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Humanist foundations for the transformations of higher education under supercomplexity

The article is dedicated to the philosophical analysis of today's higher education and the grounds and trends of its transformations, both on-going and desirable for the near future. The authors review the current social situation of supercomplexity and argue that under a perspective of unpredictable and changeable world the aim of higher education can no longer be seen in providing certain sets of skills and knowledge – instead, in the scope of the dialectics of traditions and innovations, such a situation implies “reinventing” the classical European idea of university that presupposes the all-round development of human personality and education of a cultural person as opposed to the approach based on professional skills only. Following the declarations of UNESCO, World Economic Forum and other international organizations on the transformations of higher education, it could be concluded that the foundations of such transformations are that of the classical ideas of humanism. The authors turn to the historical analysis of the humanist ideal in education (as well as of its criticism) since the Renaissance to the present day, especially noting Kant's ideas as the grounds for understanding humanism as the concept that affirms the universal equality of all human beings, as the idea of the autonomy of a human and his or her rights and responsibility for one's life and for the objective world, as well as the idea of the priority of universal identity. It is argued that based on such premises the trends for the transformation of higher education could be outlined as institutional transformations of universities towards deformalization, decentralization and humanization, as well as the necessity to develop an open education system based on anticipatory education that has its goal in shaping universal human qualities.

Keywords: higher education, transformations of higher education, humanism, philosophy of education, anticipatory education, development of universities.

Introduction

The need for the transformations of higher education is one of the most urgent issue in today's world due to the many new challenges faced by the humankind in the 21st c. Among those the working document of the World Higher Education Conference that took place in 2022 mentions climate change and loss of biodiversity, persistence of armed conflicts, income inequality and the overall decline of democracy (which in turn means less academic freedom, less independent thinking, and less tolerance both in research topics and in everyday social life) [UNESCO 2022]. The need to achieve the goals of sustainable development, including ensuring inclusive quality education and promoting lifelong learning opportunities for all people of the world, results in the calls for *reinventing* higher education.

Such an agenda brings forth questions of directions, methods, and contents of the desirable transformations. But first of all, from the philosophical point of view, it is important to designate the Weltanschauung premises of the changes in question and the values that should form the corresponding grounds – as well as to outline the basic principles of the development of HEIs in the contemporary world. On the one hand, following the declarations of UNESCO [2022], World Economic Forum [2024] and other international organizations, it could well be concluded that the premises in question are those of the classical ideas of humanism: the said “reinvention” means moving from elitist and discriminatory, sometimes even alienated, education to the one that would enable people's rights and be equitable, as well as from a restrictive focus on disciplinary or vocational training to a holistic learning experience leading to the transdisciplinary approach and to the goal of educating all-round professionals, classical personalities and fully-fledged citizens at the same time.

In other words, it could be noted that one of the major contradictions that dialectically serves as a driving force that sets into motion the current development of higher education is that of tradition and innovation: the focus on making education more adequate for the complex and unpredictable world of the 21st c. with all its social and technological innovations is paradoxically accompanied by the re-actualization of traditional, classical values of education, including the classical ideal of an educated and universally developed personality. After all, the very term “reinvention” hints that it is not exactly a “new invention” we are talking about, and that the ideas of all-round and equitable education that find their manifestation in the mentioned declaration by UNESCO could well be traced to the conceptions of the mission of the classical university by Ortega y Gasset [Ortega y Gasset 1966] or to the humanist ideas of “pedagogy of freedom” by Paulo Freire [Freire 1994; Freire 1996].

At the same time, on the other hand, an alternative view on the foundations for the present-day transformation of higher education could lead to

quite an opposite conclusion: the freirean approach to education is declared to be limited, and humanism is said to be no longer in a position to present adequate grounds for any pedagogical ideal – due to its inherent anthropocentric approach that contradicts both the goals of sustainable development and the contemporary philosophical ideas in the area of ontology. In particular, as stressed by Tiago Pinho, the “object-oriented pedagogy” has to be grounded not on humanism, but on post-humanism that decenters both the student and the teacher and displaces all their pretensions: “The outside world is not a practical and theoretical product of humans, as humanist pedagogy suggests” [Pinho 2023].

Still, we would like to argue that the quoted understanding of humanism as anthropocentrism is not entirely correct and that the classical humanist ideas find their reinvention in the world of uncertainty, when the development of AI-based technologies and their use in education lead not to weakening, but to strengthening of humanistic values. Not only inequality, decline of democracy and escalation of armed conflicts in today’s world could and should be cured by education based such values, but ecological crisis as well, as it is the crisis of human culture and human relation to the world in the first place, and not just that of the objective world itself.

