



## STUDIES IN THE EXPERIENCE OF PHILOSOPHICAL AND ANTHROPOLOGICAL ANALYSIS OF DIGITAL EDUCATION IN THE REALM OF DIGITAL TECHNOLOGIES

### Abstract

The article deals with the problem of the influence of the digitalization of education on human consciousness and the development trends of modern society. The main approaches of modern philosophy to the formation processes of the world educational space are under research. The authors set themselves the goal of identifying the most important consequences of these processes for human consciousness and the evolution of society. The article discusses the impact of digital education on the structure and functions of traditional educational institutions and the modern human consciousness; attention is paid to the consequences of the digitalization of education for such a historically established social group as the professional intelligentsia (clerisy). The analysis of the problem concludes that a fundamentally new model of the transmission of social experience and scientific knowledge is emerging in the modern world educational space. Traditional educational institutions like schools and universities are giving way to a whole system of network structures. This process is accompanied by the deinstitutionalization of education, the departure of education from some of its historical functions, such as the reproduction of the traditional worldview, the decline in the social status of a university diploma, and the transformation of the clerisy.

*Keywords:* philosophical anthropology, digital education, digitalization, post-industrial society.

### Introduction

Over the past four decades, due to the ubiquity of computer networks and the formation of a shared global information space, there has emerged a phenomenon of digital education - a qualitatively new form of the educational process in which the lecture hall and laboratory of a classical university are first supplemented, and then gradually replaced by network educational resources. Having begun within the framework of traditional educational institutions, education digitalization has gone far beyond it, becoming an integral part of the life of modern society. The rapid development of digital education, the formation of a global education space and the inclusion of historically established educational insti-

tutions in the process have generated several new phenomena and created new risks that have become a severe challenge to both the philosophy of education and philosophical anthropology.

All this has led to the need for a large-scale philosophical understanding of digitalization processes, including their anthropological aspects. Unfortunately, most of the research in this area does not concern these latter or is inadequate. So, there are still questions unanswered: how does digital education change the historically established models of the educational process? How does the concept of personality formation in the course of education change given it? What are the consequences of the education digitalization in the worldview of a modern individual? What are the possible consequences of this process for

the individual? Furthermore, finally, what are the anthropological prospects for the education digitalization process?

This article displays the results of studying fundamental approaches of modern philosophy to find answers to these questions and identify the most important consequences of these processes for human consciousness and the evolution of society. In the course of the study, the trends in the development of digital education in the context of the activities of traditional educational institutions were analyzed, and significant features of the evolution of modern education were identified, like its deinstitutionalization and changes in the functions of the educational process, some conclusions were drawn about the prospects for the university and professional clerisy in the digitalizing world. From the results of the analysis, it follows that in the process of education digitalization, the world educational space has already been formed, which even now has a significant impact on the functioning of traditional educational institutions, and through them - on public consciousness and the structure of society as a whole:

- The institutional basis of education is changing: the global education space makes it possible to acquire the competencies associated with a university diploma outside the framework of traditional educational institutions;
- Unlike school and university education of previous eras, digital education is not focused on reproducing the traditional worldview or its translation into the minds of new generations. Thus, the growing influence of the global education space leads to a weakening of the positions of traditional cultural discourses;
- The expansion of opportunities for non-institutional education leads to the loss of the university's traditional monopoly on the provision of high-quality educational services and an inevitable depreciation of the university diploma. In the future, this may lead to the transformation of the university from a universal educational centre into a content pro-

vider for the educational space and certification and licensing services for experts;

- The spread of digital education leads to the blurring of the boundaries of the clerisy as a group of people whose professional activities used to be primarily associated with the application of their intellectual abilities. As a result, a new type of clerisy is being formed, their essential characteristic being an active role in shaping the information space.

Thus, the significance of digital education for the modern world is not limited to the narrow confines of educational institutions proper. The development of the global education space with a number of university functions transferred to it results in significant changes in society's structure and modern man's worldview.

### Methodology

The article uses a set of philosophical methods to identify the main approaches of modern philosophy to the problem of the digitalization of education. In the research process, both general scientific (analysis, synthesis, induction, deduction) and specific philosophical methods (the unity of the historical and the logical) were applied. While analyzing modern philosophical literature because of the research problem, the abstract analysis method was used, concluding that there is currently a global education space gradually taking over the functions of traditional educational institutions. The method of unity of the historical and the logical allowed us to come to conclusions about the prospects for the impact of education digitalization on the worldview of a human being and trends in the development of society.

