

Pandemic as Moment of Truth: Pluses and Minuses of Digital Educational Technologies

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ABSTRACT

COVID-19 and related quarantine measures have become a test of the strength of many social systems: first of all, the political, the economic, as well as the educational. Comparing the concepts of teaching and education of authoritative American (Veblen, Dewey) and German scientists (V. Von Humboldt, Jaspers, Luhmann), the authors of the article come to the conclusion that in the conditions of quarantine, firstly, the immanent conflict between education as a self-referential system and education as an externally referential system clearly manifested itself. The latter is designed to meet the needs of economics, politics, ideology, and not education in its independent social-and-cultural dimension. Secondly, the remote educational technologies are suboptimal, both for the self-referential and for the externally referential format of the education system. Third, the hybrid (part-time) learning format completely disorganizes the learning process, increases the counterproductive self-exploitation of teachers and increases the stress load on students.

Keywords: *pandemic, globalization, digitalization, information, communication, education, distance education, digital educational technologies.*

1. INTRODUCTION

The COVID-19 pandemic has raised the problem of the relationship between the internal and external reference of national education systems. Education as a self-referential system is focused on concepts such as "education", "training", "knowledge", "cultural heritage", "historical memory". All this is the essence of the internal constants of this system, which largely do not depend on the economic and political situation. At the same time, education also fulfills external tasks, i.e. it is an external reference system. As such, the education system shall focus on political objectives (for example, training the administrative elite), social-and-economic imperatives (for example, reducing unemployment due to new in-demand professions) and social-and-cultural realities (for example, ethnic diversity of the population and "multiculturalism"). In the context of a pandemic, the share of distance learning technologies has sharply increased. In terms of education as a self-referential system, remote access programs literally block the classic teacher-student learning model, which provides direct contact and instant feedback. In other words, the computer interface dramatically reduces the teacher's ability to monitor and control the educational process. On the other hand, in terms of education as an externally referential system, focused, for example, on the needs of the economy or even on the needs of individual commercial structures, distance learning seems to be ideal for some new professions, where future specialists actually perform the functions of the operator of the corresponding computer programs (e.g., landscape design). Under these conditions, a structural conflict inevitably arises between

the self-referential and externally referential functions of education.

2. RESEARCH METHODS

The authors apply in this paper the logical, historical, sociological and comparative methods. The latter is dominant in the analysis, comparison and synthesis of the North American and German models of higher education.

2.1. Concepts of Education in the USA: T. Veblen and J. Dewey

The authors chose Thorstein Veblen (institutionalism) and John Dewey (North American pragmatism as a kind of empiricism) as representative theorists of the North American model of higher education. Thorstein Veblen (1867 - 1929) considered the American model of higher education as one of the basic social institutions: "An institution is, after all, a prevalent habit of thought, and as such it is subject to the conditions and limitations that surround any change in the habitual frame of mind prevalent in the community".

Veblen traces the emergence and formation of any system of knowledge "by two certain impulsive traits of human nature: an Idle Curiosity, and the Instinct of Workmanship". The first trait, as a rule, in the form of banal idle curiosity (= the phenomenon of "keyhole") is inherent in almost all normal people. However, in the sublimated form of "philosophical or scientific surprise", it becomes the

