

14. Yudin B.G. Chelovek kak ob"yekt tekhnologicheskikh vozdeystviy / Boris Grigor'yevich Yudin // Chelovek. – 2011. – №3. – S. 5-20.
15. Anderson J. Neuro-Prosthetics, the Extended Mind and Respect for Persons with Disability / M. Duwell, Chr. Rehmann-Sutter and D. Mieth. // The Contingent Nature of Life: Bioethics and Limits of Human Existence Heidelberg: Springer, 2008. P. 259.
16. MacDonald Glenn L When Pigs Fly? Legal and Ethical Issues in Transgenics and the Creation of Chimeras // The Physiologist, 2003. Vol 46 №5. October. P. 251.
17. Stock G. Redesigning Human. Choosing our Genes, Changing our Future. Mariner Books. Boston, N.Y., 2003. P. 14.

### АННОТАЦИЯ

**П.А. Василега, Наумкина Е.А. Биоэтические аспекты использования генных технологий.**

*Ускоренное развитие биотехнологий порождает комплексные вопросы на пересечении методологических и этических аспектов медицины, биотехнологий и философии. Их содержание определяется постоянно возрастающей ролью биоэтики как науки. Этические проблемы расширенного развития биотехнологий с необходимостью становятся предметом исследования философов, биологов и историков науки. Биоэтика призвана искать ответы на этические вопросы, которые возникают вследствие использования этих технологий в медицине, биологических исследованиях. В статье раскрываются биоэтические, философские и междисциплинарные аспекты развития и использования генных.*

**Ключевые слова:** биоэтика, опасные знания, молекулярные технологии, генетическая инженерия, здоровье человека, междисциплинарность, генные технологии.

### SUMMARY

**Vasyleha P.A., Naumkina O.A. Bioethical aspects of the use of genetic technologies.**

*Accelerated development of biotechnology raises complex issues at the intersection of methodological and ethical aspects of medicine, biotechnology and philosophy. Their content constantly and dramatically stipulates the role of bioethics as a science. Bioethical issues very relevant in the context of socio-humanitarian and philosophical studies. Bioethics aims to seek answers on ethical issues that are related to medicine, biology and technologies connected with them. The article widely discussed bioethical, philosophical and interdisciplinary aspects of gene technology.*

**Key-words:** bioethics, dangerous knowledge, molecular technologies, genetic engineering, human health, interdisciplinary, gene technologies.

Sumy Makarenko state  
pedagogical university

## WORLD OUTLOOK PROBLEMS OF TRANSHUMANISM IDEAS

*The article is sanctified to the world-view aspects of transhumanism. The special attention in the article is spared to the problem of the use of high-tech and native breaking of ontological and world-view bases of human life. Considerable attention is spared to the problem of development of information technologies and cognitive sciences.*

**Keywords:** *transhumanism, world view, anthropic, neurointerface, supermind, cognitive sciences.*

Development of sciences and technologies in the modern world accepts especially intensive character. Entering into the epoch of wide scale and far going technological innovations humanity can cardinaly change not only an environment but also social and nature properties of man. Development of informatively-communication technologies already today change the folded social and interpersonality relations, and the boom of nanotechnologies threatens the serious changes of economic bases of vital functions of civilization.

More growing influence of technologies requires the comprehension of many processes. The changes brought in modern society by technological progress are able already in a visible prospect to purchase a decision value for the further evolution of human society, existence of humanity, his world-view.

Issue of the day of present tense: to educe influence of high-tech on anthropic, it today comes into question within the framework of world philosophical-view discourse about self-identification of man.

Main reason of present actualization of this discourse consists of that caring about the coming fate of man, that is carried out by a creator and user of base technologies of the XXI century, cardinaly differs from the that caring, the man of middle ages carried out. Most consistently new strategy of caring about life of man is presented in «*transhumanism*».

In the second half of the last century there was a new flow in a western philosophical idea - *transhumanism*, that cardinaly changes our idea about a man and his possibilities. *Transhumanism is intellectual and cultural motion, supporting the use of new sciences and technologies for the increase of cognitive and physical possibilities of man* [3].

