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Philosophical Futurism and the Evolution of Education: Analyzing Personality Consciousness, ICT, and Forward-Thinking Pedagogical Strategies

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Abstract: **The purpose of the article is to** identify promising educational strategies in the context of the correlation of the personal potential of the subject of the educational space and the capabilities of innovative educational elements. The philosophical and futuristic guidelines of educational development are focused on the worldview and mental transformation of consciousness associated with the active use of ICT elements. **The tasks of the article are** focused on the philosophical and ideological understanding of the educational space of the future - positioning of the subjects of educational activity and a new balance between the traditional and innovative components of the educational system. **Methodology.** The study used general scientific methods: analysis, comparison, and systematisation. A special place in the methodological arsenal of scientific research is occupied by forecasting and modelling since they help to achieve the goals of the article - to identify promising educational directions of development. The philosophical and scientific methodological approaches, especially those of synergistic content, have also been updated. Interdisciplinary connections provided

an opportunity to study innovative elements and their impact on improving the educational paradigm. The **results of the study** indicate the need for a balance between the potential of the subject of the educational space and the capabilities of the information technology cluster in the educational process. **Prospects for the study are the** development of philosophical and axiological guidelines that will become a guide for the feasibility of using innovative educational formats. **Conclusion. Thus, the** evolution of education is occurring at a rapid pace and is causing a transformation of the value components of this sphere of social activity. Such perspectives define a new understanding of the content of the educational environment, pedagogical format, and activity of all subjects and stakeholders of the educational process.

Keywords: education, educational strategies, ICT, innovative pedagogical space, subject of education.

Introduction

The education of the future is being formed today, so all innovative and promising phenomena and processes observed in the modern educational space have every opportunity to transform their status from alternative to classical over time. The rapid development of modern civilisation with the active use of information and technological development radically changes not only the format of social activity but also forms new meanings of human activity. The goals of educational strategies are no longer limited to acquiring an educational level with an appropriate level of competence. The education of the future is a set of educational, value, and civilisation skills provided by a new universal educational environment. Under such conditions, the problem of philosophical and axiological interpretation of the new meanings of educational development and the readiness of individual, social, and civilisational consciousness for a new worldview has become relevant.

Research Problem

The research problem of scientific research is focused on the coordination of the individual development of the subject of the educational process and the transformation of the educational environment into an active ICT space. The philosophical and axiological guidelines in the education of the future do not imply the formation of fictional futuristic formats, but rather the coordination of the existing educational potential, which will continue to develop within the framework of industrial and technological progress. Cultural and historical development is cyclical in nature in terms of philosophical and value-based updating of the worldview paradigm. In the periods of

Research Focus

The focus of the study is on human awareness and perception of transformations in the educational environment. The ability to differentiate ICT potential in everyday life and in a specific educational space is a key task for philosophical and educational discourse. Personal perception of the new educational format will determine its effectiveness, and public understanding of the benefits of innovative education will ensure that the intended purpose of this area is fulfilled. A philosophical and axiological analysis of the prospects for education will help to form the basis for the worldview beliefs in society regarding the new paradigm of this field.

Research Aim and Research Questions

The purpose of the article is to identify strategies for the development of future education, taking into account two key factors: the personal potential of the subject of education and the innovative educational environment (in which ICT formats prevail). The tasks of the article are focused on the development of philosophical and futuristic guidelines for educational development, which are oriented

towards the perception of active use of ICT elements. The key research question of the article is the ability to reconcile the traditional target educational purpose with the active innovation processes of the ICT segment.

Literature Review/Theoretical Overview

In recent years, the scientific and educational discourse has been actively discussing the problems of the individuality of the subject in the education system, related to the fundamental transformations of educational formats and the purpose of educational activity. Among the main problems of the philosophical and educational analysis of the education of the future are the following clusters:

- personal potential of the subject of the educational process and the impact of innovative educational formats on it;
- futuristic views on the development of the educational paradigm, taking into account the use of ICT elements;
- a new educational environment in which there is a synergistic combination of personal and innovative potential and their correlation in the educational strategy.

