens: Studies in Rationality and Irrationality” edited by Jon Elster which has already become a classic, composed of studies in a descending sequence of perfect rationality, through imperfect and problematical rationality, to irrationality. Specifically, human rationality is characterized by its capacity to relate strategically to the future, in contrast to the myopic “gradient climbing” of natural selection [Ulysses and the Sirens, 1984].

This article also considers: how the concept of Homo economicus in the sense of perfect rationality is important for futures studies, by creating of the conceptions future human image.

Futures studies we considered as a branch of the social sciences and parallel to the field of history. Futures studies are an interdisciplinary research of past and present, the results of

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<sup>1</sup> For example, in the 19<sup>th</sup> century John Stuart Mill wrote about Homo economicus: “It is concerned with him [man] solely as a being who desires to possess wealth, and who is capable of judging of the comparative efficacy of means for obtaining that end.... It makes entire abstraction of every other human passion or motive; except those which may be regarded as perpetually antagonizing principles to the desire of wealth, namely, aversion to labour, and desire of the present enjoyment of costly indulgences” [Mill, 1844: 321].

which allow us to determine the likelihood of future events and trends. The main works devoted to the research of the future emerged at the turn of the 20<sup>th</sup> century. The founder of the future studies was Herbert Wells. His science fiction works include *The Time Machine* (1895), *The Invisible Man* (1897), *The War of the Worlds* (1898), *The Fortnightly Review* (1901), etc., and the philosophical lecture “*The Discovery of the Future*” (1902), laid the foundation for further discussion of professional strategies and opinions with respect to tomorrow.

### **The main characteristics of Homo economicus**

We will consider the characteristics of Homo economicus that are important for futures studies.

In the article “Homo Economicus as the Basis of “Asgardia” Nation State in Space: Perspective of Educational Technologies”, we studied new interpretation in the concept of Homo economicus [Oleksenko & Fedorova, 2017]. In modern economic theories and game theory, Homo economicus is considered as consistently rational and narrowly self-interested agents who usually pursue their subjectively-defined ends optimally. Generally, Homo economicus attempts to maximize utility as a consumer and profit as a producer. “Homo economicus is unwaveringly rational, completely selfish, and can effortlessly solve even the most difficult optimization problems” [Levitt & List, 2008: 909].

The basis for the modern interpretation of Homo economicus was formed in the paper “In Defense of Economic Man: Towards an Integration of Economics and Psychology” by Wolfgang Stroebe (Professor of Psychology) and Bruno S. Frey (Professor of Economics). Analyzing previous interpretation of Homo economicus in economic sciences, the authors came to an understanding that consideration of Homo economicus outside of psychology and its achievements in modern realities is incorrect. The main idea of the paper is “psychological man” who is a close relative of “Homo economicus” [Stroebe & Frey, 1980: 120].

Considering modern interpretation of Homo economicus, Thaler comes to an important conclusion that the models of quasi-rational emotional humans and the interpretation of Homo economicus changes significantly due to the fact that the models of rational, unemotional agents, within the boundaries of which Homo economicus is traditionally considered, move to a more complex level [Thaler, 2000]. It is important for our study. In turn, Denys Svyrydenko talks about complex changes of anthropological nature, which was initiated by the “mobility turn” in the life of modern society: “Contemporary society lives at “the coordinates” of mobility and modern individual needs to transform one’s own everyday practices to stay at the advance-guard of the social development, to perform successful carrier steps etc... According to “mobility turn” at the modern humanities and social sciences, mobility starts being comprehended as part of individual, information, idea, value attribute” [Svyrydenko, 2016: 103]. We think that it is necessary to take this trend into account when we consider the image of Homo economicus in modern education.

We can cite the scientific study by Daniel Kahneman (the 2002 Nobel Memorial Prize in Economic Sciences) and Amos Tversky [Choices, 2000] as an example of new interpretations of Homo economicus from the field of cognitive psychology. In this study, the authors discuss the cognitive and the psychophysical determinants of choice in risky and riskless contexts. Furthermore, they propose prospect theory. Extensions and applications to diverse economic phenomena and studies of consumer behavior are discussed [Choices, 2000]. In the article “Homo economicus Evolves,” the well-known American economists Steven Levitt and John A. List write: “We view the most recent surge in behavioral economics as adding fruitful insights — it makes sense to pay attention to good psychology. At the very least, psychological

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insights induce new ways to conceptualize problems and provide interesting avenues of research. In their finest form, such insights provide a deeper means to describe and even shape behaviors” [Levitt & List, 2008: 910]. An impossible consideration of Homo economicus outside of psychology and its achievements in modern realities is proved in the same article by Steven Levitt and John A. List: “One important practical example involves savings decisions, where it has been shown that decision-makers have a strong tendency to adhere to whatever plan is presented to them as the default option, regardless of its characteristics” [Levitt & List, 2008: 910].