Transhumanists reject main metaphysical prejudice characteristic for the followers of ethic tradition from Plato to Sheler. In classic philosophy anthropic is determined as an evolution of life of man is in all his totality.

Anthropic, in understanding of transhumanists, is not an absolute ontological constant (created by God, Nature or yet some Absolute). Anthropic is this greatest work of art of man. For this reason, all task of caring about the man of transhumanists are consider the protection of human rights at his own discretion to perfect this greatest work of art. The Ethic and ontological imperative of *transhumanism* says of: not to can life of anthropic in plenitude all her present limited, pathologies and damage, and to improve this life, using all power of technologies of the XXI century [2, 130].

To improve ontological position of anthropic in the world – means to expose to him such transformations, that increase possibilities of separate people consciously to change the genome, body, neurosystem, life in accordance with the informed desires. Change also and fundamental ideas about nature and society.

A word «consciously» here means: the users of high-tech technologies must as possible deeper understand, between what variants of vital position in they choose the world. Deepening of such understanding is assisted by such factors, as: molecular nanotechnology, gene engineering, nanomedicine, artificial intelligence, medicine for the change of mood, therapy against aging, neurointerface, programs for a management by informative co-operations, medications for the improvement of memory, implanted superchips, cognitive technologies.

Certainly, today the process of transformation of people in post-people is very distant from the finale. Therefore, present prognoses about his of long duration evolution in a great deal yet look as world view speculations.

Discussion on a question about moral justified by nothing the not limited use of all facilities of overcoming of nature of man mentioned above, thus, split the association of humanitaries of XXI century on two camps – humanists and transhumanists. The first require categorically to block the action of the factors listed above, impose a taboo on what that was not intruding in fundamental principles of human nature.

Unlike them, transhumanists consider that free personality has a complete right to interfere in nature. In their opinion, there must not be moral or ethic taboos, forbidding personalities at her own discretion to change the nature. They see nothing reprehensible neither in the will to live as possible longer personality nor in her natural aspiration to do, study and outlive more than it maybe now for ordinary human life. Personality, in understanding of transhumanists, has a right to mature and develop much longer, than those pitiful eighty years that is released to her by the evolutionary past.

Not applying on exhaustively complete and absolutely reliable knowledge about that means to be a post-man, transhumanists caution us, that matter, the acts of aspiration of post-people can appear to our present understanding so inaccessible, as well as to primacies is understanding of complication of our human life. For this reason, they consider, many of us today it is extraordinarily difficult to

understand the acts of volunteers implanting various neuro-computing chips in the organism, or persons renouncing an own body and ready to live as informative structures in giant ultrafast computer networks [6, 24].

Looking over is also necessary nature of man. It takes place not first time in history of humanity. To it attitude changed alike character toward separate cohorts: to the women, children, other races, followers of different religions and so on. Some classes of people both plugged in a concept man or eliminated from him. In a 20th century in some countries a question got up about the moment of origin of human life in connection with development of technology of abortion. As far as alteration of man a question about the borders of «humaneness» will get up yet not once [1, 29].

Relatively simply this question decides then, when we improve being presently nature of man (medicine, prosthetics, glasses, etc.). Folded historically, that the high bound of «humaneness» was not present. It is possible that because of unactuality of her to the last time, small attention spared the theme of determination of borders of «humaneness».

Some more difficult matter is with transforming, modification of man. If does a man acquire something consciously, before to the people not peculiar (prosthetic appliances) and renounces peculiar (organs) is it possible to talk about the «loss of humaneness»? The only reasonable decision of similar questions is a conclusion that a «man» – it just a comfortable mark that we thought of for the usual to us world [4, 75].

Already presently living creatures are created «artificially»: by means of the gene engineering. A that day is undistant, when will become possible to create difficult living creatures (in case by means of nanotechnologies) from the separate elements of molecular sizes. Besides expansion of borders of human work it inevitably will mean transformation of our ideas about birth and death [8, 87].

