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## Ethical Considerations of Digitalization in Education: The Coming Together of Social, Cultural, and Philosophical Dimensions

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**Abstract.** The article is aimed at determining the place of ethical issues within the frame of digitalization in education. To achieve this objective, a generalization of secondary sociological data and logical analysis together with elements of phenomenological reflection were used as the main methods. The authors applied the content analysis tools to various kinds of publications as well as to the survey data obtained by scholars of the Department of Philosophy, Sociology and Religious Studies at the V. P. Astafyev KSPU. A range of objections to digitalization were divided into groups and the most important issues of deep concern to the participants of the educational process were identified. The ethical challenges have been shown not to indicate the incompatibility of digital technologies with human qualities, though the lack of experience due to the force-majeure situation in which innovations are taking place is obvious. Social and moral capacity of the digitalization in education, furthermore, was demonstrated. Also, the distance learning format was judged to be valuable as some space for monitoring the educational process. The digitalization of education is a promising strategy that contributes to the development towards the prevalence of intangible values, although gives rise to a wide range of moral collisions.

**Keywords:** digital ethics, moral choice, dehumanization, distance learning, digitalization.

Research area: social philosophy; cultural studies.

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## Этические ракурсы цифровизации образования: единство социальных, культурных и философских аспектов

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**Аннотация.** В статье проясняется место этических проблем в структуре цифровизации образования. При решении поставленной задачи в качестве основных использовались такие методы, как обобщение вторичных социологических данных и логический анализ в сочетании с элементами феноменологической рефлексии. Был предпринят контент-анализ различного рода публикаций, а также данных опроса, полученных сотрудниками кафедры философии, социологии и религиоведения КГПУ им. В.П. Астафьева. Весь массив возражений, выдвигаемых против цифровизации, был разделен на группы, и были определены наиболее важные вопросы, волнующие участников образовательного процесса. Показано, что возникновение этических проблем не говорит о несовместимости цифровых технологий с человеческими качествами, однако имеет место отсутствие достаточного опыта, проявившееся в формальной ситуации, в которой происходят инновации. Напротив, продемонстрирован социальный и моральный потенциал цифровизации образования. Кроме того, формат дистанционного обучения оказался ценным в качестве пространства для мониторинга образовательного процесса. Цифровизация образования является многообещающей стратегией, которая способствует развитию в направлении преобладания нематериальных ценностей, хотя и порождает широкий спектр моральных коллизий.

**Ключевые слова:** цифровая этика, нравственный выбор, дегуманизация, дистанционное образование, цифровизация.

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### Introduction

If treated as not intrinsically a technicality tantamount to some training aids and tools, digitalization in education implies the expansion of cyber space (virtual reality) to the entire process of transferring knowledge to new generations

and has an ongoing impact on the individual and society, on culture and mental states. All the expressions of humanity are transformed (maybe even deformed): rationality, creativity, communication, sociality, symbolic interaction and, to crown it all, some physical attributes.

Digitalization of education, which was catalyzed by the circumstances of the coronavirus disease 2019 global pandemic (Kislov, 2020), should be considered as a much-needed and long-overdue process which was economically, technologically and mentally prepared (Reis et al., 2018).

Systematic digitalization in Russia should have been launched a couple of decades ago. Unfortunately, we missed our chance to rapidly achieve a historic breakthrough that was going to happen with the advent of the current information age. We failed to take opportunity of a second-wave modernization country. One of the crucial advantages of such modernization is a good mix between effective innovative development and sustaining traditional value systems (vivid examples are given by the Far Eastern civilizations). There has been neither enough political will nor responsiveness of the elites, including the pedagogical establishment. This article, however, is not intended to answer the question of what exactly entailed the delay: national specificities, a slowness of the bureaucratic machine or someone's disinterest in progressive changes. We would only highlight that the crisis mode of introducing distance learning caused serious disruptions both in the economy as a whole and in education, therefore, triggered resistance to change on the part of many important players in the educational process, all the more so because in our country the policy of digitalization has not been given any sound moral and philosophical basis (Strokov, 2020). Both finance and specific programs were lacking (Starichenko, 2020).