property of the individual only in the process of hard mental labor. The second trait (=the Instinct of Workmanship), by definition, is capable of manifesting itself only as an artifact, i.e. as a result of close interaction of the "apprentice" with the Master. Although it is impossible to draw an insurmountable line between these features of human nature, with a high degree of probability it can be argued that spontaneous curiosity is given to people, like cats, for example, much easier than recognizing the "instinct of craft skills" within themselves. Be that as it may, high school, according to Veblen's logic, is only a propaedeutic to the subsequent self-determination of the individual, when he stands "at the fork" between the road of idle (scientific) curiosity and the road of craftsmanship. This "fork", according to Veblen, is at the same time a point of divergence between a classical university with its pathos of an objective and even selfless search for scientific truths, on the one hand, and professional and engineering colleges that train narrow specialists, on the other. According to Veblen, the researcher, as the main character of the university, is necessarily subject to "contamination" and even "degradation" to the status of a "schoolmaster". In other words, when a university researcher positions himself as a "professor" teaching students, he/she is forced to "falsify" idle (disinterested) curiosity as the highest value of university education by the interested instinct of a master teaching his apprentices "in his own way", that is, in the spirit of his/her own skills, preferences and idiosyncrasies. As a result, the objectivity of the researcher "drowns" in the subjectivism of the "school doctrinaire". Thus, the system of "school indoctrination" grows, as it were, from below into the model of a research university. But Veblen sees the main danger for the classical university in something else, namely in the university administration. Its specificity consists in the fact that it is simultaneously a bureaucratic apparatus and a business structure. In other words, the bureaucracy of any American university, according to Veblen, copies in its practice the methods of a commercial enterprise. The university administration considers the knowledge as a special commodity. In order to make this "product" the series one (the conveyor-made), it shall be standardized, measured, tested. Bureaucratic templates that ensure the "presentation" of university "products" push the value of knowledge as such into the background. Although the administration of an American university gives priority to managers with commercial skills, their salaries are usually far less than those of managers of large commercial companies. Accordingly, according to Veblen, only businessmen of the "second or third grade" who have not found a place for themselves in real business become university managers. Hence, the spirit of innovative entrepreneurship is inevitably suppressed by the spirit of standard bureaucracy and the spirit of the balance sheet. The principle of idle (disinterested) curiosity, coupled with the instinct of craftsmanship, inevitably ends up on the periphery of the university's fund raising system.

John Dewey (1859 - 1952) considered the education system as a lifelong process of accumulating socially useful experience through communication, i.e. through mutual exchange of experience by different people, first of all,

within their common social-and-cultural environment. "Men live in a community in virtue of the things which they have in common; and communication is the way in which they come to possess things in common". Dewey argues that social life coincides with communication, and all communication and, therefore, social life is educational in nature. Through communication, people gain enhanced experience. Moreover, penetrating into the sphere of thoughts and feelings of another person, we - one way or another - change our previous attitudes, ideas and patterns. The model of lifelong and total (self) education and coeducation, which Dewey considered the only correct, liberal and democratic, required detailing as regards educational relations between virtually unequal: between children and adults in general, as well as between students and teachers, in particular. As part of his doctrine of education, Dewey had to demonstrate how the principles of freedom and democracy can become the basis of school reform. As a result, according to Dewey's logic, Veblen's pessimistic thesis that the school bureaucracy technically "borrows" the style of behaviour of the penitentiary bureaucracy could forever lose its relevance. Dewey's school reform "stands and falls" along with (1) his optimistic belief in the future victory of democracy over the global oligarchy (sic!) and (2) his demand to subordinate school philosophy and politics to the priority of "student experience" over all the rest, including over the "experience of the teacher of this student". Paraphrasing Lincoln's famous definition of democracy, Dewey characterized his philosophy of education as "the philosophy in question is ... one of education of, by, and for experience".

In an oligarchy, communication is often perverted. Even a simple transmission of information, for example, "rumours" can constitute disinformation, and the so-called official information in a procedural format is often a counter-process of propaganda of one national oligarchy and counter-propaganda of another national oligarchy. At the everyday level, people often "communicate" in such a way as to conceal socially significant information and use it in their own selfish interests at someone else's expense, that is, using other people "in the dark" against their own interests.

Dewey sees the cardinal task of education in using the natural inclinations and inclinations of the student to educate him as an effective economic agent capable of feeding himself and his family, as well as a good citizen who shares the political and socio-cultural values of freedom and democracy.

2.2. Education concepts in Germany: from Wilhelm von Humboldt to Niklas Luhmann

As it is known, Wilhelm von Humboldt (1767 - 1835) is the author of the concept of higher education, which became not only dominant in continental Europe, but in the 19th century also had a huge impact on the formation of university education in the United States. According to Humboldt, the key word for the new university was the

word "science", and Humboldt called the new (Berlin) university "the highest scientific institution" (die höhere wissenschaftliche Anstalt). The ideal of new education according to Humboldt rests on three pillars: freedom of research and teaching, the unity of research and teaching, and the priority of education over vocational training.

Humboldt, in our opinion, succeeded in what Dewey failed a century later: it is about combining innovation and tradition, even about the "immersion" of the former in the latter. The point is that Humboldt's "science" should not have supplanted "school" as the central concept of medieval scholasticism in general and medieval university in particular. The essence of the new university "is, therefore, to combine internally objective science with subjective education and externally - completed school education with beginning study under its own guidance or, rather, to ensure the transition from the first to the second. However, science remains in the spotlight...".