Bengtsen & Barnett (2020) point out that education has historically been situated between knowledge and culture, as these two sources are crucial for education. Therefore, the prospects of the educational sector depend on both the development of rational knowledge and the ability to implement this knowledge in a cultural environment. Reinertsen (2022) suggests going beyond cultural frameworks to identify real, rather than standard, educational needs in the short and long term. In addition, Hägg & Kurczewska (2021) pay tribute to experience as a kind of regulator of the processes that take place or are planned in education.

Among the philosophical and futuristic characteristics of educational progress, several aspects can be distinguished: existential and semantic (Pishchanska et al., 2022), axiological (Danaher, 2021), epistemological and methodological (Peters et al., 2022), moral and ethical (González-Zamar et al., 2020), etc. Some scholars believe that the philosophy of education cannot explore the future but should focus exclusively on analysing real educational trends (Jackson et al., 2022). Jandrić & Knox (2022) note the increasing opportunities for philosophically synergistic interpretation of the future of education due to the growing role of interdisciplinarity in all its manifestations.

It is noted that the formation of the technological and digital environment in education took place in the context of the postmodern philosophical and worldview dimension (Pieshev et al., 2022). The ideology of destroying stereotypes and the dominance of nihilistic principles lit the green light for all possible innovations in education. It is worth noting that in such conditions of socio-cultural permanence, it is the technological and digital dimension that has not only taken root in the field of education but has also become its driving force. The ICT cluster has given the educational process a new systematic nature in the turbulent flow of globalisation (Zin et al., 2022). Henderson (2020) positions ICT elements as a potential for the educational space.

Techno-futuristic and eco-utopian ideas are proposed in their research by Cassab Carreira et al. (2022). Such studies are relevant to the current article, as they describe not only the prospect of technological development dominating, but also point out the imperfection of the usual human-dimensional eco-oriented paradigm, in which a person (teacher or student) is assigned a unique status in the educational system.

Automation of processes, the ability to process and broadcast big data, artificial intelligence as an alternative to natural human mental abilities - all these are becoming the subject of discussion in the

educational dimension (Carvalho et al., 2022). Aparicio Gómez (2020) emphasises the advantages of ICT in education in that this segment can have both formal and informal status in the educational process, which significantly expands its capabilities and scope of application. At the same time, Falcinelli & Moschetti (2021) conducted a study on the effectiveness of the perception of an educational programme with and without the use of computer-based thinking, which indicated virtually identical results, raising many questions in the scientific and educational community about the feasibility of idealising the ICT format of education.

Research Methodology

General Background

The methodological arsenal of the study consists of general scientific, scientific-pedagogical, and philosophical methods. The use of analysis provides an understanding of the conditions of personal development in the paradigm of modern education. Comparative analysis studies the key components of traditional and innovative educational development and attempts to synchronise these elements to create a universal educational paradigm that will harmonise the concepts of content and format of education. The systematisation of data on the functioning of education in the new regime allows us to identify all aspects of educational activity and take into account the shortcomings of innovative impact.

A separate methodological dimension used in the research is the philosophical and synergistic approaches to analysing educational development at the present stage and an attempt to model educational strategies for the future. Synergy involves the interaction of all actors in the educational process and the adjustment of balances in all processes and formats of the educational environment. Interdisciplinarity and self-organisational characteristics are the practical tools that achieve this interaction.

Research Results

The results of the study indicate total changes in the educational environment associated with the active introduction of innovations (primarily of an information technology nature). However, an in-depth analysis of educational transformations indicates a change in the format of the educational environment, while maintaining the target aspects of educational activities. At the same time, the philosophical and axiological analysis of educational strategies points to the need to transform the content of the educational paradigm of the future.