### Theoretical framework

At the present moment the discussion about whether digitalization is a good or evil for education is far from finished. Nevertheless, the main phenomenological ideas being used as guidelines (Husserl, 1970; Eddles-Hirsch, 2015), the bulk of objections to the large-scale changes can be separated into several clusters.

The first cluster should encompass statements and arguments concerning technical difficulties and other circumstances, such as unavailability of resources, lack of skills in equipment handling (Daniela, 2020). Criticism,

actually, contributes to improving the quality of the innovation process and accounts for at least 80 % of all negative comments found in academic publications and in mass media.

The second cluster of counter-arguments is much more significant. It is targeted precisely against digitalization and its most striking case – distance learning (Fojtik, 2018). In this group, two subgroups of statements can be more or less clearly differentiated.

The pieces of the first bunch are rooted in deep doubts about the achievability of relevant results in principle (Bejinaru, 2019). According to those who have these doubts, proper knowledge and skills are not ensured by the distance education form which meets neither narrow cognitive tasks, nor, especially, general educational ones. Important elements of IT technologies, of course, are useful, but only in small doses and in a secondary role: “a computer will not replace a book”, “you can't do math in your head”, “natural objects must not be replaced with virtual ones”. After all, such estimates derive from a bad experience but it doesn't tell an apparent or implicit disrespect of technical progress.

As to the second subgroup, it runs the gamut of concerns for both the fate of the education system as a part of culture, and the moral character of a person (Maniakovskaya, 2019). The preservation of humanity in a human being means, first of all, maintaining a certain value system (or at least its core). The preservation of the current physical organization, which is also discussed, is still subordinate to the first task. Thus, avoiding cyborgization is motivated by probable losing the ability to “humanly” treat good and evil or the meaning of life, and not by a threat of intellectual degradation. With this in mind, it seems appropriate to focus on ethical challenges. Since the ethical and axiological aspects of digitalization come to the fore, ethical issues become cross-cutting and decisive. Suppose, it is claimed that distant training is accompanied by no adequate control. The problem seems to be purely tutorial or didactic only at first glance. In fact, the case also holds ethical implications, and the genuine solution depends on the readiness and willingness to make a certain moral choice. In an environ-

ment of digitalization, moral hazards and social risks that a person is exposed to are multifarious. This set includes not only the temptations provoked by the deficiency of proper control, but also an increase in alienation, new forms of inequality, security threats (access to private data, manipulation of consciousness, etc.).

### **Statement of the problem**

The purpose of our search is to explore ethical implications as cross-cutting and decisive factors determining the impact of digitalization on education. Has digitalization any social, cultural and moral capacity for humanization of education, moreover, for improving human qualities or for the development towards the prevalence of intangible values? In this regard, it is necessary to understand what exactly is especially worrisome for participants to the educational process and then assess these concerns.

### **Material and methods**

A large body of highly professional scholarly publications (Horst et al, 2012; Siemens et al., 2015; Führen, 2020) alongside with mass media materials and Internet resources (Forum, 2021) were analyzed to explore how the key stakeholders of the educational process ethically view switching the latter to online mode. In addition to that, the results of interviews or surveys recently conducted within the walls of Krasnoyarsk State Pedagogical University were relied upon, with various pools of respondents being inquired. Generalization of secondary sociological data, content analysis and logical analysis together with elements of phenomenological reflection aimed at interpreting the meaning of comments about the digitalization in education or about its consequences were employed. Qualitative methods therefore were involved largely.

### **Results and discussion**

In the context of digitalization of education, society is confronted with a number of closely interlinked moral and ethical-social challenges. An urgent need to develop digital ethics as a new area of research and social practice is becoming topical (Efimov, Lapteva,

2018; Karakozov, Ryzhova, 2019). Different approaches to things have been suggested, with all the tapestry of mindsets from indifferentism and a technological bias to alarmism being covered.

According to this research, the following trends seem to be the most disturbing and painful for the actors of the education field.

First, the total fragmentation of education gives cause for anxiety. The divide between the instructional (training) process and spiritual growth is deepening. Individual experience is alienated from the collective one (as a result of self-isolation at home or other factors). The teacher is detached from the student (to begin with they may never see each other in person). A rift between rights and duties adds to the loss of integrity. Not only the educational space, but also the study time is intensively fragmented and rearranged. At the same time, currently existing teacher's and student's behavioral patterns are destroyed in conjunction with communication standards. Delegating functions, overusing algorithms, outsourcing, even a mere strengthening of visualization to the detriment of the verbal component, – all these traits, one way or another, affect well-established system of skills and values to lead to an as yet unclear outcome.