Thus, in the modern concepts, Homo economicus is endowed with a particular set of characteristics, the most important of which we considered above, as well as in our earlier works [Oleksenko, 2013; Oleksenko & Fedorova, 2017]. They reveal the main quality of Homo economicus — a focus on rationalism, pragmatism and increased practicality of behavior. Homo economicus is increasingly presented as a model of human behavior, which is based, on real neurobiological and mental processes. That is, Homo economicus becomes more like a man with highly developed consciousness, whose behavior is dominated by perfect rationality. It is this idea of Homo economicus that we use as the basis for our further reasoning.

### **Modern futures studies. The concept of future human image and the conceptions of future human image**

Modern futures studies are presented in many interdisciplinary scientific studies, as well as science fiction. Since the second half of the 20<sup>th</sup> century, in futures studies, three main areas can be identified: a) the ideas of national economic and political planning; b) systems analysis, especially with regard to quartermastering the war-effort; c) the effect technology on global trends as time progressed (global problematique): discussions on the intersection of population growth, resource availability and use, economic growth, quality of life, and environmental sustainability (the Club of Rome). Among the books, which due to futures studies became a recognizable scientific discipline, we want to highlight the works of Wendell Bell [Bell, 2003; Bell, 2004]; Richard A. Slaughter [Slaughter, 2004]; etc.

Since the dawn of the 21<sup>st</sup> century, virtually all scientific disciplines have been involved in futures studies: from neuroscience to cosmology. For example, in the book “The Emotion Machine: Commonsense Thinking, Artificial Intelligence, and the Future of the Human Mind,” Marvin Minsky proposes a new model for how our minds work. Considering the possibilities of his model, Minsky comes to the conclusion that the human brain can build machines — artificial intelligences — that not only can assist with our thinking by thinking as we do but have the potential to be as conscious as we are [Minsky, 2007].

In the book “Beyond Learning: Democratic Education for a Human Future” by Gert J. J. Biesta, the possibilities of educational practices forming the Human Future are explored, as well as education is conceived as the production of particular subjectivities and identities such as the rational person, the autonomous individual, or the democratic citizen [Biesta, 2006].

In the article “Anthropological Aspect of the Nature of the State,” the authors Volodymyr Khmil and Tetyana Khmil have aimed to find new ways and methods to substantiate ethic and moral standards as the basis of civil interference into the life of the state. Using the methodology of comparative, historical and logical methods, the authors have created the concept to broaden the representation of freedom evolution of a human in different historical types of states [Khmil & Khmil, 2015; Khmil, 2016].

In large-scale interdisciplinary futures studies, we want to single out and consider one aspect. We drew attention to the fact that most futures studies are aimed at forming a certain

future image, and even more specifically — future human image. The phrase “future human image” is rarely found in the English-speaking world, just like the term “futurology,” which goes out of use in the academic field’s at least in the English-speaking world. However, in the Russian and Ukrainian scientific literature, both these concepts not only continue to be widely used but also actively develop, enriching themselves by new meanings.

In 2014, in Ukraine, the academic journal *Future Human Image* ISSN 2519-2604 (Online), ISSN 2311-8822 (Print) [Future Human Image, 2017] was founded. The main aim, which is pursued by Oleg Bazaluk and Denys Svyrydenko (the editor-in-chief of the journal and deputy editor-in-chief), and editorial board, consists in the consideration and generalization of the most effective methods of impact on mentality of the rising generations with the possibility of their further use when forming a future human image. It is necessary to understand the two principal components for efficient operation of any educational system [Future Human Image, 2017]:

1. The vision of the aim of the educational impact that is some ideal image, to achieve it using the full potential of the educational system.

2. Knowledge and usage of the methods that allow achieving the aims.

That is, any educational system needs to foreknow whom and how to educate in the rising generations.