The philosophy of modern education is focused on improving the learning process. At the same time, the philosophy of education of the future only offers possible options for the format of education: humanistic education, digital education, hybrid education, inclusive education, individual education, and lifelong learning (Prodan, 2023). By modelling the overall socio-cultural development, the educational strategy and format of education that is closest to the realities of society's development is determined. The peculiarity of the philosophy is to go beyond the functionality inherent in education and science separately, as well as an attempt to consider institutional changes in this area of society (Lampert, 2021).

Futuristic views on education reveal the prospects of certain educational concepts that are currently not scaled up despite their relevance and demand in the labour market. In particular, the theory of positive education requires proper technological support for the educational process (Rempala, Sifferd & Vukov, 2021). Therefore, the future of education is undoubtedly linked to the expansion of its functionality. Vlieghe (2020) assigns to the philosophy of education the function of

“expanding the boundary spaces of education”. In the context of studying the prospects of education, the problem of the scale of coverage of the educational space is indeed of particular importance.

The gaps between the content and format of education, which are already observed in the educational process and will only deepen in the short term, will require new solutions from the scientific and educational community. The use of information technology and digital support for education provokes a number of reactions in the educational environment (see Table 1).

Table 1

Problematic elements of ICT use in the educational space

Manifestation of ICT activity in the education system	Impact on the functioning of the educational process and its subjects
Scalability	The gradual displacement of the traditional model of education, although a purely functional transformation, is perceived as a threat to the content of the educational process, which may lose its human dimension
Intensity	The perception of educational content in the ICT format has its own peculiarities and already requires additional analysis, as there is a real threat of superficiality of knowledge and unjustified replacement of fundamental skills with elements of clip thinking
Efficiency	The effectiveness of the use of the ICT format of education has been repeatedly confirmed by various studies and has only one caveat regarding the need to maintain a balance between qualitative and quantitative indicators of educational activity

Source: author(s) own development

These manifestations of ICT activity have implications for the education system already now and are therefore being actively studied by the educational and scientific community. However, in addition to the practice-oriented analysis, it is necessary to take into account the philosophical and axiological dimension of this issue. Values that are formed directly in the context of the introduction of new educational formats have a new nature and are completely different from traditional values and the process of their establishment in individual or social consciousness.

The scale of the ICT segment implementation in the educational system has reached a level where quantitative indicators are transformed into qualitative ones. The academic educational environment is gradually defining axiological constants for innovative educational elements. The education of the future will depend on the quality standards that are being set right now when technology is only gaining its place in the educational paradigm (Chebab, Moulay & Rabbani, 2021). At the same time, global trends of technologisation and digitalisation are driving the use of innovative and experimental educational elements (Knight & Silvey, 2019). Kertscher (2019) emphasises that “rationalistic motives of education” have long been in need of nourishment, the logical expression of which is the technological support of knowledge.

This is how the strategic logical structure of the entire educational vertical is formed in the cultural and historical context. Since the late Renaissance, rationalism has been the foundation of science and education in general. Scientific and technological progress gradually but systematically filled the

educational environment with new formats. Modern industrialisation has become a kind of culmination of this process. The future of education already depends on new accompaniments, as the topic of technologisation has actually exhausted itself in terms of its strategic application in education (although practical implementation will introduce new formats for a long time and in various ways).

The futuristic dimension of learning, according to Mampane (2020), is designed to promote the intellectual, social, and emotional development of the subjects of the educational process through technology. Among the conceptual transformations of education is the transition to a higher level of critical (Bellaera et al., 2021) and creative thinking. Logical thinking is also a relevant structural phenomenon for building educational strategies of the future (Ekrem, Aylin & Ozlem, 2023). Thanks to logic, the guidelines of the innovative format of education will become clear and systematic, which will allow them to be fully implemented on an appropriate scale. Forward-thinking and foresight culture are not cultural and ideological theoretical concepts but are integrated into the educational cluster, forming new skills in the subjects of the educational space (Kuo-Hua & Li-Ping, 2020). Kaur & Chahal (2023) add computational thinking to the thinking paradigm of the educational space of the future, which will be the result of a person's everyday practical use of the achievements of technological progress. Li (2021) generally predicts the inclusion of computational thinking in the paradigm of fundamental skills in education.