So, *the aim of the current paper* is to analyze the foundations for the transformations of higher education needed for today’s world and their relation to the values of humanism. The topic of “reinvention” also calls for the use of *post-non-classical methodology* that is actually grounded in the philosophical traditions of dialectics, as opposed to the methodology of a binary thinking of the post-modern kind that could lead to the dichotomies of, say, humanism vs. post-humanism or innovation vs. tradition while not considering the contradictions in question as the true driving force behind the transformation.

Transformations of higher education as the agenda for the 21st century

First of all, let us consider in more details the calls for the transformations that were mentioned at the beginning. Already in 2018, the spokesmen of the Club of Rome expressed the opinion that education for sustainable civilization requires a fundamental shift towards learning how to think in a new, systematic way [Weizsäcker & Wijkman 2018: 196]. In 2020, the World Economic Forum launched an initiative to revolutionize the contents of education in accordance with the requirements of today’s society and the new trends in economy, which is now dominated by the information and communication technologies. The initiative has got the name of “Education 4.0” in order to illustrate its close connection to the concept of the Fourth Industrial Revolution, which features in particular the rise of the AI-based technologies: the initiative thus refers to teaching and learning of abilities,

skills, attitudes and values that are fit for the future. Unfortunately only primary and secondary education is being referred to in recent papers by the World Economic Forum; nevertheless, the goals, trends and experiences set there are quite universal: global citizenship, innovation and creativity, personalized and self-paced, accessible, problem-based and collaborative, lifelong and student-driven learning, which is now said to be made possible due to the help of the AI [World Economic Forum 2024].

As for the higher education, we already quoted the UNESCO program of its “reinvention”, announced in Barcelona in May 2022 and designed to be completed by 2030. The transformation of higher education is declared to be based on such principles as inclusion, equity, and pluralism; academic freedom and participation of all stakeholders; inquiry, critical thinking, and creativity; integrity and ethics; commitment to sustainability and social responsibility; and excellence through cooperation rather than competition [UNESCO 2022: 10–11]. In any case, the universities of the world are to update their ways of thinking, communicating, acting and making decisions in producing knowledge, educating people and practicing their social responsibility (i.e. in the three missions of today’s university) – in total synergy with the on-going transformations of society, science and economy.

As for Ukraine, however burdening the realities of the on-going war are, such a call by international organizations presents not only a challenge, but a *historical chance* to overcome the situation of permanent “catching up” and to reshape its higher education in accordance with the leading world trends. Like the COVID-19 pandemic quite unexpectedly became the catalyst for the digitization of education in many countries of the world and contributed to the formation and popularization of new forms and methods of teaching and learning in secondary schools and in universities, the post-war recovery can become a positive factor as well. Particularly, at the end of 2022, the Ministry of Education and Science of Ukraine presented the transformation program called “Education 4.0: Ukrainian Sunrise”, in total correspondence with the noted initiatives by World Economic Forum and UNESCO. The idea is that Ukraine should immediately move on from the “second” paradigm of education to the “fourth” one that emerges as a response to the formation of Industry 4.0, which features the decisive role of such factors as smart technologies, artificial intelligence, cyber-physical systems and robotics, so that’s why it requires new skills from future specialists, as well as challenges higher education with achieving the ability to form them and with performing its own corresponding transformations. If “Education 1.0” relied on simple transfer of knowledge from a teacher to a student, and “Education 2.0” meant close interaction between teachers and students in dialogue and cooperation, then “Education 3.0” is understood as self-learning based on innovation and creativity with a teacher serving as the coordinator of the process – and “Education 4.0”

is a personalized lifelong learning of many possible forms with a teacher tutoring students [Ministry of Education and Science of Ukraine 2022: 5].

When analyzing such initiatives from a philosophical point of view, it could be noted, first of all, that relying on numbers is not a very good choice here. “Education 4.0” could make a catchy slogan, but it is a poor concept. In particular, it is misleading in its supposable understanding of both economic and social transformation as a discrete and linear process instead of being a continuous and non-linear one. It is quite clear that the first described type of education, which is based on Subject-Object type of interaction between teacher and student, can be easily distinguished from the next historical paradigm of education through communication and cooperation, which is based on Subject-Subject interaction paradigm of the two sides of the learning process (and thus on the basis of considering student as the true subject of the said process as well). But it is much more difficult to see a similarly clear distinction between “Education 3.0” and “Education 4.0”: what is the paradigm here, what values and what methodology underlie these two newer types of the learning process?