### Research Results

The formation and development of the digital society are accompanied by radical changes in all spheres of human life. Since the eighties of the last century, information networks have entan-

gled an increasing number of different social institutions penetrating into such areas of professional activity and everyday life previously considered not covered by the world of technology, such as interpersonal communication. The global digital revolution has transformed the world throughout one generation and determined the development trends of humankind for many decades to come. Education has become one of the most striking examples of these transformations. Over the past decades, in economically developed countries, digital technologies have become an integral part of the educational process. Thus, Melissa Bond notes that in the second half of the 2010s in Germany, 99% of students had constant access to the Internet, 99.4% of schoolchildren used digital learning technologies on average 114 minutes a week when working from home, and 14 minutes a day at school (Bond, Marín, Dolch, Bedenlier, & Zawacki-Richter, 2018). According to Paola Ascencio Ojeda, the digital literacy of first-year students is becoming a necessary factor for entering university life. Accordingly, the digitalization of education is becoming one of the most important subjects of modern social and humanitarian research (Ojeda, Morales, & Albalat, 2019).

Here and below, by digital education, we mean a new form of the educational process, with a characteristic feature being the formation of the student's competencies mainly through interaction with network educational resources, including open online courses posted on international Internet sites. Accordingly, the digitalization of education includes the spread of digital education and its penetration into traditional educational structures and is manifested in the expansion of the audience of online courses. However, it should be noted that modern philosophy has not yet developed a generally accepted terminology in this area and therefore uses in close meanings such concepts as artificial intelligence in education, e-learning, educational technologies and several others.

By the end of the twentieth century, educational institutions were one of the most stable

structures, ensuring the stability of society and continuity between the various stages of its development. In their historical form, they assumed the transfer of moral values, social experience and a comprehensive set of knowledge, scientific knowledge occupying the central place within the framework of direct interpersonal interaction between the two traditional sides of the educational process - those who teach and those who are taught. Such an educational model is rooted in the mists of time, implementing in its entirety the most ancient mechanism for transferring knowledge - the teacher-student mechanism. Educational institutions cover a large part of human life, from preschool institutions to numerous structured systems of additional professional education, retraining and advanced training (Moiseev, Pastukh, Nitsevich, & Stroev, 2021). In almost all countries of the world, the activities of these institutions were strictly regulated, including the transmission of the principal social values forming the basis of an individual's worldview. Due to this, the education system guaranteed the preservation of historically established forms of social consciousness, mutual understanding (at least relative) between generations, the stability of scientific and philosophical schools and continuity in the activities of political and economic institutions (Sharafutdinov, Gerasimov, Akhmetshin, Okagbue, & Tagibova, 2020).

The digital revolution in education was born within the framework of this system, and so far, a large part of the multimedia educational space is being formed and operated by its structures. However, it quickly went beyond the initial institutional framework, which, in turn, led to qualitative changes not only in the concepts of education but also in the consciousness and worldview of the modern man involved in this process.

Paradoxically enough, this aspect of education digitalization is still relatively poorly covered in philosophical studies. The digitalisation processes of education are studied mainly in terms of their value in achieving educational goals (Alekseev, Katasev, Khassianov, Tutubalina, & Zuev, 2018) and their role in the educa-

tional process management. Thus, in particular, the results of a review of more than two thousand publications on the use of artificial intelligence in higher education by Olaf Zawacki-Richter, Victoria I. Marín, Melissa Bond and Franziska Gouverneur (2019) show that these studies are concentrated in four broad areas: “profiling and prediction, intelligent tutoring systems, assessment and evaluation, and adaptive systems and personalization” (p. 1), that is, in areas related to the creation, use and efficiency of these technologies. According to Melissa Bond, research in digital education is mainly aimed at evaluating its effectiveness and identifying its advantages over traditional forms of educational activity. Melissa Bond does not come to a definite conclusion about the effectiveness of digital technologies in higher education but, at the same time, notes the presence of institutional transformations in German higher education – not yet fully covered by the research – as a part of a similar global process (Bond et al., 2018). At the same time, researchers note the presence of individual voices in the scientific and pedagogical community, calling for the preservation of the human dimension in education in the era of digitalization. Thus, Linda Castañeda and Neil Selwyn (2018) point out that digital education’s cultural, emotional, spiritual and environmental aspects are suppressed in the scientific discussion around educational technologies. The authors of the 2019 UNESCO report pay attention to the human dimension of digital education (Pedró, Subosa, Rivas, & Valverde, 2019). Cagatay Catal and Bedir Tekinerdogan (2019) pay attention to the issue of the role of digital education in the modernization of educational institutions, noting, in particular, the inclusion of universities in global scientific and educational communities. Some authors pay attention to some socio-anthropological aspects of digital education in connection with its risks. Thus, Luci Pangrazio, based on the material of the network activity of 276 adolescents in Australia and Uruguay, concludes that the development of digital literacy at the age of 7 to 12 years is a necessary condition

