Uberization of Education: Critical Analysis

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Abstract

Purpose: To analyze trends in uberization in education and identify possible implications for this area in connection with the introduction of a new digital tool. *Design/methodology/approach*: Based on the analysis of the main trends in modern society and modern socio-philosophical concepts (Beck, W. (2000). Risk Society. On the way to another Art Nouveau. Progress-Tradition.; Bell The Coming of Post Industrial Society, Basic Books, 2008; Castells and Himanen The Information Society and the Welfare State: The Finnish Model, UP, 2002; Perkin, H. (1996). The Third Revolution: Professional Elites in the Modern World. Routledge.) and others, a model for the further development of uberization in the field of education is being built. *Findings*: The development of technology has a noticeable impact on its individual components and on the labor market as a whole. The trend of creating Uber platforms has already found its application in many areas of goods and services, connecting directly the user and the performer/seller, and now penetrates the educational process, helping to realize the interaction between the student and the teacher. At the same time, organizing a similar city communication through the application allows you to organize access to educational services much faster and cheaper. For the student, it is an opportunity to receive personalized help at any time. He himself controls when and how to turn to it. *Originality/value*: Technologizing teacher selection and gradually moving away from traditional education has a number of possible effects that may be associated with changing the role of teacher to consultant or vice versa mentor; the specifics of its assessment and change of priorities in the selection; possibility of automation of part of educational process and replacement of AI teacher; and changing attitudes toward education and creating new inequalities. It is assumed that the role of the teacher and its importance will become much wider, but the number of those who can afford to have a personal mentor is most likely to gradually decrease.

1 Introduction

The rapid development of technology due to the Information Revolution of 1970–1980, and then the Digital Revolution in the middle of 2010, became the basis for serious structural changes in society. A new model of labor relations was gradually formed, where the collective organization of labor, characteristic of industrial society, began to yield to more individual and autonomous. The atypical (non-standard) form of employment began to dominate the labor market, self-employment gained great popularity. The rapid growth of independent employment occurred in the second half of the twentieth century and was essentially a revival of this previously very common form of labor. In addition, the importance of intellectual work and knowledge has increased significantly, while part of physical labor has been automated. However, the development of technology also affects intellectual labor, and now, computers can do work for a person, often doing it faster and more efficiently. With the growth of information system development and

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virtualization processes in post-industrial society in many areas, including labor, production, and educational, new network structures began to form and were rapidly developed.

Technological changes that have taken place in recent decades have a significant impact on the entire social and labor structure, changing the balance between supply and demand, forming new professions and requirements for employees, as well as various organizational and substantive characteristics of professional activity. The new employment model that arose during these revolutionary changes was called "Work 4.0".

2 Materials and Method

This research was based on post-industrial concepts that reflect transformations in modern society under the influence of technologization and its influence on professional activities. At the turn of 1970–1980 there is a new scientific and technical revolution—Information, which became the basis for the development of concepts of a new society: Post-Industrial (Bell, 2008), Information (Castells & Himanen, 2002), Society of Professionals (Perkin, 1996) and Risk Society (Beck, 2000).

During the information revolution, new categories of workers and labor relations are formed, which were reflected in the works of modern researchers. As the most significant concepts regarding the transformation of professional activity, we highlight "The Third Professional Revolution" by Perkin (1996), who described the appearance of a new type of workers—transprofessionals; Florida (2012) on the emergence of a creative class; Standing (2011) writes about the emergence of a precariate.

These concepts formed the basis for the analysis of the impact of digitalization on the field of education and, in particular, the organization of the teacher's professional activities and interaction with the student.

3 Results

The analysis of socio-philosophical literature on the problems of digitalization of society as well as the main trends in the labor market and related fields allows us to make forecasts about the change, trend formation, and reorganization of the educational process. Back in the early 1990s, a discussion arose in the educational environment about how to use new means of communication in teaching. And if initially it was a text format of interaction, then over time, technology began to introduce new capabilities.

One of the important engines for the development of technological systems was the inaccessibility of schooling.