Using such numbers also suggests that we are dealing with quantitative transformations of higher education rather than qualitative. Following that trend, it would be quite easy to go on with talking about, say, “Education 5.0”, “Education 7.3” or “Education 12.5” without bothering ourselves much with analyzing and conceptualizing the corresponding paradigms and approaches... In fact, we would argue that the dialectics of historical development of education, as well as that of science, corresponds rather to post-non-classical methodology: the new contemporary paradigm is not just the opposition of the older ones, but a form of their re-actualization, re-invention as well. That is, the classical values are not being denied, like in the post-modern negation of the past or in linear and cumulative approaches to historical development, but they are being developed as well, taking into account all the non-classical multitudes of plural possibilities and alternatives.

Supercomplexity as the context of the development of universities

Of course, all that does not deny that the change of paradigms could indeed be quite radical. But it means that it is very difficult to outline the required changes with the clarity that could have been featured in the age of Modernity with its simple beliefs into the linear and uniform progress of all the humanity. In other words, we cannot define *what* should the education that would enable humans to live in the world of the 21st century be, just because that world in question is constantly changing and could be described as the world of uncertainty and unpredictability. Such features are often designated by the acronym VUCA (“Volatility, Uncertainty, Complexity, Ambiguity”) [Mielkov, Bakhov et al.

2021: 4–7]. The task of coping with today’s world means that higher education has been way ahead of the curve by preparing students to live and work under such social and economic conditions that do not even exist yet!

Ronald Barnett, one of the leading world experts on the topic of the transformations of universities, names such a situation *supercomplexity*. “Simple” complexity we are all accustomed to is actually a kind of quantitative one – it occurs where one is faced with a surfeit of data, knowledge or theoretical frames within one immediate situation, like when a doctor is faced with a number of new drugs appearing on the market or becomes aware of some new forms of surgery. But when that doctor faces what Barnett calls “challenges to his or her own self-understanding”, like the situation of doctors having to consider themselves as consumers of resources and to give a public account of their activities, and when, at the same time, patients are starting to claim their rights for having access to their medical records and to play a part in deciding what treatment is to be used to them – then we are talking about qualitative complexity. It is not only a task of dealing with an increasing surmounts of data and theories within a certain framework, but a task of dealing with *multiple frameworks themselves* – and that multiplication of frameworks is supercomplexity [Barnett 2000: 6].

The researcher argues that supercomplexity is featured by the world in which humans live now, as they are faced with their own frameworks for understanding the world becoming more and more problematic, alongside with their strategies for handling the common complexity. And the university is said to be triply implicated in this world of supercomplexity: first, as the institution that bears at least a part of the responsibility for realizing this situation, having been entitled with producing knowledge and the ways of understanding the world. Second, Barnett argues that many of the frameworks for understanding the world have received “some kind of critical scrutiny within the university”: the university itself produces multiple and contesting frameworks. Finally, “the doubts and difficulties that many experience as part of living amid supercomplexity are expressions of psychological structures of tolerance, openness and reflexivity towards new ideas that the university has itself developed” [Barnett 2000: 76].

We can see that a university today has to solve many contradictory tasks. On the one hand, it must take into account the realities of the market economy and respond to the needs of society and the state by establishing relevant directions for the development of its educational policy. On the other hand, it seeks to preserve its autonomy and academic freedoms, humanistic principles, ethical and intellectual values, and institutional structures of the classical system of higher education. It is important not to allow education to become a tool of survival. At the same time, the problem of defining the boundaries of the university’s interaction with its social environment is also becoming

relevant. All these circumstances could not help but affect the development of the university's institutional structures, the content of its programs and courses and, ultimately, the rethinking of its mission under fundamentally new conditions [Pinchuk 2017].

So, what could higher education do to cope with such supercomplexity it helps to produce itself? We should not pursue an illusion of us being able to return to a simple world – nor to a situation of a, so to say, “simply complex” world that only has some quantitative challenges of vast amounts of information that should be processed (and could actually be processed thanks to the new technologies based on machine learning and AI). We would argue that humans themselves become *complex beings* accustomed to ontological plurality of frameworks and senses, and to try to reduce such a plurality to a kind of usual uniformity would be in vain. The world reflects our Weltanschauung, and vice versa.

And under such a perspective, it is of no sense to consider education in its old “realistic and practical” way of providing pre-determined sets of skills, knowledge and competences. At the same time, it is not at all surprising from a philosophical point of view that such a situation implies not abandoning, but reinforcing the classical European idea of university that presupposes the all-round development of human personality and education of a cultural person [Ortega y Gasset 1966] as opposed to the parochial approach based on professional skills only. By the way: that's why when we talk about higher education institutions in general we actually rather mean *universities* – as those institutions that provide classical and universal education in the first place, as opposed to limited vocational training that was quite relevant under the age of Modernity, with its relative simplicity and predictability, but finds much less usage under the situation of supercomplexity.