Universities as higher scientific institutions should, by definition, serve the "pure idea of science", free from any political and economic conjuncture, and, moreover, from any mercantile interests. That is why "loneliness and freedom" should become the dominant principles of the inner life of the university. Every student, like every professor, freely chooses a research problem and himself ("alone") seeks a solution to it. True, freedom, like the loneliness of a student, is of a relative nature: they are, as it were, tied to the professor-curator, who helps the student to determine the sphere of future scientific interests and subsequently acts as a kind of "scientific advisor".

According to Humboldt, the "pure idea of science" within the framework of higher scientific institutions is of a procedural nature. That is, it is an ongoing "work in progress". In scientific creativity, only intermediate results are possible - in contrast to the school, whose task is to provide the student with a standard "baggage" of ready-made knowledge. Much of the knowledge must be learned "in reserve" or simply because "this is the requirement of the Ministry of Education". The school teacher acts as a "dispenser" of the necessary set of knowledge, and the student trains in cramming this knowledge if he/she wants to get a good certificate. The relationship between professor and student is quite different. According to the "pure idea of science" prevailing in the university, both are researchers, and although at first the professor objectively acts as a mentor, his/her task is to educate the student as an independent and independent researcher, capable of critically reviewing the scientific contribution of his/her mentor.

The fundamental difference between a university as a higher scientific institution and a school as a conveyor of ready-made standard knowledge is that it is important for the internal organization of a higher scientific institution to preserve the principle of "elusive science". According to this principle, "science should be considered as something not completely found and never completely found."

A century and a half later, in the academic environment in Germany, Wilhelm von Humboldt's ideas about education acquired the status of axioms. The famous representative of German existentialism Karl Jaspers (1883 - 1969) in his study "The Idea of the University" only concretizes and

clarifies certain provisions of the Humboldt doctrine: "The university has a mission to seek the truth in the community of researchers and students". We have brought the Russian translation as close as possible to the original in order to emphasize the specific rootedness of Humboldt's educational doctrine in the German academic consciousness. First, we should state the primacy of the "idea of the university", which, as such, sets the task of finding the truth for individuals who are voluntarily subject to this idea. Second, Jaspers is distinguished from Humboldt by a more realistic view of the scientific potential of students. That is why Jaspers conceptually differentiates students from researchers in a strict sense. "The university is a school, but a school that is unique in its kind. It not only teaches, but the student must, through the professor's doctrine, participate in (his) research manner and thus develop a scientific style of thinking that will determine his life". Jaspers realistically captures (in the 1961 edition) the trend of increasing mass character of higher education, but connects it with the fact that in the modern world "the economy, society and the state have a constantly growing need for an academically trained contingent (einen Bedarf an akademisch geschulten Kräften)". In our opinion, Jaspers correctly pointed out the need for a differentiated approach to the contingent of educated people. However, the Humboldt-like "pure idea of the university" does not fit well with the needs of the economy, if by this word we mean "the interests of business", i.e. saving and increasing profits. On the other hand, this idea is not on friendly terms with the idea of the state, i.e. with the bureaucratic apparatus and its craving for excessive regulation and standardization of any social ties. The sphere of "society" also remains under suspicion, if by this word we mean "capitalist society", where any union of individuals is selfish in nature to protect their interests and oppose the interests of others (sometimes just "out of harm", that is, in the chicane format). The pure idea of a university according to Humboldt can manifest itself only in a community of disinterested like-minded people, for example, working together on a certain scientific problem. True, the question remains outside the brackets: can a scientific problem remain "pure" if it is formulated as "an order from a business corporation"?

Be that as it may, in the modern era of IT technologies, many professions are robotized (for example, the profession of an accountant, storekeeper or tax inspector). Accordingly, in entire sectors of the economy and public administration, the need for an "academically trained contingent" not only does not increase, but the need for a "human factor" in general decreases. Jaspers notes that the idea of a university is threatened by the objective trend of specialization of scientific knowledge. The number of scientific disciplines is constantly growing, and interdisciplinary connections sometimes remain in the background or are simply ignored. A holistic perception of science for narrow specialists becomes inaccessible. The university seeks to ensure the principle of universality purely formally, i.e. by mechanical gathering under one roof as many different faculties and centers as possible.