for the formation of cybersecurity (Pangrazio & Gaibisso, 2020).

However, in such publications, as a rule, priority attention is paid to such subjects as, for example, the elimination of direct interpersonal communication due to the spread of digital educational technologies and their consequences. So, Shane J. Ralston (2020) notes that the possibilities of digital education, particularly educational blockchain technologies, are limited since they cannot provide such depth of comprehension as implied when working with a teacher. Ling Li notes the relationship between smartphone addiction and student learning efficiency (Li, Gao, & Xu, 2020). The issues of changes in the worldview of a modern man, the mechanisms of its translation and reproduction, and new trends in the public consciousness due to the digital revolution in education remain primarily out of the field of view of researchers. As shown in the review of publications on the role of transmedia in education carried out by Juan González-Martínez, the vast majority of authors working in this direction either focus on the educational capabilities of the subject of digital education or on the essence of transmedia resources used in education, or on the process of using transmedia in education, while leaving practically out the impact of digital education on the essential characteristics of a person and society (González-Martínez, Esteban-Guitart, Rostan-Sanchez, Serrat-Sellabona, & Estebanell-Minguell, 2019).

Terry Anderson and Pablo Rivera-Vargas (2019) note that there are currently four distance education contexts: distance education without virtual environments; distance education with complimentary virtual environments; teaching in dual or bimodal environments; teaching in virtual environments (e-Learning). The authors see the main difference between them in the degree of personal (not mediated by computer networks) interaction between the teacher and the student. The roles of these traditionally distinguished sides of the educational process in the existing literature are interpreted in the traditional sense. The teacher acts as the initiator of the learning



process and its leader, and he conveys to the learner the content of the learning process, which he more or less actively perceives and assimilates (Kamaeva, Zemsh, Gilmanshina, & Galich, 2021). Little attention is paid to the change in the content of these roles under the influence of digital technologies in the literature studied by the authors. Terry Anderson and Pablo Rivera-Vargas themselves identify five main elements of the transition to a modern model of digital education, motivating a critical perception of this process: "...higher attrition rates and especially in those distance education systems that provide low levels of student support"; difficulties in the field of student interaction with educational content; unfulfilled promises in the field of reducing the social pressure of the classroom due to the comprehensive introduction of interactivity in education; "Copyright confusion"; and finally, overly optimistic and even, according to the authors, utopian views of the educational community on the possibilities of digital education (Anderson & Rivera-Vargas, 2019). The spread of digital education leads to several risks associated with the unauthorized use of students' data, threats to their health, etc. Actually, anthropological aspects of digital education remain out of consideration. Florence Martin notes that from 2009 to 2018, the most significant number of studies in the field of digital education was devoted to particular pedagogical problems, such as the characteristics of a teacher or interaction in education, while socio-anthropological issues, in particular the issue of the impact of digital education on culture, occupied one of the last places in terms of the number of publications.

With this approach, the main object of research is educational resources that owe their existence to the digitalization of education. The audience of these resources is studied mainly from the efficiency or inefficiency of solving the problems for which these resources were created (Tikhonov & Novikov, 2020; Mikhailov, Tikhonov, & Margarov, 2022). Thus, in characterising educational technologies, Amy T. Nusbaum and co-authors focus on their role in reducing the