In such a way, 264 million children around the world do not have the opportunity to get even primary education due to lack of necessary conditions and resources, about 600 million more have access, but do not study, and as a result of this, the World Bank noted the "learning crisis" (Tutelman, 2018). The answer to the "inaccessibility of learning" is the development and expansion of online learning platforms designed to minimize the gap in the ability to obtain knowledge in various fields and fields of science or use it as an additional means of learning if necessary.

However, in the framework of this research, we do not turn to Mass Open Online Courses (MOOC), which is an independent phenomenon (Rosa, 2015), but to a greater extent focus on the organizational aspects of digitalization of teacher–student interaction based on uberization and the consequences that this can lead to. The educational process itself can be implemented both in a remote and in-person format, which depends on mutual agreement. Therefore, uberization cannot be equated with one of the types of distance education.

At a new stage in the development of technologies—the Digital Revolution, arise fundamentally new mechanisms of interaction. One of the significant trends in the digitalization of modern society was uberization. The concept itself arose in 2014, and it is associated with the name of the first company that achieved serious success in introducing new technology into the organizational process—"Uber Technologies". Uberization was a real breakthrough, which is often compared with the introduction of the conveyor into the industrial process by G. Ford. Fordism made it possible to organize a system of mass production, which showed high efficiency. The introduction of digital platforms, such as Uber, made it possible to connect customers and performers without the participation of intermediaries, changing the system of providing services, or selling goods. All this became the basis for the growth of a new trend—uberization.

The process of uberization can be defined as the creation of a new form of network structure in the labor market, a system based on the active use of digital platforms that act as the basis for interaction between participants. Previously, concepts of network interaction in society have already arisen; their description can be found in the works of Florida (2012), Masuda (1980), Smirnova (2019).

Similar changes were described by Stewart (2013) as the onset of the era of "unlimited capitalism", associated with a decrease or complete disappearance of industrial dissatisfaction and the creation of two models of the economy —"joint consumption" and "joint earnings". It is necessary to emphasize that the observed transformations are directly related to the Fourth Industrial Revolution and the isolation of the new "Industry 4.0", the emergence of which originates from the development and implementation of AI and neural networks, replacing the usual computer technologies.

Today, the trend of creating a variety of Uber platforms is gaining momentum around the world and is possible in almost any segment of the modern economy: from real estate rental to de-standardized production of goods. The digital platform replaces intermediaries, acting as a platform for interaction between consumers and performers, while the connection between them is established much faster and cheaper. The possibility of sharing, simplicity, and coverage of applications led to a clear allocation of the five main economic sectors in which this technology is used and developed—travel, car sharing, financial services, hiring workers, multimedia, and their number will only grow in the near future.

Uberization becomes particularly relevant in the context of a decrease in the share of permanent employment and an increase in self-employment (Buschoff & Schmidt, 2009). They note that in 1970–1980 there was an increase in self-employment in Europe, which continues to develop rapidly in the modern world. This is due to both an increase in individualization and an orientation toward independence and self-expression, as well as to the specifics of those changes that occur in companies due to automation and lower personnel costs. Companies at the moment are increasingly turning to the services of self-employed, freelancers, outsourcing companies, as well as transferring part of their employees to "zero-time contracts". In this case, the employer does not guarantee permanent employment, but pays only for the time spent on work, without taking into account the possible downtime, weekend, or vacation.

German sociologist W. Beck noted that in the new conditions of the labor market, the "employment-unemployment" scheme established in industrial society is disappearing (Beck, 2000). Traditional employment is increasingly inferior to atypical (non-standard) employment. At the present stage, it is possible to observe how the redistribution of unemployment occurs. As a result, employment no longer appears to be permanent employment, but is manifested in the form of participation in individual projects or in the execution of orders, which can be implemented in parallel or absent at all, which cannot ensure stability of employment and income. Moving this picture to the plane of education, we can say that the philosophy of the new university is now emerging, in particular in matters of functioning. As noted by Goldberg (2016), the university ceases to be a way of upward mobility for the middle class. So, Maslanov (2019) suggests that a new model will arise on the "ruins" of former universities (Humbaldt and entrepreneurial universities)—the university of expertise, which will be able to incorporate all the best from the previous ones.