The journal publishes the research in the field of philosophy, psychology and education, in which the authors present their vision of future human image. For example, Oleg Bazaluk connects his idea of the future of man with space exploration [Bazaluk, 2014; Matusevych & Bazaluk, 2015]. According to his terminology, the planetary cosmic personality as future human image is formed by neuro-programming technologies, including educational technologies [Bazaluk, 2014; Bazaluk, 2017]. Oksana Petinova considers the features of the modeling method in the context of the methodology of the new economic man study. The author concludes that the subject area of the total review of the traditional model of economic man and designing new models in the framework of theoretical and empirical contexts involves interrelated economic, ideological, socio-cultural, psychological, spiritual, political, ethical segments that require philosophical comprehension. [Petinova, 2014: 89]. Astronaut Sergey Krichevsky considers the possibilities of creation of cosmic humanity [Krichevsky, 2017]; Brazilian researchers Javier Ruano, Dante Galeffi, and Roberto Ponczek have studied a new transdemocratic horizon in the global citizenship education proposed by UNESCO for the Post-2015 Sustainable Development Agenda [Ruano et al., 2014]; Clava Brodsky has predicted perils of the future [Brodsky, 2014]; etc.

In the research “Homo Economicus as the Basis of “Asgardia” Nation State in Space: Perspective of Educational Technologies,” we tried to prove that “...new interpretations of Homo economicus not only radically change its interpretation, but also indicate the direction of further transformation of the concept and scope of application. Homo economicus reaches new levels of interpretation if we project it onto the future human image. These levels of interpretation are a creation of “Asgardia” nation state in space” [Oleksenko & Fedorova, 2017: 116]. We presented Homo economicus as a cultural ideal that may lead to the creation of “Asgardia” nation state in space. We assumed that “In Asgardia, Homo economicus will become the fundamental unit of the new nation, which will embody the harmony of rational and ideal beginning” [Oleksenko & Fedorova, 2017: 117].

Over the past years, the journal has published the concepts of future human image, which are based on the studies of economists, sociologists, psychologists, cosmologists, etc. It is through these studies, the term “future human image” has acquired new meanings, which, in turn, open up new human development opportunities [Future Human Image, 2017].

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## Perfect rationality as a distinguishing feature of scientific futures studies

The analysis of futures studies literature, and especially the analysis of articles in which different future human image concepts are presented, led us to conclude that Homo economicus studies are relevant in the sense of perfect rationality. For example, in the article “In Search of Homo Economicus: Behavioral Experiments in 15 Small-Scale Societies,” using the achievements of cognitive psychology, the authors have achieved considerably more behavioral variability across groups than had been found in previous cross-cultural research, and the canonical model fails in a wider variety of ways than in previous experiments [Henrich et al, 2001].

Using future human image models of rational human behavior in the concepts, based on neurobiological and psychological research, the authors of these concepts involuntarily turn to the models of Homo economicus in the sense of perfect rationality. Without turning to perfect rationality, their concepts lose their scientific status and applied to the field of science fiction.

The usage of the models of Homo economicus in the sense of perfect rationality allows the authors of future human image concepts to transfer from science fiction to scientific forecasting, such as in the field of game theory. It turns out that on the one hand, the models of Homo economicus “become human.” Namely, Homo economicus as a concept begins to be used not only in statistical economic theories but also in dynamic, i.e. it gets more close to reality. It was seen that Homo economicus has the cognitive and the psychophysical determinants of choice in risky and riskless contexts (in the understanding of Daniel Kahneman and Amos Tversky [Choices, 2000]). On the other hand, the use of Homo economicus in the sense of perfect rationality in the concepts of future human image allows to make a more effective ideal image, which in the near or far future will be embodied in reality. The possibility to predict the ideal image, as educational technology goals, will lead to many important consequences. For example, the use of future human image in the education system: a) improves the effectiveness of educational technologies; b) ensures consistency in society’s development; c) ensures reliability of the transfers of cultural ideals and values from one generation to the other; etc.

The use of the features of the Homo economicus in the sense of perfect rationality in the concepts of future human image brings them closer to the scientific forecasting of the future and allows more efficient use in psychology, sociology, political science, education and other sciences. In the concepts of future human image, the understanding of Homo economicus in the sense of perfect rationality comes from the field of game theory, and is effectively used in interdisciplinary modeling reality. Future human image is presented as an average ideal image, the achievement of which is directed to technology efforts, as well as personal aspirations.

## Conclusion

Thus, having considered Homo economicus in the sense of perfect rationality, as well as the features of futures studies, we concluded that the use of the characteristics of Homo economicus in the sense of perfect rationality in future human image concepts brings these concepts closer to the scientific forecasting of the future. This allows more efficient use in different scientific disciplines, as an average ideal image, the achievement of which is directed to technology efforts, as well as personal aspirations.

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