cost of education and managing student learning activities: "A college education is becoming increasingly expensive, and the burden of this cost is often felt disproportionately by marginalized students. ...Open educational resources (OER; free, openly-licensed course materials) are often proposed as a solution to this problem" (Nusbaum, Cuttler, & Swindell, 2020, p. 1). The authors emphasize the increase in the availability of education for representatives of low-income segments of the population as a result of the use of open educational resources: "We found no significant differences between textbook groups on course performance or perceptions of the book, but marginalized students (first-generation students and/or ethnic minority students) reported engaging in negative behaviours (i.e., dropping a class) more often than their peers as a result of textbook costs. These findings suggest that textbook costs disproportionately affect our most vulnerable students, and the use of OER may be one solution to this problem, particularly given the equivalent performance across textbook groups" (Nusbaum et al., 2020, p. 1). Similar approaches to the problems of e-education are presented in other recent publications devoted to this problem. For example, Yao-Ting Sung focuses on the use of mobile devices in education and their impact on their effectiveness. He notes the need to develop pedagogically oriented software to successfully solve educational problems at all stages of the educational process. However, at the same time, mobile education itself (as one of the aspects of digital education) is being explored to solve educational problems (Sung, Chang, & Liu, 2016). The researchers' attention is drawn to the use of massive open online courses (Wang & Zhu, 2019). Many authors consider in their publications the effectiveness of digital educational technologies concerning specific areas of training (Atamanova, Bogomaz, Kozlova, & Kashirin, 2015) and the impact on student achievement (Reinhold, Hoch, Werner, Richter-Gebert, & Reiss, 2020), etc.

David Buckingham (2020) considers a number of socio-anthropological aspects of digital

education. Like Terry Anderson, he points to the fantastical nature of many visions of the future of digital education, with particular emphasis on using these visions for political purposes. On the one hand, he notes that digital education serves more for testing than for learning in most cases. Often its use is formal; in other words, the possibilities and promises of digital technologies are not fully realized; on the other hand, the use of digital technologies leads to a decline in the interaction between the teacher and the student, which gives the author a reason to talk about the end of education. In his opinion, the dreams associated with digital education are turning into a nightmare. Pointing to the dominance of a small number of large companies in the media market, David Buckingham expresses concern that education may eventually become a conduit for their influence on all aspects of public life. He points to the high risks associated with the spread of media literacy among children and the inability of the educational system to counter them. In his opinion, the wide use of digital education leads to a decline in critical thinking among students to a high degree of influence of “fake news”, which, in turn, is a symptom of large-scale political, social and economic changes in the modern world. For education, this means reframing the question of choosing between truth and untruth in forming educational content (Buckingham, 2020). The author concludes that there is a need for new forms and mechanisms of regulation in education, which would make it possible to respond more effectively to the challenges of educational tasks (Sung et al., 2016). The researchers’ attention is drawn to the use of massive open online courses (Wang & Zhu, 2019). Many authors consider in their publications the effectiveness of digital educational technologies concerning specific areas of training (Atamanova et al., 2015) and the impact on student achievement.

This state of the problem of philosophical and anthropological aspects of digital education is primarily due to objective factors and the comparative novelty of the problem. Digital education has only entered the life of humankind in the

latest twenty years, and the first generations with worldview formed under its influence are only now declaring themselves as an active part of the global society. As Olaf Zawacki-Richter notes in his review, “...The full consequences of AI development cannot yet be foreseen today, but it seems likely that AI applications will be a top educational technology issue for the next 20 years” (Zawacki-Richter et al., 2019, p. 20). Many other leading experts share this view in various fields of education. Nevertheless, even today, we can mention many facts characterizing not only new trends in the development of the modern worldview but also the massive impact of digital educational technologies on the minds of people and significant changes that are already outlined in connection with this in the structure and functioning of education as a social institution. We will take a look at some of these trends below.

#### Deinstitutionalization of Education and Digital Educational Technologies

First of all, it should be noted that the institutional basis of digital education has changed qualitatively over the past decades. Now it is already possible to speak with confidence about the leading role in developing open educational communities, not limited by the traditional school or university. In particular, one of the largest such communities, “The Open Education Consortium”, positions itself as “... a non-profit, global, members-based network of open education institutions and organizations” (About the Open Education Consortium, n.d.). According to The Open Education Consortium, the purpose of this community and its ideal is a world in which everyone, anywhere, has access to high-quality education and training, where education is seen as a necessary and universal social good, while noting that “... educational institutions’ capacity limits the current provision of education, consequently, this resource is available to the few, not the many. The digital revolution offers a potential solution to these limitations, giving a global

audience unprecedented access to free, open and high-quality educational resources” (About the Open Education Consortium, n.d.). The annotation of another educational community also notes several advantages of digital education over traditional: “The student-centred nature of asynchronous online learning requires students to be actively involved with and take more responsibility for their own learning” (OER Commons & Open Education, n.d.). The moderators of the educational platform indicate that “...In addition to their regular duties as learners, students are required to:

- Become proficient with the technology required for the course;
- Use new methods of communication with both peers and instructors;
- Strengthen their interdependency through collaboration with their peers;
- Students use background knowledge and then interpret, implement, analyze, and evaluate it to create a new product” (OER Commons & Open Education, n.d.).