And now when universities have, amongst else, to produce specialists in such jobs and spheres that are still to appear in the future with one or another degree of probability, it could be argued that their task lies first of all in shaping such qualities as critical and independent thinking, tolerance, communication, decision making and all other qualities that were mentioned in the quoted initiatives by UNESCO and the World Economic Forum. We can't say that a person with higher education has to possess the knowledge of such and such specific things or be able to perform such or such tasks, but we can say that that person should be able to acquire any new knowledge and any new skills that would be needed for him or her in the more or less distant future in the on-going life activity, both everyday and professional. In other words, what we are talking about here are “open” human qualities and abilities. And that finally leads us to the question of humanist foundations of the new paradigm of higher education.

Humanism and the ideal of education

What exactly is humanism? On June the 8th, 2009 in London, the General Assembly of International Humanist and Ethical Union (IHEU) has adopted its bylaws where humanism was defined as “a democratic and ethical life stance that affirms that human beings have the right and responsibility to give meaning and shape to their own lives” [IHEU 2009]. Historically in the age of Renaissance, the concept of humanism has appeared as a kind of opposition to theistic views on human nature, with the moral autonomy of humans and their free will being proclaimed – and at the same time as a concept that would allow eventually to consider each person as human *per se* (and not a representative of one or another social strata). For example, in the 15th century a Burgundian writer George Chastellain, while praising the usefulness of cities, merchants and all “des gens de labour” for the welfare of the state, still argued that they all remain at the servile level and are thus incapable of achieving any *higher attributes*, like fulfilling the true human purpose (“...il n’est gaires capable de hautes attributions, parce qu’il est au degré servile”) [Chastellain 1889: 13].

Under this perspective, humanism is first of all the concept that affirms the universal equality of all human beings. Every human person is to be seen as capable of gaining “higher attributes” in principle, and no one should be deprived of that capability. Even today, several hundred years after the Renaissance, such a concept remains but a vision. As stated by Leonardo Garnier, the special adviser of the UN Secretary-General on the Transforming Education Summit that took place at the UN Headquarters in New York in September 2022: «To educate every person. It sounds basic and yet, more than twenty years into the 21st century, the world is still far from reaching such a goal, as captured in the 2030 Agenda» [United Nations 2023: 1].

It could be argued that such *education for everyone* refers mostly (if not exclusively) to primary and/or secondary education. However, that’s not necessarily the case: the school education became a reality (a mandatory thing by law, in fact), and not just a vision, in most countries of the world just a few decades ago. And if we talk about the vision for the future and not only about the poorer countries achieving the level of education enjoyed by the Global North already in the age of Modernity, we mean just that vision of every human person being able to have university education. That’s what inclusive and equitable education is all about after all, and that’s what could present the first understanding of humanist foundations for the future higher education, the ideal of education – as opposed to the elitist view that positions only a minority of people being capable of achieving such “higher attributes”.

The idea in question is again not a new one – in fact, that is the very idea of the Enlightenment of the 18th century. The one that was probably best ex-

pressed in the famous words by Immanuel Kant: "Aufklärung ist der Ausgang des Menschen aus seiner selbst verschuldeten Unmündigkeit. Unmündigkeit ist das Unvermögen, sich seines Verstandes ohne Leitung eines anderen zu bedienen. Selbstverschuldet ist diese Unmündigkeit, wenn die Ursache derselben nicht am Mangel des Verstandes, sondern der Entschließung und des Muthes liegt, sich seiner ohne Leitung eines andern zu bedienen. *Sapere aude!* Habe Muth dich deines eigenen Verstandes zu bedienen!" [Kant 1784: 481]. Actually, we are witnessing here the assertion of another aspect of humanism – the idea of the autonomy of a human, of one's right and responsibility to be the subject of one's own life without transferring such a right and such a responsibility to anyone else. By the way, that's what links together classical science with its free and critical search for the objective truth, and democracy with its stress on equality.

It was during this historical age that the self-worth and uniqueness of human personality was realized in a new way, which was greatly contributed to by the growth of knowledge borrowed from philosophy and humanities. Kant was one of the first to raise the question of human person as the subject of culture – and human person is defined here as an active being that creates culture. At the same time, the meaning of culture is envisioned as the comprehensive and free development of a person. Culture in the context of Kantian philosophy actually means a system of humanistic values, and its main content is the idea of *morality within us*, which is realized mostly through education and self-education. In education and self-education, according to Kant, lies a great power of improving the human nature [Pinchuk 2011: 4].