One of consequences of such possibilities distribution of «informative» interpretation of life will become, when a basic value is presented by a not material object (in case living creature) as such, and information about him. It will result in realization of scenarios of the so-called «digital immortality»: renewals of living reasonable creatures on the saved information about them. Development of cognitive science and information technologies, in particular, technologies of artificial intelligence will show also, that the reasonable systems work on the basis of simple rules. The difficult enough system of simple rules can not only make impression reasonable (at an estimation on behavior) but also be reasonable, so, as far as about it in general it maybe to judge.

And as though it did not want to some to revive the idea of some ideal essences (life, reason and so on), some convincing grounds for this purpose not evidently. And it is possible that living – it simply very difficult lifeless, and reasonable – simply very difficult unreasonable.

By the example of the arbitrary taking of objects to the class reasonable there are arguments that a «machine» (computer, artificial intelligence) cannot think. Arguments, based on that human reason possesses some unique quality it is difficult to refute today, when operating artificial intelligence is not, but as far as his development and, in particular, his gradual confluence with human reason, these arguments will lose the force.

Development of modern technologies can result in appearance of supermind. Under supermind any reason considerably excelling the best minds of humanity practically in all areas is understood, including scientific researches, worldly wisdom and social skills.

Sometimes the weak distinguish and strong supermind. Weak supermind – it that will turn out, if it was possible to start a human brain with megascopic speed, maybe, by means of loading of human consciousness in a computer. Strong supermind is mind, that not only quicker, than human brain, but also quality excels him. Not important, as far as you will accelerate the brain of dog, he not to have a look in with a human brain. Some suppose that analogical character can be strong supermind to that not a single human brain will not be able to be compared, whatever speed he worked with. Many (though not all) transhumanists is sure that supermind will be created in the first half of this century. For this purpose two things will be required: vehicle and programmatic providing [2, 132-134].

In respect of question about software, progress in calculable neurology will give to us understanding of calculable architecture of human brain and principles of educating used by him. Then we will be able to realize the same algorithms on a computer. Using neural networks, we will be able to avoid the necessity of programming of supermind: it will be enough to give to him to study on the experience the same as it does human child. It is also possible to use genetic algorithms and classic methods of artificial intelligence, to create supermind that can have no likeness with a human brain [10, 164].

Appearance of supermind inevitably will inflict a serious blow to any anthropocentric world-view. A human kind will no longer be the most reasonable form of life in the part of Universe known to us. But much more important practical consequences. Creation of supermind will become the last invention that people will require to do, as supermind will be able to look after further scientific and technical progress much more effective, than it people will be able to do.

The prospect of appearance of super puts many serious questions above that it is time to be in earnest thoughtful already now, to actual appearance of super. A main question consists in that, what it is possible to undertake in an order to maximize the chances of appearance of supermind that will not cause to the people of harm, and vice versa, will help. In an order to find an answer for this question, much more wide knowledge, than those that is possessed by researchers in area of artificial intelligence, are needed. Neurologists, economists, cognitologists, computer specialists, philosophers, sociologists, science fictions, specialists on

military strategy, politicians, legislators and many other will have to unite the knowledge, to manage with that can appear the most important task from those, that some time got up before humanity.

So ambiguous is a question, what in the future will name nature. Idea about a man as small, weak creature in the large, hostile and dangerous world inevitably changes as a man gets all greater control above the world. With development of nanotechnologies humanity potentially can take under control any processes on a planet. That will be here is «nature», where will it be there is «nature», and in general – there is nature on a planet, where a place is not to the scale casual phenomena, where every atom is on the place, where all is controlled – from a global weather to the biochemical processes in a separate cage? Here looks elimination of another dichotomy: «artificial» — «natural».

A naive idea that nature can «take» revenge on, that more developed technologies bring large risks and large negative consequences, does not have under itself warrants. Now in transhumanism's discourse a question is already put about creation of the fault tolerance systems with assuredly reliable work. Creation of such systems inevitably will plug in itself and development of the checking systems and algorithms of faultless work [8, 87].