G. Rogers defined uberization in education as a situation where a particular student autonomously seeks a specific teacher or group of teachers to learn certain knowledge and/or skills (Rogers, 2014). New relationships characteristic of peer-to-peer economics are formed, and knowledge itself turns into a product or service.

On the one hand, the use of digital platforms solves some of the problems, eliminates the need to independently search for customers, and, as a result, removes the additional burden that is associated with this search; however, in response, the platform presents high quality standards, the compliance of which is monitored in the future. At the same time, the platform itself acts as a platform for interaction between the client and the performer, in this case the student and teacher, making this interaction more convenient, faster, and cheaper for all participants in the process, but requires them to have a certain level of digital literacy. For a student, it is an opportunity to receive personalized help at any time. The student itself controls when and how to contact her, as well as when calling a taxi.

The creation of such Uber platforms in the educational sector can significantly transform the education market, affecting both the work of teachers of schools and universities, and the interaction with tutors and teachers working on "hourly basis". In fact, such a digital platform can be a huge base of educational professionals, each of whom identifies the key characteristics and skills that he wants to sell and he assigns his price for them. At the same time, the process of mutual search of students and teachers is optimized. Thus, education becomes more accessible, and the educational process itself requires less organization costs. At the same time, teachers themselves receive new creative opportunities to rethink pedagogical practice, advance student training, and transform knowledge production in a wide range of fields (Goldberg, 2016).

An interesting feature that has already begun to be actively manifested, and is likely to prove itself much brighter—a freer access to the level of mass teaching, i.e., the creation of its own online courses, webinars and even entire schools. Thanks to this, new educational resources appear, quite often devoted to a variety of disciplines, including "extra knowledge", everything that can satisfy interest. Despite the high demand for the development of those skills and knowledge that may be required in the professional field, we can note interest in special knowledge as such, which cannot be useful in professional activities, for example, the history of the Middle Ages or the structure of the Universe. The growing popularity of popular science literature and portals, the active activity of popularizers against the background of an increasing gravitation toward postmaterial values in society, leads to the emergence of a public request for education. At the same time, even the active growth of various MOOC platforms cannot fully satisfy all existing requests. Unlike the lectures of the "living" teacher, the information is not updated there; this process requires additional actions, which is not always

profitable and not even always possible. On the other hand, the interests of the audience can vary greatly, while the existing courses have a certain orientation, which also cannot be changed. However, education is already actively involved in the remote format, and more and more different resources are emerging. Weller (2016) noted that in the case of uberization, the Meno paradox arises, in which if a student knows what he is looking for, and then his request is no longer needed, while if he does not know what he is looking for, then it is impossible to create a request. Therefore, a student in a collision with a new discipline is in a state of ignorance of what you need to know.

So, Taleb (2015) believes that students will prefer to contact teachers directly than to an educational institution. At the same time, in the conditions of building an uberized interaction, the status of an educational resource or teacher is no longer determined by the presence of certain documents and licenses, and not even by the attitude of the professional community, but primarily by the opinion of students. A student employer can no longer be based simply on the assurances of the candidate or his documents, but on the basis of the rating of other users; moreover, people with a low rating and negative reviews can be excluded from the platform altogether. The concept of the "strength of weak points" takes on a new meaning, when no longer relatives and relatives become assistants when choosing a teacher, but unknown people. Another important factor affecting choice and which should not be neglected is advertising, both explicit and hidden, for example, participation as an expert or author in various media and maintaining personal blogs or video channels.