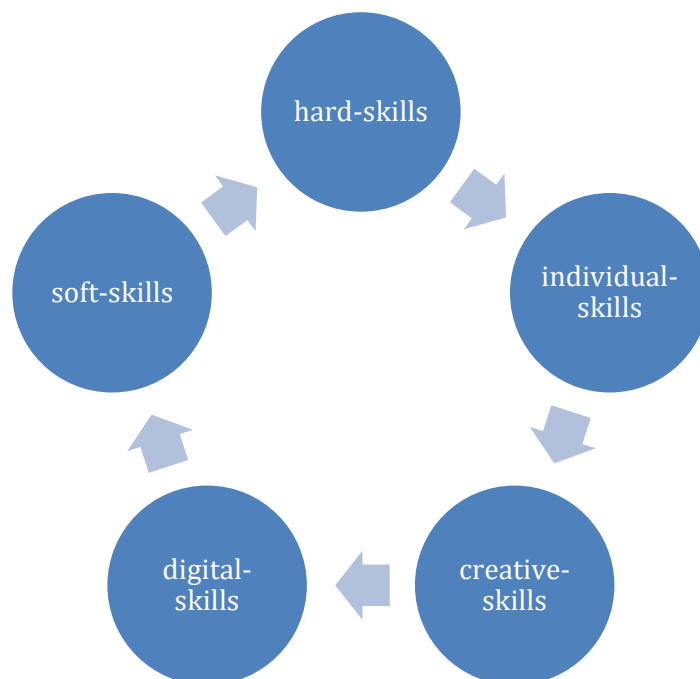
These examples of thinking activity determine the individual dimensions of educational perspectives. The subjects of the educational process acquire the qualities that are in demand in social development. The individual characteristics of a person become a certain counterweight to the immensity of technologisation because these processes are controlled by a person in one way or another. It is the individual who forms the boundaries of the use of technological arsenal in education, so individual consciousness is a fundamental factor in building an educational strategy.

Integrative is a principle that significantly improves the educational process, despite all the innovative elements and variables in education. Suriamurthee (2023) notes that all futuristic dimensions of future education have significant integrative and adaptive potential, without which the transformation of education will not be systemic and is doomed to conservatism. Integration is able to ensure the scale of innovative transformations in education and involve the ICT segment to the fullest extent (Shah, 2022).

One of the priorities of the modern educational paradigm is pragmatism. The tendency for efficiency to override other educational goals is firmly established in the public consciousness. In this context, technological and digital tools are emerging as tools that will increase the level of efficiency in education in the future (Debaprasad & Gour Sundar, 2022). The prospects of education depend on the implementation of quantitative and qualitative indicators of ICT in education.

The education of the future, as defined by Santoso (2021), will be about acquiring universal skills. Traditionally, education has focused on acquiring the appropriate educational level - general theoretical or professionally oriented knowledge. Hard skills have long been a fundamental target element of education. However, with the rapid development of globalisation processes, the usual paradigm has gradually been supplemented by flexible skills - universal qualities of a humanitarian nature. Recent years have added two more powerful components to these skills - digital and creative skills. If we add to the educational strategy the actualisation of individual-skills, which is inherent in the educational space of the twenty-first century, we will get a set of universal skills of the educational paradigm of the future (see Fig. 1).

Figure 1



Source: author's own development

The philosophical and axiological guidelines are aimed at updating the discourse on several key issues related to the implementation of an innovative educational space:

- the ability to fully perceive new educational formats by the subjects of the educational space;
- correlation of educational goals with the requirements not only for the acquisition of educational competencies but also for the formation of universal worldview and moral beliefs.