Thus, despite the stated desire to synthesize the heritage of traditional educational institutions and the latest technologies of the twenty-first century, the non-institutional nature of digital

education is seen as an advantage. Of course, as noted by many researchers (Mercer, Hennessy, & Warwick, 2019), new technologies in education actively penetrate traditional educational institutions’ activities. However, in fact, this leads to the transformation of these latter, to the erosion of their historically established model. According to the authors directly involved in promoting digital educational resources, “Digital classrooms are considered the vital element in promoting and improving traditional teaching and learning methods. ...digital class transforms the education process, and cause universal interactivity between teacher and learners and among learners themselves, all around the world” (Mashhadi & Kargozari, 2011, p. 1178). The practice of more and more comprehensive spread introduction of digital education in the university results in a much larger number of various courses becoming available to the student than even the largest and most prestigious educational institution can offer. Indicative in this regard is the statistics provided by the moderators of the educational portal “OER commons” in the subject areas of electronic educational resources published on this portal (OER Commons & Open Education, n.d.) (Fig. 1).

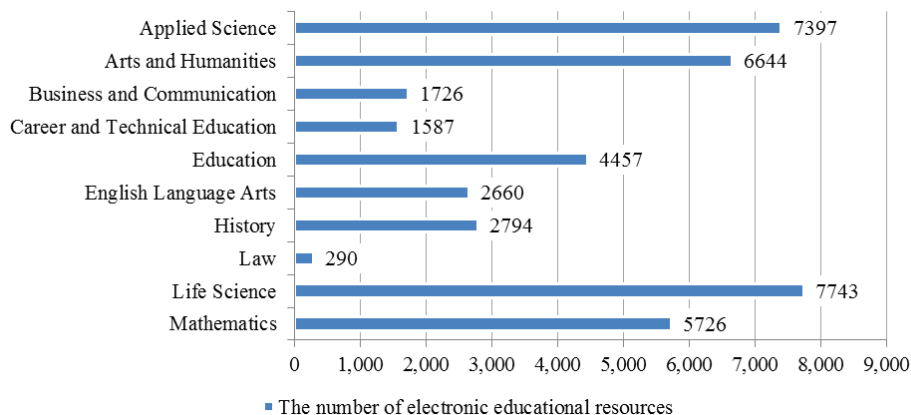


Figure 1. Statistics of the OER commons for subject areas of electronic educational resources. Source: OER Commons & Open Education (<https://www.oercommons.org/about>).



Obviously, such a comprehensive and all-inclusive educational space goes far beyond the university's capabilities, and turning to it for competencies, the further the student will go, the more he will get out of the influence of the university tradition. Several researchers, in particular, by Linda Castañeda and Neil Selwyn (2018), note a higher than ever degree of individualization of education due to the exit of students from the formal educational group into the global education space.

#### Digital Education and Reproduction of the Traditional Worldview

One of the results of this process is the elimination of the worldview component from education, while its reproduction used to be one of the functions of the traditional educational system. Digital education focuses on the distance formation of competencies, which are necessary, first of all, for professional activities. Thus, most traditional education functions remain on edge or even outside the mainstream, one of the principles. Education in the digital world is becoming a part of the postmodern world, being included in the process of deconstructing global discourses by refusing to support them (Vorontsova, Arakelyan, & Baranov, 2020). This is facilitated by the fact that both developers and consumers of digital educational resources are primarily representatives of the generations of the nineties of the twentieth - the first decade of the twenty-first century, that is, the generations least of all influenced by traditionalism. Thus, the transmission of the traditional worldview utilizing institutional education remains limited to the walls of the university lecture room. In contrast, the wall-free global audience of the digital education space reflects and retransmits all variants of the view of the world and the place of a man in it, shared among the so-called "Generation Z".