Of course, that does not mean that Kantian rigorism was left without criticism. After all, Kant's ethics was based not on achieving welfare or happiness (as the moral autonomy of human had no influence on that!), but on achieving the state of *being worthy* of happiness: "Ich hatte die Moral, vorläufig, als zur Einleitung, für eine Wissenschaft erklärt, die da lehrt, nicht wie wir glücklich, sondern der Glückseligkeit würdig werden sollen" [Kant 1797: 162], as that's what a person actually can and must do. And any such reference to humans and humanism in general could seem to be just too *abstract*. When we talk about humans per se, we necessarily neglect all particular features of each real human being. Under this perspective, humanism is the concept that affirms the priority of universal identity (*being a human*) over any partial identities (social, national, ethnic, vocational, gender etc. etc.). But is there something left in the former without the latter? In 1796, just a little more than a decade after Kant's call for *Sapere aude!* (and after the French revolution did try to actually realize that idea of Enlightenment in political practice), French philosopher Joseph de Maistre exclaimed in his brilliant and half-sarcastic manner: "Or, il n'y a point d'homme dans le monde. J'ai vu, dans ma vie, des François, des Italiens, des Russes, etc.; je sais même, grâces à Montesquieu,

qu'on peut être Persan: mais quant à l'homme, je déclare ne l'avoir rencontré de ma vie; s'il existe, c'est bien à mon insu" [de Maistre 1829: 94].

Abstract humanism fell out of fashion by the beginning of the 19th century. A hundred years later John Dewey, who was one of the first to notice that close connection between science, democracy, humanism, and education, used to argue that under the paradigm of the Enlightenment with its individualistic cosmopolitanism, the full-scale development of a particular personality was identified with the aims of humanity as a whole and with the idea of progress. The departure from such an understanding of education is closely connected with the appearance of the concept of a nation state, especially in Germany: the philosophical idea of the full and harmonious development of human qualities and abilities gave way to education subordinated to the apparatus of the existing political power, and therefore humanity as a whole as an open community was gradually replaced by a closed community of a nation, as Fichte and Hegel succeeded in opposing Kant with his individual-cosmopolitan ideal of the Enlightenment. Correspondingly, the idea of education was now seen as the function of the state, and disciplinary training that follows certain pre-determined standards gradually took the place of the free personalized development. "The "state" was substituted for humanity; cosmopolitanism gave way to nationalism. To form the citizen, not the "man," became the aim of education" [Dewey 1940: 109].

Humanism in today's higher education

However, that was definitely not the last we heard of humanism! Indeed, the classical humanistic and cosmopolitan idea of the Enlightenment did feature a certain degree of abstract uncertainty and the lack of indication of specific ways of its implementation into practice. But, having acquired such ways and having "gone all practical" due to the subordination to the state apparatus as an agent of its implementation, this idea of education turned almost into its opposite. As a result, we can say that today, when we celebrate the 300th anniversary of Immanuel Kant's birth, his humanist ethical ideal becomes relevant again. Under the post-non-classical methodology, the classical unity does not exclude non-classical plurality, just as universality does not deny singularity – on the contrary, the universal can only manifest itself in real life *as* a singular and *within* a singular. The diversity, which already became a recognized value in biological science (the phenomenon of biodiversity in ecology is one of the things that sustainable development and thus education for sustainable development strives to preserve at almost any cost), now reasserts itself as a value in social sciences and humanities as well, emphasizing not only plurality, but also integrity of every existing culture, nation, gender etc. Humanism as a general attribute and identity is understood not in a quasi-classical,

fundamentalist way as a dominant uniformity, standardization or a kind of replacement of the values of any particularity with abstract “universal values”, but – in full accordance with the non-linear fractal approach – as a vision of diversity as complementary, as an effort to reach the level of mutual respect, tolerance and “unity in plurality” [Mielkov 2023: 5].

Correspondingly, the idea of humanist autonomy comes into play again, especially in education. Under the age of Modernity, a nation state or any other administrative body could well forecast and prescribe what specialists and with what exact skills are needed for the industry, as we have already noted above. The situation of supercomplexity ends this planned development: with the advent of the new technologies and the realities of the unpredictability mechanical skills and therefore the centralized education that had its goal in training specialists with such known skills give way to the task of educating a creative human personality.