It is worth noting that all trends related to the dynamism of ICT use in education are variable, despite the scale of implementation. In the modern educational process, it is generally inappropriate to compare the traditional and technological-digital educational environment, as the latter is constantly changing in accordance with internal capabilities and external conditions. The lack of fundamentality at the level of public consciousness regarding the status of the ICT education cluster provokes the concept of the variability of educational futurism (Andreoletti & Spolaore, 2021). As long as the innovative educational environment is no longer perceived as an alternative to traditional learning and becomes the same classical educational element as the face-to-face education system, all educational development strategies will vary and include many variables.

The futuristic dimensions of education are gradually acquiring new meanings. If in the twentieth century futuristic predictions in the educational sphere were associated with the socio-technological aspect and public perception of the manifestation of technological progress in the educational system, in the modern understanding, educational futuristic elements are focused mainly on the individual level of technology and the digital world in education. Transhumanist philosophical paradigms (Güzel, 2021) are successfully combined in the paradigm of education of the future as the interaction of humans and technology in this area. Papagni (2021) emphasises that transhumanist dimensions do not change a person, but modify their nature and essence, which gives the technologisation of education a new - targeted rather than functional - character. At the same time, Sigmund (2021) raises the question of the

ability of the synergistic union of humans and technology to expand the acceptance and understanding of the world. Having not received an affirmative answer, part of the scientific and educational community remains in the position of ICT functionalism in education.

Another topical education-oriented question arises in the context of the current situation - whether the educational space is needed to establish the techno-realism of the future (Means, 2019). The cultural and historical analysis argues that throughout the existence of civilisation, all worldview paradigms (religion, science, statehood) have been established through the educational system. In this case, technology may be the first dominant element of the worldview that has not entered the public understanding through education. It is obvious that if socio-cultural factors (pandemic-related restrictions) had not intervened, ICT elements would still have remained only an auxiliary tool in the educational sphere (Khan et al., 2021).

Discussion

Futuristic strategies in any sphere of social activity cause a lot of discussions and even disputes about their viability and further implementation. The educational sphere is no exception in this regard, with transformations in the field causing a real scientific explosion among the scientific, educational, and philosophical community. Considering the key contradictions that are becoming more acute in the context of the development of the education of the future, we can differentiate them by the timing of their implementation:

- short-term educational programmes that involve the prompt use of innovative formats virtually online and receive an appropriate assessment of feasibility and effectiveness from the educational community;
- Long-term educational plans that are more ideological and strategic in nature and are based not only on the practice-oriented dimension of the innovation component in education but are more focused on the goals that will be achieved through these innovations and the potential acceptance by the educational environment.

The Japanese cultural and historical tradition of the post-war period is an illustrative example of the dichotomy of tradition and innovation in the socio-cultural space in general. Azuma & Hui (2021) held an open discussion on the threats to cultural progress posed by technological advances. The authors came to a common conclusion that one of the elements that can prevent the challenges associated with Industrial Society 5.0 may be education with an emphasis on preserving the individual potential (general education) of a person. Such human dimension activity has already played a key stabilising role in the IR 4.0 format (Bujang et al., 2020).

The problem of the individual will always remain the No. 1 debatable topic in the system of educational discourse (Varnavska, 2022). A person is a subject of the educational process, which determines their unique status. The purpose of education is focused on people, not on technology (no matter how innovative and effective it may be). Therefore, in the futuristic dimension of educational development, a human-centred priority is being formed. The vectors of innovation, tradition, popularity, or necessity are only concentrated at the point of the intended purpose of education.

Futuristic views in education have a specific positioning in the worldview and mentality. Sri Mariya & Jamaris (2021) note that futuristic directions of educational development are a statement of strengths and weaknesses in learning and the development of a progressive model of educational development based on this knowledge.