Secondly, general dehumanization (Lundie, 2017), machineization and virtualization of instructional activities makes a lot of people worry. In this regard, the implementation of the ethical principles underlying education and educational documents (laws, charters) becomes complicated. Indeed, direct responsibility for wrong educational decisions disappears. Knowledge (without excluding moral beliefs) turns into an object of purchase and sale. Favoritism, nepotism, corruption and other transgressions assume new, hard-to-diagnose forms. It looks like the most profound ethical challenges stem from the fact that in the context of digitalization, preference is increasingly given to virtual reality objects, rather than the physical world to which we ourselves as corporeal beings actually belong. Meanwhile, moral and ethical consciousness is inseparable from human physicality. We do not claim neither that in the new conditions, teachers and students are

destined to lose mutual trust, nor that their indifference towards the interests, dignity and the very life of the Other would lead to the fading-away of the moral subject. One should only pay attention to the lack of historical experience. Cultural adjustment takes time (at least within one or two generations).

Thirdly, the deformation of the socio-cultural context in which the educational process is naturally implemented comes on the agenda. Take at least the fact of the informational overload (instant access to an almost unlimited database) coupled with a shortage of direct communication. This bad combo induces a heap of ill effects: an increase in mutual social alienation, a weakening of empathy, a progressive dependence on gadgets, lack of objectivity in assessing situations, difficulties in establishing the reliability of information (given our inability to locate an information source, and the urgency for rapid decisions), cognitive disorders. Often the learning process runs simultaneously with other types of online and off-line activities, often incompatible with the goals of education.

However, it would be a mistake to take the above judgments and apprehensions for a rejection of new realities. In this connection, the results of survey “Perception, attitude, usefulness and problems of distance learning during coronavirus isolation in 2020” are indicative (Vospriyatie, 2020). Teachers (50 respondents) and students (100 respondents) were inquired during the “first wave” (until June 2020). Informal interviews have shown that dissatisfaction and disappointment are mainly determined by the crisis mode of introducing the distance learning format, not by the nature of the new format itself. But most importantly, it has been found that even these seemingly technical problems have strong ethical implications and are largely eliminated by enhancing moral responsibility of everybody who takes part in the educational process.

At least 90 % of respondents complained about the unpreparedness of educational institutions for the new work style, missing content from servers, broken links and websites, inadequacy of platforms... Many confused the problems of distance learning with the costs of

self-isolation (inability to visit a laboratory and fulfill the grant obligations).

At least 50 % of students and at least 70 % of teachers complained of psychological hardships as well as want of personal contact. Besides, teachers experienced discomfort due to their poor skills to control the audience, absent an eye contact.

The survey conducted among students during the “second wave” was mostly aimed at identifying ethical and educational challenges in the context of distance learning format. About 250 respondents, mostly female (78.9 %), second-year students (53 %) who mastered a computer at a high or sufficiently high level, were inquired. The majority of students (above 90 %) have commented positively or neutrally their adaptation to the distant learning format, their knowledge and motivation to study. The results of surveys, as a rule, match with the results of informal interviews, as well as with previously obtained data. Of course, there were certain difficulties with picking up apt and right terms to conceptualize respondent’s attitudes towards the changes. To prevent impairments, any researcher is known to avoid expressing value judgments and suggesting the good-or-evil opposition, sometimes to confine to asking indirect questions. An interviewer should take care not to impose concepts and meanings.

The experience of distance learning supported by the state in the emergency situation of the pandemic serves as a test-case for innovative technologies, an important step on the way to global digital education.

In accordance with the strategies used and depending on what social projects these strategies are related to, the digitalization of education can bring either benefits or harm. The distance format reduces the burden on the economy and makes education more accessible in some ways, although, on the other hand, it can also have a negative impact. In the digital age, the opportunities for independent study, self-employment and creativity expand. But not everyone is ready to take chance. And again, this is, first of all, because of a certain moral choice, and not because of intellectual or physical inferiority. The network facilitates achievement of equality among users, but also speeds up the stratification of the



educational community. And there are also ethical, not just socio-economic, prerequisites behind these trends.