One of not insignificant problems is remained by the prospect of change of human society. As all anymore and more people now transmigrate in cities, elderly people lose traditional domestic support and social connections and headily rolled on the verge of marginalization, in the developed countries already today conception of reliable existence «from a cradle to the grave» disappears quickly. Development of medicine of our days goes near a border, after that transhumanists envisage the serious increase of life-span. Such tendency that will grow in course of time puts before society of problem of economic, political, social, psychological, moral plan. Already presently governments change a pension policy, policy in area of medical insurance and service, develop the departmental teaching during all life, react on many calls, related to these problems, here using prognoses as basis of different family.

It should be noted, with the process of increase of life-span the row of problems is set:

- change of retirement age and pension policy;
- development of retraining, educating of adults and people of superannuated;
- conflict between new reality and traditional ideas about age;
- change in the structure of social stratification of society;
- possible decline and in a prospect disappearance of radical motions;
- change in the domestic mode and possible overpopulation [2, 95-96].

Undoubtedly, to overcome the processes of enormous importance, that will specify the all increasing affecting processes of modern social existence of humanity

it is impossible by means of only social prognoses. Small attention is unfortunately spared catastrophically researches of the social phenomena, especially in Ukraine.

Thus, it is possible to draw conclusion, that development of new sciences and technologies cardinally changes our idea about world view and ontological principles of human life, and also life of nature and society. In particular, it touches the revision of traditional ideas about such fundamental concepts as life, reason, man, nature, society, existence.

## REFERENCES

1. Аргонов В.Ю. Искусственное программирование потребностей: путь к деградации или новый стимул развития / В. Аргонов // Вопросы философии. – 2008. – №12. – С. 22-37
2. Артюхов И.В. Новые технологии и продолжение эволюции человека? Трансгуманистический проект будущего / И.В. Артюхов – М.: издательство ЛКИ/URSS, 2008. – 320 с.
3. Бостром Н. Трансгуманизм как философское и культурное мировоззрение / Н. Бостром [Электронный ресурс] // Режим доступа: <http://www.transgumanism-russia.ru.content/view6193/#treat>
4. Гнатик Е.Н. Роль ценностного подхода в антропогенетике и генетической инженерии / Е. Гнатик // Вопросы философии. – 2007. – №6. – С. 70-78
5. Горохов В.Г. Роль фундаментальных исследований в развитии новейших технологий / В.Г. Горохов // Вопросы философии. – 2009. – №3. – С. 67-76
6. Гуревич П.С. Феномен деантропологизации человека / П.С. Гуревич // Вопросы философии. – 2009. – №3. – С. 19-31
7. Дризлих Г. Генетический контроль интеллекта или Что есть истина? / Г. Дризлих // Знание–сила. – 2009. – №1. – С. 66-72
8. Емелин В.А., Тхостов А.И. Технологические соблазны современного общества: предел внешних расширений человека / В. Емелин, А. Тхостов // Вопросы философии. – №5. – 2010. – С. 84-90
9. Лукьянец В. С. Вызовы тысячелетия наукоемких технологий / В.С. Лукьянец // Практична філософія. – 2008. – №3. – 5-16
10. Маркова Л.А. Физика мозга и мышление человека / Л. Маркова // Вопросы философии. – №3. – 2010. – С. 161-171

## LITERATURE

1. Argonov V.YU. Iskusstvennoye programmirovaniye potrebnostey: put' k degradatsii ili novyy stimul razvitiya / V. Argonov // Voprosy filosofii. – 2008. – №12. – С. 22-37.