The question remains whether innovation in education a purely positive trend is or whether there are problematic aspects in the actualisation of information technology and the digital educational environment.

Nejad & Moradi Bastani (2022) return the discussion to the purpose of education. Education benefits society and the individual on a global and historical scale. This mission of education makes it an existential dimension for which any functional elements under any circumstances will remain only a tool.

Education has historically performed a stabilising function in society, providing the necessary minimum of knowledge, skills, and abilities for people regardless of their status (Bostad & Bondevik, 2023). In this context, education comes into conflict with scientific and technological development, which is focused on the destruction of sustainability and fundamental transformations. Under such conditions, the existential and semantic principles of educational activity are changing. With the widespread use of innovative ICT elements, education is involved in a radical renewal of society, which leads to a certain degree of uncertainty.

When formulating educational strategies, it is important to clearly understand whether society is ready for such an updated content of education. Or should we limit ourselves to the functional segment of ICT in education, without adding the content elements of technologisation to the educational fundamental goals? The answers to these questions will be determined over time when the practical, applied, and strategic impact of technologisation and digitalisation of education on its subjects is determined. The role of technology in education and the preservation of the traditional human dimension of this sphere will depend on how ready people are to accept ICT in education and what status they will give to these elements.

Conclusions and Implications

Thus, the prospects for educational development are inextricably linked to both the individual perception of transformations by the subjects of the educational process and direct changes in the format of the educational environment, accompanied by the active use of ICT and the digital world. Among the key transformations of the educational space are the following:

- operational and practical educational transformations that involve the introduction of ICT elements with the assessment of their effectiveness virtually online;
- educational strategies for long-term planning, which involve large-scale transformations in the educational format and the provision of appropriate resources for the implementation of this process (human, organisational, technological);
- Ensuring individual adaptation of the subject of the educational process to the new conditions of the educational process and creating appropriate public attitudes towards the use of ICT elements in education;
- philosophical and axiological guidelines are becoming as important components of the transformation of education as technological support, as they help to form public opinion on the effectiveness and feasibility of the innovative educational space;
- educational strategies should include indicators of the scale and intensity of the introduction of innovative elements, depending on the readiness of the individual educational environment to accept the proposed changes;
- noting the need to strike a balance between fundamental educational strategies and social trends of a digital and technological nature, which will ensure a balance between the concepts of content and format of education;

- Educational strategies should synchronise educational goals with the formation of a universal worldview and mental attitudes in the world picture.

Suggestion for Future Research

The further introduction of innovative elements into the educational process is an obvious and undeniable reality. The active use of ICT in everyday life extrapolates into the need to involve this format in educational activities. Futuristic models of educational systems are not abstract, but are based on current real trends in scientific and technological progress. At the same time, any innovations in a cultural and historical context require a worldview and mental justification. It is obviously wrong to determine the feasibility of using ICTs or new interpretations of human consciousness in education by simply stating the scale and intensity of this phenomenon in global and everyday life. This can negatively affect the positioning of education in the public and individual consciousness, violating the existentially important principles of the purpose of education.

Therefore, for the future scientific and educational discourse, it is proposed to use philosophical and ideological guidelines for futuristic concepts of education development, which will actualise the following axiological priorities:

- ICT cluster, along with other innovative strategies (in particular, a new interpretation of human potential, consciousness, intellectual level, essential energies) will be positioned as a fundamental segment of the educational process, fulfilling its functional mission on the same (unified or common) terms as traditional teaching methods;
- the human dimension of education is a system of balancing the already familiar dichotomies of "man-science" and "man-technology" in the educational space. The human-centredness of education in the perspective sense is intended to level the potential threats of using scientific and technological progress and transform these confrontations into synergistic interaction, the purpose of which will be a personally oriented, socially useful and civilisationally progressive education system.

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Conflict of Interest

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