Institutionalized distance education helps to identify strong and weak points in the university, the vocational education system and the school system, to make diagnosis and recommendations on how to move ahead. In particular, discrepancies between the formal factors of education (programs, place and time, diplomas) and informal ones (the usefulness of knowledge, the effectiveness of communication) become more visible. At first glance, this is due to changes in transaction costs. But there are also more serious reasons: the transition to distance learning has brought to light and accelerated the differentiation between those who strive for knowledge and those who do not exercise due diligence (differences within the student population always took place though). A paradoxical picture is being observed: in the digital environment, moral virtues such as honesty, fidelity, temperance, self-restraint, self-esteem are in great demand.

The move towards the distance-leaning format significantly influences the structure and content of interpersonal relations in the educational system, and, respectively, the tenets of pedagogical ethics. Meanwhile, such phenomena as an involvement of others in the joint creative process (through network communities), an expansion of inclusion opportunities, an increasing importance of informal leadership were given a fresh impetus from the current events and have a powerful moral potential. So, the proverbial “lack of personal contact” cannot be considered as a clearly articulated and proven fact, although a certain dynamics of forms, methods and levels in communication is watched over. But this is a tangential issue. The point is how to enhance moral responsibility for what we do. The student’s responsibility for studying, the teacher’s responsibility for teaching, the management and technical staff’s accountability for the organization of the educational process...

### **Conclusion**

It is too soon to comment on the representativeness of the acquired experience or on

the possibility of a reliable forecast. Uncertainties about the emergence of events in super-complex systems (namely, social ones) create highly-unpredictable outputs. In this regard, we would like to stress the following points.

1. Digitalization in education multiplies and – in a way – reinforces interaction and feedback between participants in the educational process at both local and global levels, reshaping interpersonal networks. Digitalization goes beyond the digitizing instructional material, beyond introduction of new tools to include incessant monitoring of the educational process, its adjustment, data collection and, last but not least, an ongoing transparent dialogue between all parties to the process. For instance, the results obtained during online sessions or surveys allow us to adjust the process and to detect technological difficulties, moreover, to reveal social and philosophical topics. Knowledge becoming multi-actor, responsibility for its quality can no longer be entirely entrusted to administrative structures or certain professional groups.

2. Ethical challenges indeed become cross-cutting and decisive issues across a wide array of hazards and obstacles related to digitalization in education. This is partly due to the very nature of knowledge and learning. Cognitive activity is highly humane and highly moral in itself (Husserl, 1970). It brings up the best traits in a person. It testifies to the coherence between scientific objectivity and moral virtue. Everybody, in turn, who makes a choice for the benefit of others is bound to strive for knowledge, for truth. The moral standing is constituted by itself as a valuable spin-off of a regular educational or research activity regardless of externalities. Be it a presence in the classroom or lying in bed at home, learning is inseparable from raising such qualities as vigilance, commitment, involvement, industry, temperance, patience, modesty, teamwork ability, reciprocity, sharing, tolerance, benevolence, impartiality, intellectual honesty, responsibility, moral leadership ability, coping skills... Since its birth, philosophy has been contributing to four intertwined concepts: the fundamental unity of reason and freedom, hence, the unity of reason (critical reflection) and morality (free

will, moral choice, the meaning of life, respect for predecessors), therefore, syncretism of the personal and the social in knowledge, finally, pedagogical nature of learning as such (Hadot, 2002). Howsoever reconfigured in the new setting, the process of learning never is limited to acquiring a sum of special information, but remains all the same: a means of developing a happy person endowed with spiritually and socially valuable qualities.

3. Some savings in time and costs (no need to use vehicles, to rent premises or to wear out

boots) are usually mentioned among attendant benefits afforded by digitalization, with global dimension of the new educational format being reserved for our grave concern. Rather, the paradigmatic shifts to releasing the educational process from the time and space constraints, to globalization and, at the same time, personalization of education, alongside with some other epoch-making structural transformations would be more appropriate to consider while looking for positive effects of the innovative technologies.

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