At the same time, the possibilities of digital education in the field of deconstruction of traditional discourses, as recent studies show, should not be overestimated. Several authors directly

point to the persistence of the influence that the cultural characteristics of students have on the functioning of educational institutions in the era of digital education. The fact that the cultural characteristics of students continue to influence learning outcomes in a digitalizing world is indicated, in particular, by Ivo J.M. Arnold (Arnold & Versluis, 2019). The importance of the cultural characteristics of students in the use of modern educational tools is also indicated by Alexander Whitelock-Wainwright (Whitelock-Wainwright et al., 2020).

#### Digital Education and the Status of a University Diploma

Another equally important consequence of the digitalization of education is the change in its value status and, consequently, its role as an indicator of the status of an individual. The universal accessibility of open digital education radically changed the historical situation when the opportunity to get higher education was a lot of the few. The non-institutional nature of open educational resources makes it possible to receive high-quality education with all relevant competencies, flexibly using one's own time and not giving up one's usual professional and social activities. Labour costs for education have been significantly reduced and continue to decline with the spread of mobile technologies and the development of specialized software allowing the access to open educational resources anytime from anywhere in the world in any way most convenient for the subscriber - textual, audiovisual, in the form of an electronic book, business game, chat or quest. Accordingly, before the beginning of the digital era in education, possessing a university diploma automatically meant at least potentially belonging to a higher social stratum than those who do not have it.

In contrast, today, the value of institutional higher education has noticeably decreased. This situation makes several researchers wonder about the future of institutional education in a modernizing world. The contradictions between the need

for formal higher education and the declining role of traditional educational institutions are noted, in particular, by Mark Murphy and Cristina Costa (2019), according to whom the spread of digital education "...has the potential to change the shape and substance of public intellectualism" (p. 205). Moreover, the mass consciousness gradually develops and strengthens the understanding that a person who has not received institutional higher education in its traditional form in many areas of social life but who has mastered the necessary competencies due to open digital resources may be more successful than a university graduate.

First of all, of course, this applies to areas of activity related to managing and using the global information space. In contrast, many significant social areas, including those ensuring civilization sustainability - scientific creativity, medicine and health care, engineering, and the like - still require and will require sophisticated theoretical and practical training, which so far only traditional educational institutions can provide. Nevertheless, it is precisely the activity in the informational sphere that has the most significant influence on the consciousness of modern society, and it is precisely its results that are most obvious to the modern mass carrier of this consciousness. In addition, educational technologies keep improving, including an increasing variety of ways to provide a superficial mastery of theory and the formation of all kinds of practical skills, including those not directly related to the use of the global information space. For example, David Conde-Caballero, Carlos A. Castillo, Inmaculada Ballesteros-Yañez and Lorenzo Mariano-Juárez (2019) point to the successful use of educational blogs in nursing education at the University of Castilla-La Mancha, one of the areas where University education has been indispensable for some time. It can be expected that, over time, this process will cover all areas of educational activity, and the quality of digital distance education will be equal to that of classical university education. If this happens, the former prestige of the university diploma will be lost, and the uni-

versity, having lost the monopoly of a single educational centre, may retain its importance as a provider of high-quality educational resources and an attestation centre that provides an assessment of knowledge gained through digital educational technologies and licensing of professional activities in areas where it is provided by law.

#### Transformation of the Clerisy

As noted above, the global education space is taking over the functions that previously belonged undividedly to traditional educational institutions. The advantages of distance digital education are becoming more and more tangible; its shortcomings compared to the classical university are receding into the background and are gradually being eliminated. An increasing part of society is covered by the influence of digital educational technologies, replenishing the audience with relevant resources, portals and web communities. The role of higher education in social positioning is declining, while the importance of networking skills, including educational ones, is growing.

A direct consequence of this is blurring the boundaries of such a social group as clerisy. Until the end of the twentieth century, it was necessary and, at the same time, a relatively small part of society. By uniting people whose professional activities were primarily associated with the use of their intellectual abilities, they formed a kind of intellectual framework of society, playing a decisive role in shaping public consciousness. The representatives of the intelligentsia formulated ideas that later became the basis of the worldview of their contemporaries, preserved traditional and offered new social values, relayed them to the next generations in educational institutions, and popularized them through works of literature and art and the media. The comparative smallness of this social group was ensured by the difficulties of obtaining a higher education, which served as one of its distinguishing features. Being the custodian and distributor of knowledge, primarily scientific knowledge, cleri-

sy in many countries considered themselves a chosen community, performing a particular social mission on which the stability of civilization and continuity in its development depended.