We would argue that achieving such a goal is impossible under the old paradigm of nation-state supervising the education system, especially in the field of higher education. No authority can force human to be creative, and it is not surprising that creativity as a goal of education is inseparable from that of responsibility and autonomy. In the 20th century, one of the most prominent thinker and the proponent of human freedom was Paulo Freire with his “Pedagogy of the Oppressed” and “Pedagogy of Autonomy”. The whole idea of education is said to be that of humanization, and while it was always the central idea, now, according to Freire (who wrote that in the 1960s) it becomes urgent as well, as the opposite concept of dehumanization became not only a ontological possibility, but a historical reality (“não apenas como viabilidade ontológica, mas como realidade histórica”) [Freire 1994: 16]. Such dehumanization is the result of the oppression, and the oppressors dehumanize both their victims and themselves; correspondingly, only the oppressed are capable of freeing themselves and their oppressors: “Por isto é que, somente os oprimidos, libertando-se, podem libertar os opressores” [Freire 1994: 24], – such ideas are even more relevant in the course of the contemporary war with its almost total dehumanization...

As a consequence, Freire opposes education as a practice of liberation based on communication to the old paradigm of education he calls “the bank model” (that’s “Education 1.0” by today’s schemes); almost repeating Kant’s call of *Sapere aude!*, the Brazilian thinker stresses that one of the main goals of education is to enable the students to assume themselves as social and creative persons, amongst else: “Uma das tarefas mais importantes da prática educativo-crítica é propiciar as condições em que os educandos em suas relações uns com os outros e todos com o professor ou a professora ensaiam a experiência profunda de assumir-se. Assumir-se como ser social e histórico, como ser pensante, comunicante, transformador, criador, realizador de sonhos, capaz de ter raiva porque capaz de amar” [Freire 1996: 46].

On the very beginning we already mentioned that humanist ideas by Freire find some opposition today just like Kant had his share of criticism more than 200 years ago. According to Tiago Pinho, with all the due respect to Freire and with all the appreciation of his works, the new ontology, as argued by Bruno Latour and Graham Harman, presupposes the departure from traditional humanistic paradigm of education. However, we would argue that this assumption is not actually correct as it is based on identifying humanist position with that of anthropocentric Weltanschauung, like the one seen in Marxism or liberalism [Pinho 2023: 131]. Anthropocentrism and such other features of different ideologies of the Modernity age as technological optimism or beliefs in progressivism, demonstrate their weakness and inadequacy after the humanity has acknowledged the existence of the ecological problems and crises. It turned out that the natural world is not actually centered on human being – it exists as a value in itself, and becomes quite vulnerable and endangered by human activity that used to deny any limits to its development.

After all, the whole idea of sustainability, which forms the ground for outlining any future social transformations, including those of higher education [Gough & Scott 2007], is based on recognizing the environmental factor of the development so its other aspects and vectors, like social and economic development, would not be achieved at the cost of the destruction of nature. But humanism is not a position of “human egoism”: in our opinion, it is a position of humans acknowledging their responsibility for the world, their role in producing knowledge and senses for and on the world. When Paulo Freire argues that education as a practice of freedom, as opposed to education as a practice of oppression, denies abstract humanism, it means for him the denial of the world as a reality where there are no humans (“negação do mundo como uma realidade ausente dos homens”) – it is a reality of humans with their interrelations with the world. Freire recollects the words one simple peasant had once spoken to him: there would be no world without humans, because there would be no one to say that *it is* the world [Freire 1994: 40–41]. Both extreme objectivism and extreme subjectivism are erroneous: “É admitir o impossível: um mundo sem homens, tal qual a outra ingenuidade, a do subjetivismo, que implica em homens sem mundo. Não há um sem os outros, mas ambos em permanente integração” [Freire 1994: 20].

Human relation to the world is not only the one of a cognizing subject to an object, but also an attitude of close unity and love. Even the purely scientific research is based on such an attitude – as exclaimed by one of the contemporary researchers of higher education: «How could one enjoy teaching without being fascinated by the subject and wanting to find out more about it?» [Rowland 2005: 92]. In fact, it is not only Spinoza’s *amor intellectualis* we are talking about, but the love in its full measure. After all, it is one more aspect of humanism as the foundation for the development of today’s universities:

consideration of human beings in all their aspects and abilities, as the education that is based on mind alone is said to be no longer sufficient [Weizsäcker & Wijkman 2018: 196].