Niklas Luhmann (1927 - 1998) - one of the most influential social theorists of the 20th century - drawing on his own experience as a university professor, coldly states that Humboldt's "idea of the university" was based on the idea of education, which in the modern era can no longer be re-actualized. According to Luhmann, the sphere of scientific research cannot have a pedagogical impact. Luhmann believes that the key word of the modern era is the word "differentiation" (Ausdifferenzierung). Accordingly, the pure idea of the university, in his opinion, cannot keep within itself the unity of three social systems: political, scientific and educational. Each of them lives according to its own laws "without looking back" on other social systems. However, the main danger for the university as a "pure idea" in the spirit of Humboldt comes, by definition, from the political system, for which the university is, first of all, a "forge" of bureaucratic personnel, and not a "higher scientific institution".

It would seem that the principle of university autonomy should act as a guarantee of the university's freedom from political interference from the state. However, according to Luhmann, it is the university bureaucracy, which he calls "democratic bureaucracy", that from within destroys the principle of freedom of research and education. This happens through the use of numerous democratic procedures by various university commissions when making decisions.

Luhmann, like Jaspers (see above), notes the objective tendency of increasing the mass character of higher education and suggests accepting this as follows: with the exception of law, medicine and pedagogy, all other university specialties can be presented in two formats: "Hard" and "soft". Students choose the format themselves: "Hard" provides strong guarantees of employment, "soft" is, as it were, diffuse: it simply "introduces" into the profession and does not guarantee anything for the future. However, as Luhmann insists, students of the "soft" format, say, the second or third semester, should have a chance to "come to their senses" in time and switch to the traditional "hard" teaching mode, which provides for hard intermediate oral and written exams.

3. RESEARCH RESULTS

The English word "education" is of Latin origin and is a direct borrowing from the Old French language. "Education" literally means "bringing out" (a student from the darkness of ignorance to the light of knowledge). With such a purely etymological interpretation - without an "educator", that is, a guide - education as a social institution is simply impossible. Such a "guide" par excellence, according to Veblen, is the school teacher, or "schoolmaster" in his terminology. The problem of such an "educator", according to Dewey, is that in the traditional (classical) system of school education "from without", the "educator" essentially performs the functions of a "shepherd", i.e. herd gadman.

Moreover, the inevitable bureaucratization, stereotypization and standardization of the sphere of education ob-

jectively brings the logic of the inner life of the school closer to the logic of a penitentiary institution. Continuing the metaphor, it can be argued that the improvement of the classical model of school education Dewey sees in the transformation of the teacher's function as a "shepherd-overseer" into the function of a modern "guide-conductor" who has alternative routes for different clients "according to interests" and even according to "individual requests". At the same time, Dewey is not ready to leave everything at the discretion of the "educational service client". The main thing for Dewey is to prevent the loss of the cardinal function of education. It is about the need to educate an economically self-sufficient citizen. True, Dewey seems to underestimate the wisdom of the English proverb: "You can take the horses to the water, but you can not make them drink".

In German, the term "education" can be translated in two ways: "Bildung" and "Ausbildung". Through education, a unique "image" of a person is formed, since the word "Bildung" is derived from the word "Bild" (image, picture). The second word (Ausbildung) is usually used to mean "(completed) learning". In other words, one can be a certified ("complete") engineer, but at the same time not be an educated person, but remain a social "stamp", i.e. "just an engineer", "a man like everyone else". The educational ideal of Humboldt is precisely aimed at clearly distinguishing education as a social-and-cultural value and simply professional training, which is purely technical in nature.

The educational process during a pandemic is focused on the priority of digital technologies. Under these conditions, the social distance between teachers and students has undergone a conceptual metamorphosis: if in the format of classical offline education (for example, in the pre-revolutionary and even in the Soviet era), the "teaching staff" had the status of a socially strong group", at least in the credit -examination period, then in the context of online education, students have become a social strong group. They themselves determine when to contact the teacher. The teacher, as a rule, is obliged to adhere to fiction, as if there is no pandemic, and he/she works on an offline schedule, but "only through the TV". Moreover, the student can send a message to the teacher, say, on the night between Saturday and Sunday, then innocently clarify on Sunday evening whether the teacher checked what the student sent him at night.