2. Artyukhov I.V. Novyye tekhnologii i prodolzheniye evolyutsii cheloveka? Transgumanisticheskiy proyekt budushchego / I.V. Artyukhov – M.: izdatel'stvo LKI/URSS, 2008. – 320 s.
3. Bostrom N. Transgumanizm kak filosofskoye i kul'turnoye mirovozzreniye / N. Bostrom [Elektronnyy resurs] // Rezhim dostupa: <http://www.transgumanism-russia.ru.content/view6193/#treat>
4. Gnatik Ye.N. Rol' tsennostnogo podkhoda v antropogenetike i geneticheskoy inzhenerii / Ye. Gnatik // Voprosy filosofii. – 2007. – №6. – S. 70-78
5. Gorokhov V.G. Rol' fundamental'nykh issledovaniy v razvitii noveyshikh tekhnologiy / V.G. Gorokhov // Voprosy filosofii. – 2009. – №3. – S. 67-76
6. Gurevich P.S. Fenomen deantropologizatsii cheloveka / P.S. Gurevich // Voprosy filosofii. – 2009. – №3. – S. 19-31
7. Drizlikh G. Geneticheskoy kontrol' intellekta ili Chto yest' istina? / G. Drizlikh // Znaniye–silu. – 2009. – №1. – S. 66-72
8. Yemelin V.A., Tkhostov A.I. Tekhnologicheskiye soblazny sovremennogo obshchestva: predel vneshnikh rasshireniy cheloveka / V. Yemelin, A. Tkhostov // Voprosy filosofii. – №5. – 2010. – S. 84-90
9. Luk'yanets V. S. Vyzovy tysyacheletiya naukoymykh tekhnologiy / V.S. Luk'yanets // Praktichna filosofiya. – 2008. – №3. – S. 5-16
10. Markova L.A. Fizika mozga i myshleniye cheloveka / L. Markova // Voprosy filosofii. – №3. – 2010. – S. 161-171

## АННОТАЦИЯ

### **Денежников С.С. Мировоззренческие проблемы идей трансгуманизма**

*Статья посвящена мировоззренческим аспектам трансгуманизма. Особое внимание в статье уделено проблеме использования высоких технологий и коренной ломки онтологических и мировоззренческих основ человеческого бытия. Значительное внимание уделено проблеме развития информационных технологий и когнитивных наук.*

**Ключевые слова:** трансгуманизм, мировоззрение, антропность, нейроинтерфейс, сверхразум, когнитивные науки.

## РЕЗЮМЕ

### **Денежніков С.С. Світоглядні проблеми ідей трансгуманізму**

*Стаття присвячена світоглядним аспектам трансгуманізму. Особлива увага в статті присвячена проблемі використання високих технологій та корінної ломки онтологічних та світоглядних основ людського буття. Значна увага приділена проблемі розвитку інформаційних технологій та когнітивних наук.*



*Антропний, в розумінні трансгуманістів, не є абсолютною онтологічною константою (створеної Богом, Природою або ще якимось Абсолютом). Антропний - це найбільше твір мистецтва самої людини. Саме тому найголовнішим завданням турботи про людину трансгуманісти вважають захист прав людини на його власний розсуд удосконалювати це найбільше твір мистецтва. Етико-онтологічний імператив трансгуманізму говорить: не консервувати буття антропності в повноті всіх її нинішніх кінцівок, патологій і ущербності, а покращувати це буття, використовуючи всю міць технологій XXI століття*

*Однією з важливих проблем залишається і перспектива зміни людського суспільства. У міру того як все більше і більше людей зараз переселяються в міста, люди похилого віку втрачають традиційну сімейну опору і соціальні зв'язки і стрімко скочуються на грань маргіналізації, в розвинених країнах вже сьогодні концепція надійного існування «від колиски до могили» швидко зникає. Розвиток медицини наших днів підходить до рубежу, за яким трансгуманісти передбачають серйозне збільшення тривалості життя. Така тенденція, яка з часом буде наростати, ставить перед суспільством проблеми економічного, політичного, соціального, психологічного, морального плану. Уже в даний момент уряду змінюють пенсійну політику, політику в галузі медичного страхування і обслуговування, розвивають систему навчання протягом усього життя, реагують на багато викликів, пов'язаними з даними проблемами, при цьому використовуючи в якості основи різного роду прогнози.*

**Ключові слова:** трансгуманізм, світогляд, інтерфейс, надрозум, когнітивні науки.