An Insight into Humanist Transformations

However, let us come back to the main problem. Considering all those humanist foundations, what transformations of higher education we can envision or talk about? Probably, the first fundamental and significant problem that arise on those premises is the preservation of the high meaning of human personality in the space of educational culture, an example of which can be seen in the emergence of such modern trends as “ecology of culture” and “ecology of human”. The contents of education or, in other words, the ideal of a human person, which is to be formed by education in any given historical period, depends on the goals that humanity sets for itself. It is education that should become a system-creating agent of human civilization in the era of globalization processes. After all, without a new education system that overcomes the mentioned “dehumanization” of a human person, ways of mutual understanding between different socio-cultural traditions cannot be found.

Second, the strategic trend for the transformation of modern education is determined by the openness of the education system to all socio-cultural innovations. And thus we would argue that one of the most important and constructive ideas in the field of strategy for the development of the open education system is the idea of *anticipatory education*. The essence of this idea is to ensure the anticipatory nature of the development of the education system against the background of other factors that determine the socio-economic and cultural development of society. In the system of anticipatory education, a significant share of the learning process is devoted to the study of new fundamental knowledge, processes and technologies, information about which should enter the education system through various channels of interaction with the system of science, data banks and knowledge of scientific and technical information.

Third, another idea related to the strategy of development of open education is the idea of *humanization of education*. The fact is that the widespread use of digital and informational technologies made it possible to significantly change the model of education. Indeed, the information resources at the disposal of all participants of the learning process when solving specific cognitive tasks are practically unlimited. But there are certain peculiarities and problems here: first of all, the results of such learning are not always predicted and guaranteed, and the time spent can also be unreasonably extensive; second, the involvement in modern information culture is an absolutely necessary existential experience. The skills of working in IT networks are internalized

in the same way as the traditional skills of reading, writing, the ability to analyze, etc. Thus, the open information space affects the effectiveness of a person's socialization and shapes one's social experience, value orientations and attitudes. And this are already humanistic categories in their purest form.

The relationship and mutual influence of culture and education is a complex, multifaceted, dialectical process. It is for this reason that the solution to the problems of transforming education, so that it would be capable of influencing the life of society, requires the study of both the internal substantive trends of its changes and the peculiarities of national cultures within which it unfolds. Accordingly, modern education in the conditions of a radical change of world orientations should develop such a position that would not create a cult of absolute denial and would allow finding the possibility of "communication" with philosophical and pedagogical traditions of various cultures of the humankind. This is, first of all, a search for ways of forming spirituality. By spirituality we understand the ability of a person to translate the universe of external objective being into the internal "universe" of a person and "morality within us", the ability to create that inner world, thanks to which the possibility of being a human is realized in its full extent. Such spirituality reveals the ability to represent one's society, one's time, one's national culture, to participate in their creative transformation and development, the opportunity to feel oneself a part of this world, to be in demand by it, to take an active part in the reproduction of human existence, both material and spiritual. This should be the true ideal of the philosophy of education.

So, the modern system of open and multifaceted higher education should be created on the basis of a combination of the latest scientific and humanitarian knowledge and should be aimed at forming such qualities of a student that will allow him or her to successfully adapt, live and work in the conditions of the 21st century with its supercomplexity.

Among these qualities, in particular, the following should be highlighted:

- system academic thinking based on rational inquiry and organized skepticism;
- ecological culture based on recognizing the nature and world in general as a value in itself;
- informational culture based on abilities to use and to control new technologies;
- tolerance and creativity as an attitude to the others and to oneself;
- high morality as the base for any activity and understanding.

It is these qualities of humans that must ensure survival and further sustainability of civilization. Therefore, they should be the priority goals for the open education system.

As for the perspectives of the more practical transformation of universities under supercomplexity that are desirable to ensure the anticipatory nature of education and the formation of the mentioned human qualities, we would try to outline a few possible trends. From the perspective of the research activity, the university manifests itself not only as a center of knowledge production, but as an agent of enforcing and spreading the *academic culture* in society as a whole as well. That culture could be considered the epitome of critical thinking and the ethos of rational discourse and inquiry. For instance, instead of forcing all students into writing standard term papers on pre-established topics (as many of students do not have neither the skills nor the call for that, such a procedure achieves little and leads but to an escalation of plagiarism!), it would be wiser to get students acquainted with ideas of what knowledge is and how it is formed; what academic inquiry is; how rational argumentation works and how to distinguish reliable sources from unreliable ones and facts from fakes – something that would benefit both their everyday life and professional activity unrelated to science per se. In fact, as shown by the researcher of “digital humanism” Christian Fuchs, “Too many people distrust the very ideas of facts, truth, experts and research. They believe that truth is what they find emotionally comforting and ideologically acceptable” [Fuchs 2022: 1]. Today’s post-non-classical science could find its way out of its social crisis by shaping the broad academic culture not as a specific vocational enterprise, but as a component of *Weltanschauung* peculiar to any educated person – in full accordance with the humanist ideal of every person being the subject of one’s own judgment relying on the ability of critical thinking.