The widespread of open-domain and non-institutional digital education technologies undermine the very basis for the existence of such a community. An information monopoly becomes impossible in a world where any amount of knowledge is available to anyone in any place and at any time, requiring incomparably less labour to master than it used to in the pre-digital era. The production and distribution of knowledge are reaching a qualitatively new level, and the professional intermediary between the cognitive sphere of civilization and an ordinary member of society is losing its significance. The role that used to belong to clerisy is moving to the global information space and digital education systems. The “capital of dormant knowledge” previously scattered among the representatives of the community of intellectuals worldwide (Bandyopadhyay et al., 2016) is awakening and becoming the property of many people who previously did not have access to it. A new bank of social knowledge is being formed - impersonal, non-institutional, comprehensive and publicly available, possessing incomparably greater authority than the former clerisy and an infinitely more diverse arsenal of means to shape the consciousness of each individual and the society as a whole.

However, this process does not mean the disappearance of clerisy as such. Instead, we can talk, as in the case of the university – its source and home, about changes in their nature and functions as a social group. The former professional intelligentsia is being replaced by a new type of only partially professional clerisy, their essential characteristic being an active role in shaping the information space, which unites representatives of most diverse communities, from researchers to bloggers, so one and the same individual can simultaneously enter into many of the communities. In the educational field, this new clerisy acts as a developer and expert of ed-

ucational resources, providing the necessary quality of digital education and promoting it in traditional educational institutions.

## Discussion

An analysis of the scientific literature on the topic of the study has shown the following coincidences with the conclusions of the authors of this article. For example, scientists point to traditional educational institutions’ complex transformation and subjects. A modern teacher must have general and pedagogical digital competence and new professional digital competence to actively use the possibilities of the digital world in his work (Starkey, 2020).

The message of the authors of this article about the special role of digital space as a new independent subject in the educational process is also confirmed in scientific publications. For example, scientists point to an essential skill in the work of a modern teacher - the ability to manage the digital learning environment by improving digital content and developing ways of digital communication with students. Teachers should now consider the quality and content of the digital environment, which largely determines the educational process (Villarreal-Villa, Garcia-Guliany, Hernandez-Palma, & Steffens-Sanabria, 2019).

Other scientists write about the change in the traditional educational teacher-student model, with the transfer of knowledge and experience occurring exclusively based on traditional educational institutions. An open, shared, inclusive digital space expands the boundaries of the traditional educational process and allows the student to build unique, individual educational trajectories (Catalano, 2019). This is also consistent with the conclusions of the authors of this article.

As scientists note, the deinstitutionalization of classical educational institutions takes place via digital technologies. All areas of the economic activity of an educational organization are subject to automation and digitalization (Sharipov, Tumbinskaya, & Safiullina, 2021). This corre-

sponds to the conclusions of the authors of this article about the penetration of digital technologies into all areas of educational activity and the acquisition of a new quality of the teacher-student model. The traditional model now takes the form of teacher-digital environment-student. Accordingly, the digital environment requires particular ways of communicating and protecting information (Ismagilov et al., 2019). Such technologies are developing and modifying the requirements and rules of work of educational institutions. To access the information environment, you must follow all established procedures and meet certain criteria (Panischev et al., 2020). This confirms the thesis statement of the authors about the emergence of a new independent subject in the communicative connection between a teacher and a student - a digital educational space. Like capital under capitalism, which "owns" an employee by appropriating his labour force, the digital education space sets its own rules of the game by appropriating the knowledge and skills of the whole society.

Moreover, it is safe to note that the functions of institutional educational structures are changing and focusing on the processes of control, coordination and certification of students only in certain areas of activity where it is essential to ensure the verification of physical skills and abilities. Even the most critical function of universities and schools - the transmission and formation of a traditional worldview - depends on the digital educational environment. Other scientists also note it. The formation of legal value systems among students depends on modern digital technologies broadcasting desirable models of behaviour in a person's social and economic activities (Saraev, Pratsko, Korolenko, & Marchenko, 2021).