For example, Beller (2016) in his essay cites possible situations of how a teacher can offer his or her skills and knowledge, as well as hypothetical situations of the fact that while gogging or having a glass of wine in the evening, the teacher may be caught by those who want to get some knowledge. At the same time, in the conditions of the Risk Society, where the employee himself must fight risks, including economic risks, the teacher may not have the opportunity to refuse the student. The radical responsibility of the employee is formed when he himself is responsible for his economic fate (Fleming, 2017). Therefore, he retains the "right to disconnect", but the likelihood of using it is quite small (Pak & Khusyainov, 2018). As a result, the stated autonomy and self-dependence become lower, and the desire to receive higher grades after interacting with a student–client can affect both the behavior of the teacher and the results of training. Such training provides, as a rule, knowledge to fulfill the task, and not the ability to understand it deeply.

At the same time, unpredictability in payment, despite the fact that the model is initially focused on obtaining more income, can lead to high turnover. Unlike taxis and other services, the educational process requires more time and periodic interaction over time. Therefore, the students themselves, who also need support, can suffer the possibility of building a dialogue with the teacher, especially in the absence of other students. It is worth noting such a feature that in this type of education the highest level of individualization is manifested, a personal tutor or consultant gives accurate knowledge, but deprives discussions with other students, in general contacts with them and the prospect of building new social ties around the educational process. Let us not forget that educational institutions themselves, as platforms for obtaining knowledge and developing skills, are also factors in the process of socialization.

In addition, one cannot fail to note the trend of automation, which is already happening in the field of taxis and rental housing, where human participation is completely excluded, by the introduction of cars with autopilot and contactless methods of transferring keys. This can happen in the field of education, by introducing, by analogy with "classes without a teacher", automated systems. The field of educational services can be infiltrated by developing artificial intelligence, which will create images and videos, generate responses to requests, and conduct verification and assessment of completed tasks. This can further enable you to create the lifeless professor, which will be only a created AI image, and it will be connected to the global knowledge system, thanks to which it will answer user questions, structure, and transfer material. In these cases, we can hear more criticism, including comparing the educational process with programming (Kutyrev, 2019).

4   Conclusion

Uber processes in the modern digital economy are being actively discussed in a variety of areas. More and more Uber platforms are emerging in order to implement this transition. These new developments can undoubtedly lead us to take a fresh look at education.

Ngo Tu Lap (2018) notes that together with uberization, the traditional university will disappear and Kyrou (2015) says that uberization is a weapon of mass destruction, which on the one hand relies on populism, and on the other on the libertarian spirit. Since this process is still gaining momentum, we can assume several possible scenarios that can develop independently of each other.

Under these conditions, education goes into the format of "on-demand services". Therefore, together with the development of digital individual education, the status of teachers is changing toward the fact that they cease to be guardians of sacred knowledge but rather online assistants like Siri or Alexa. Moreover, with the development of AI, they can be replaced by virtual assistants who will learn from them by

collecting a database of interaction with a student. Therefore, as Goldberg (2016) notes, there is a likely increase in robotization of basic skills and a decrease in the human learning interface. Teachers will increasingly define what is valuable to study.

The next step is the ability of the platform to select teachers on the basis of existing assessments, student interests and other characteristics, forming the student's learning trajectory, gradually reducing his freedom of choice in favor of the rationality and effectiveness of the process, excluding irrational and in some cases discriminatory criteria that may exist: for example, preferences regarding the teacher's gender or race.

If initially the process of uberization in the field of education was to provide the opportunity to obtain specific knowledge or information, then in the future, it can create a division into receiving information from a machine, or from a person where an additional fee will be taken precisely for "live communication". Therefore, this can create inequality between those who get the opportunity of personal communication, conversations with the teacher, and those who only have access to education and knowledge through technology.

The teacher in this case may no longer be a content producer, but may become a mentor when mastering some material. Education in this case will become a highly personalized and flexible activity, which may not have a connection with any academic institution. The latter are replaced by self-governing training centers, which will offer a completely non-violent and technological educational environment for young people who have decided to study outside the traditional educational institution. In this regard, McDonald (2017) notes that in the education of the past, students were consumers of knowledge, while in the future, they get the opportunity to produce it. The role of the teacher and its importance will become much wider, but the number of those who can afford to have a personal mentor will most likely gradually decrease.

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