The pandemic has clearly revealed another dysfunction of the Russian model of education, which the Russian educational legislation has lowered to the level of "services", i.e. relationship between the "service provider and the client", which, as known, is always right. The bad manners and, at times, shameless behaviour of students during a pandemic clearly indicate that students have already learned a vicious tendency in some Russian universities, according to which the negligence and cognitive numbness of lagging "students" allows the university administration to identify "difficult to understand subjects" that must be eliminated in the prospective. For example, if during a pandemic most of the students ignored Latin classes, then

(1) Latin is to blame, (2) Latin teachers, but not the students themselves - the debtors (sic!).

Conclusion 5: The group (mass) university has lost its internal unity and is not only a mechanical union of various faculties, but also a conglomerate of socially heterogeneous university groups: students, teaching staff and administration. Each group defends its own interests. In the context of the pandemic, it was the teaching staff that turned out to be the most exploited and most vulnerable group, since only teaching staff are forced to work in a double (self) exploitation mode, namely, both in full-time and in absentia.

4. DISCUSSION OF FINDINGS

The requirement for teachers to combine the two teaching formats (offline and online) tends to lead to destructive competition between two poorly compatible teaching styles. Indeed, online learning loses the element of immediacy and instant feedback. In this case, the teacher must adapt to the interface and - a limited set of options for a specific Internet platform, for example, Zoom.

Dewey's learning-by-experience theory has nothing to do with digitized tests. Moreover, it is completely incompatible with them, since Dewey requires from the teacher a creative approach - ideally - to each individual student. In other words, the transfer of experience from teacher to student is only an element of the communication process in the feedback mode with each student.

Literacy in the digital age, especially in the distance learning mode, makes the student a "digital appendage" of the computer, i.e. the executor of digital commands converted to text mode. Under these conditions, the oral, namely the personalized culture of learning from person to person becomes the only factor capable of providing training in creativity. After all, the computer itself cannot be creative, at least in the human sense).

5. CONCLUSION

The mass university has become a business corporation. Modern universities compete among themselves for the number of students: the quality of training becomes a function of the number of students in the sense that famous professors in the university staff are presented as "exclusive goods" that are put up for sale for prospective students in the spirit of Zygmunt Baumann.

In the era of digitalization, a mass university has ceased to be a necessary "appendage" of public administration. In other words, the mass university began to train a huge number of unemployed intellectuals, who are unable to find a place for themselves in the ranks of the public service. As for business, a university degree has never been a "pass" to the field of entrepreneurship thereto. We have already stated above that Niklas Luhmann, in particular, connects the current crisis of university education with the inability or even unwillingness of the bureaucratic appa-

ratus to "absorb" more and more new university graduates (= "academicians").

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REFERENCES

- [1] Z. Bauman, *Intimations of Postmodernity*. – London: Routledge, 1992.
- [2] Z. Bauman, *Work, Consumerism and the New Poor*. – N.Y.: Open University Press, 2005.
- [3] J. Dewey, *Experience and Education* [1938]. – N.Y.: Touchstone, 1997.
- [4] J. Dewey, *Democracy and Education*. – Pennsylvania University Park: The Penn State University, 2001.
- [5] M. Eigen et al. *Die Idee der Universität: Versuch einer Standortbestimmung*. – Berlin etc.: Springer-Verlag, 1988.
- [6] Fr. M. Hess, *Common Sense School Reform*. – Houndmills, Basingstoke: Palgrave Macmillan, 2004.
- [7] W. Humboldt, *Über die innere und äussere Organisation der höheren wissenschaftlichen Anstalten in Berlin (1809/10) - Humboldt | Organisation*. Grün.dungstexte. edoc.hu-berlin.de
- [8] K. Jaspers, *Die Idee der Universität* [1923]. – Berlin, Heidelberg: Springer – Verlag, 1961.
- [9] N. Luhmann, *Ausdifferenzierung des Rechts*. – Frankfurt/M.: Suhrkamp, 1999.
- [10] N. Luhmann, *Beobachtungen der Moderne*. – Opladen: Westdeutscher Verlag, 1992.
- [11] N. Luhmann, *Das Erziehungssystem der Gesellschaft*. – Frankfurt/M.: Suhrkamp, 2002.
- [12] Luhmann N. *Universität als Milieu*. – Bielefeld: Haux. – 1992.
- [13] Th. Veblen, *The Higher Learning in America: A Memorandum On the Conduct of Universities By Business Men*, 1918.
- [14] E. Wild, J. Moeller (Hrsg.) *Paedagogische Psychologie*. – Berlin: Springer-Verlag, 2009.