The following authors' idea about the impact of the digital educational environment on students' professional future is also confirmed in the scientific literature. Scientists note the unique nature of the digital generation and the difference in professional training processes in the modern world. Digital education implies a broader range

of competencies and dynamically changing professional guidelines (Zeer, Tserkovnikova, & Tretyakova, 2021).

Also, scientific publications indicate the relevance of anthropological aspects of digital education. It is proposed to use three aspects of professional training: cognitive, moral, ethical, and value-based. This will increase the motivation of students when using digital education. This confirms the authors' statement about the erosion of the functionality of traditional educational organizations and the increasing role of the digital educational space, not only in the field of shaping the professional future but also in the formation of the individual, acquiring the ideological foundations of one's life activity (Gabdulhakov, Novik, & Yashina, 2020). The status of higher education is also gradually changing.

Along with digital technologies and the expansion of the digital education space, the requirements for the workforce and specialists are increasing. Just a higher education diploma is no more extended enough to find attractive positions in the labour market. This indicates a decline in the status of higher education. Like the authors of this article, scientists note in their publications that the digitalization of education has not only led to a change in the ways of teaching at universities but has also forced teachers to think in a new way, change the philosophical foundations of their pedagogical activities (Jayadi & Abduh, 2020).

However, it is worth agreeing with several scientists who note that the rules for forming the ideological and ethical foundations of people's behavior in the digital environment have not yet been determined. There are many adverse effects in the process of socialization in a digital society. There are cases of aggressive and deviant behaviour of young people in the digital environment (Tolstikova, Ignatjeva, Kondratenko, & Pletnev, 2021). This again proves the correctness of the authors' conclusions in this article. They state the crisis of traditional educational institutions and the instability of modern digital education, its underdevelopment, lack of system and, in some

cases, the danger to a person and society.

There are also changes regarding the translation of standards of behavioural norms. In the era of traditional education, such standards of behavioural norms were broadcast by people with higher education. In contrast, in the era of digital education, with the lowering of the status of a higher education diploma, it is difficult to say which factor will be dominant in determining the standards of behavioural norms. Therefore, the authors of this article also agree with scientists' ideas about the high priority of social responsibility of digital education (Vásquez Ibáñez, 2019). This is since digital education is a relatively new but dynamically developing phenomenon. Digital education has gained momentum during the coronavirus pandemic and the need for remote learning and work (Kaputa, Loucanova, & Tejerina-Gaite, 2022). At the same time, scientists note that digital education, along with cost reduction, also leads to a decrease in the ability for personal communication. This confirms the authors of this article that shortly, new social structures may arise, setting the rules of the game in society and associated with the digital transformation of education (Zelentsova & Tikhonov, 2020).

Thus, most of the scientific results and conclusions of the authors of this article are confirmed in the publications of other scientists. At the same time, debatable points remain in studying digital education's anthropological and philosophical foundations.

### Conclusion

In the course of the study, the authors have identified the main trends in the development of education related to the processes of its digitalization. These include: firstly, the deinstitutionalization of education associated with the formation of a shared global education space, the capabilities of which already now in many areas significantly exceed those of traditional educational institutions and continue to expand; secondly, the decrease in the role of education in maintaining

and reproducing the traditional worldview; thirdly, a significant change in the status and role of the university in education; fourthly, the transformation of the intelligentsia and the formation of a new type of clerisy. We would also like to note that many aspects of the digitalization of education still require more detailed research. Thus, for example, the changes in public consciousness brought to life by digital educational technologies, the prospects for the evolution of social structures in the light of the spread of digital education, etc., are still insufficiently studied.

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## ABOUT AUTHORS

**Almaz GAPSALAMOV** - PhD in Economics, Associate Professor and Head of the Economics and Management Department of Elabuga Institute of Kazan Federal University, Republic of Tatarstan, Russian Federation.

ORCID ID: <https://orcid.org/0000-0002-8045-623X>

E-mail: elvir@mail.ru

**Egor GROMOV** - PhD in Philosophy, Associate Professor of Philosophy and Sociology Department of Elabuga Institute of Kazan Federal University, Republic of Tatarstan, Russian Federation.

ORCID ID: <https://orcid.org/0000-0003-4223-3665>

E-mail: gromov.egor.v@yandex.ru

**Vladimir STROEV** - Dr. of Sciences in Economics, Professor, Rector of the State University of Management, Russian Federation.

ORCID ID: <https://orcid.org/0000-0003-2887-1767>

E-mail: Vstroev@yandex.ru