From the perspective of institutional transformation of higher education, the development vector is that of re-institutionalization, *deformalization and decentralization*. Under supercomplexity, neither a government body nor an institution of higher education itself can act as a single subject both in its activity and in determining the strategies of its transformation. Such tasks have to be initiated by grassroots in a democratic way as they require active participation of all individuals and structures involved in the educational process as its full-fledged subjects. Moreover, the university in today’s world no longer possesses a monopoly on higher education, giving way to other actors and especially to *self-education*.

A university ceases to be a separate independent institution – and becomes a kind of a network closely incorporated into multifaceted structure of a complex contemporary society. That perspective leads us to the consideration of the social perspective that would enable the synergy of higher education, contemporary industry (even if we do not tend to designate it as “4.0” or else). The development of information and the AI-based technologies makes it necessary for humans to understand all limits and possibilities of machines and to be in control of their creations. In that way a contemporary

university would turn from creating knowledge to shaping the knowledge society itself – but the more concrete insight into perspectives and trends of such transformations requires special investigation and could constitute the subject of further research on the proposed topic.

Conclusions

To summarize, we can say that the processes we witness in today's world allow us to talk about the possibility of a New Enlightenment, about a chance to return at a new level to the ideals of humanism, to a democratic understanding of each person as being capable of creativity and obtaining higher attributes. The paradox and the contradiction between traditions and innovations mean the re-actualization of classical values and ideals of higher education, and the premises for the transformations of higher education in the 21st century are that of the classical ideas of humanism. Humanism manifests itself from the philosophical perspective as a complex of values and ideals based on affirming the equality of all human beings; their autonomy and their right and responsibility to be the subject of one's own life; the integrity of human nature consisting of rationality, morality, emotions, and will amongst else; and the priority of the universal identity of being a human over any partial identities that constitute a concrete human person, thus shaping the grounds for tolerant attitude towards the others and for the love and responsibility towards the preservation of the natural objective world.

These are also the grounds for outlining the desirable transformations of higher education and for the development of universities. Under the situation of supercomplexity, it is no longer possible to prescribe in a definite and a centralized way any procedures and standards of the process of learning nor the specific knowledge and skills that a student of a university must possess after completing his or her course in higher education. That situation influences both the trends of institutional transformations of HEIs towards deformatization, decentralization and humanization and the necessity to develop an open education system based on anticipatory education – as well as sets the goals for higher education in shaping not specific sets of skills, but rather universal human qualities that would enable humans to acquire and to create any new skills and any new knowledge needed for their both everyday life and professional activity in the world of the unpredictable future.

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Юрій Мєлков, Євген Пінчук. Гуманістичні підвалини трансформацій вищої освіти в умовах понадскладності.

Статтю присвячено філософському аналізу сучасної вищої освіти та передумов і тенденцій її трансформацій, як поточних, так і бажаних у найближчому майбутньому. Автори розглядають сучасну соціальну ситуацію понадскладності та стверджують, що в перспективі непередбачуваного та мінливого світу мета вищої освіти більше не може вбачатися у наданні певних наборів навичок і знань – натомість, відповідно до діалектики традицій та інновацій, така ситуація передбачає «перевинаходження» класичної європейської ідеї університету, яка передбачає всебічний розвиток людської особистості та виховання культурної особи на противагу підходу, що базується лише на професійних навичках. Виходячи з декларацій ЮНЕСКО, Всесвітнього економічного форуму та інших міжнародних організацій щодо трансформацій вищої освіти, можна зробити висновок, що в основі таких трансформацій лежать класичні ідеї гуманізму. Автори звертаються до історичного аналізу гуманістичного ідеалу в освіті (а також його критики) від епохи Відродження до наших днів, особливо відзначаючи ідеї Канта як такі, що заклали підвалини розуміння гуманізму як концепції, яка стверджує загальну рівність усіх людських істот, як ідеї автономії людини, її права та відповідальності за власне життя та за об'єктивний світ; а також ідеї пріоритету універсальної ідентичності. Стверджується, що на основі таких підвалин можна окреслити тенденції трансформацій вищої освіти – це інституційні перетворення університетів у напрямку деформалізації, децентралізації та гуманізації, а також необхідність розвитку системи відкритої освіти, заснованої на випереджувальній освіті, яка має свою мету насамперед у формуванні людських якостей.

Ключові слова: вища освіта, трансформації вищої освіти, гуманізм, філософія освіти, випереджувальна освіта, розвиток університетів.

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