



# Problems of Managerial Competencies in the Field of Higher Education, Taking into Account Modern Transformational Trends

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**Abstract.** The article is devoted to a topic that is very important for the post-Soviet countries nowadays, and which is related both to the development of intellectual human capital and to the need to transform higher education. The article, based on the research of current trends, examines the competencies needed today in the field of higher education (HE), which can transform crisis into opportunities. The direct relationship and simultaneous flow of several intersecting transformational processes in the field of higher education – digitalization, transition to managing the university as an entrepreneurial university, the implementation of strategic management methods and the need to take into account the main requirement for HE - high-quality education and the creation of meaning and identity for new leaders, leads to the special significance of managerial competencies in the field of HE. The main task of the university now in this regard is not to teach specific skills that arise in connection with changes in the modern world, but to prepare graduates so that they can independently form such competencies that they need in every segment of their professional activities.

**Research Contribution:** The theoretical significance of the study is determined by the fact that the main provisions and conclusions proposed by the authors can fill the gap in the theoretical understanding of the problem of managerial competencies in the field of higher education in the modern world.

**Keywords:** Digital competencies · managerial competencies · higher education · information environment · media and information literacy

## 1 Introduction

The management of a modern university, in connection with the current global trends and changes that have affected all areas of social life - in particular, digitalization, the transition to online learning, the massive introduction of courses with remote access from leading universities, the mobility of a modern student - today also faced the need for transformation. First of all, it is the need to introduce new competencies, skills, methods and abilities that meet modern reality. The corresponding development of human intellectual capital, which is based on the educational sphere, is therefore more relevant

than ever. At the same time, we can note that the basis of any competence is, first of all, personal qualities, in particular, of the educational community members, who carry meanings and form the leaders of a transforming society. Of special importance is the ability to bear responsibilities and bring meanings to people. Whatever changes technology and generational change bring, the same core competencies are still important and expected from managers and new leaders: helping workers develop skills and providing feedback; removal of obstacles; setting clear goals; making decisions.

Since the topic is very complex and compound, in this article we only raise such issues as modern universities, management in this area, transformational trends that universities are dealing with today, management approaches that can give greater flexibility in managing a modern university, competencies that lie at their core, as well as the competencies that a modern student needs today. We consider some of the problems and contradictions of the necessary competencies that university management has encountered in connection with digitalization and online learning that have entered universities with Covid-19. *The main purpose* of the study is to identify the necessary managerial competencies at the intersection of new trends and changes, as well as to identify the problems that appear in this regard.

## 2 Method

The methodological approach used in investigating our research problems is based on qualitative and mixed methods, philosophical ideas that consider the field of education as a function of society that ensures the reproduction and development of society itself (Matskevich 2011), a model for the development of human intellectual capital (Avetisyan, Gevorkyan 2020), we used data from the Boston Consulting Group regarding management perspectives, the ideas about the transformation of universities into the 3rd generation one (Wisseman Johan G., 2016), new researches and works in the field of competencies and skills were studied (Trends in Higher Education: 2021/2022 Data of Insights & Predictions, Educause Horizon Report 2020, World Economic Forum's report of 2018, and Working Group on Education of Unesco: digital skills for life and work 2022). Were studied researches and expert assessments on the importance of media education, (A. Wong, S. Ho, Olusanya O., M.V. Antonini et al., 2020, E. Vartanova 2021).

Since in the CIS countries digitalization later entered the field of education, in order to see the results already obtained over a long period, we resorted to research data presented in the reports of the International Program for the Assessment of Student Educational Achievements of the OECD countries. We also relied on studies of the attitude of teachers and students to the use of digital technologies and the nature of their use in the educational process, carried out by a team of German authors (M. Bond, V.L. Marín, C. Dolch, S. Bedenlier, O. Zawacki-Richter, 2018), studies of the impact of digitalization on the health of children and adolescents conducted by Auerbach, R. P., Mortier, P., Bruffaerts, R., Alonso, J., Benjet, C., Cuijpers, P., Demyttenaere, K., Ebert, D. D., Green, J. G., Hasking, P., Murray, E., Nock, M. K., Pinder-Amaker, S., Sampson, N. A., Stein, D. J., Vilagut, G., Zaslavsky, A. M., Kessler, R. C., & WHO WMH-ICS Collaborators. (2018) in Surveys of World Mental Health, and works of such researchers as (A. Grigoriev - 2022, M. Chakhnashvili - 2022, M. Spitzer - 2012).

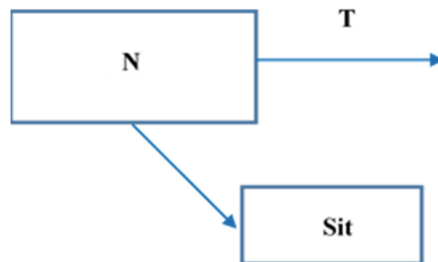
### 3 Findings and Discussion

University management, like traditional management, has come to the need for transformation in connection with a number of modern trends that underlie the development of society, which requires an appropriate analysis of both the trends themselves and modern concepts of management and a new generation of university. In this regard, it also becomes necessary to understand and realize the extent to which global trends in higher education are dictated by the intellectual sphere to which education and culture (E/C) belong, and to what extent, on the other hand, they are brought from the spheres of the economy/management (E/M) and administration/law (A/L). As it is known, the imbalance of these fundamental three fields of social life - intellectual, economic and administrative, the inability to clearly distinguish them and apply for each of them certain forces essentially corresponding to them leads to problems and transformations/prohibitions (when the forces of one field do not work and the forces of another turn on) instead of development.

In general, education, agreeing with S.A. Matskevich, can be considered as a function of society, which ensures the reproduction and development of the society itself and systems of activity. This function is realized through the processes of translation and implementation of cultural norms in changing historical conditions, on the new material of social relations [1, p. 25] (Fig. 1).

So, if we make the forces of economics or administration dominant in the field of education, we will see a deformation in the development of society. In each social sphere, forces belonging to the other two should work, but with the dominance of the main one (Fig. 2).

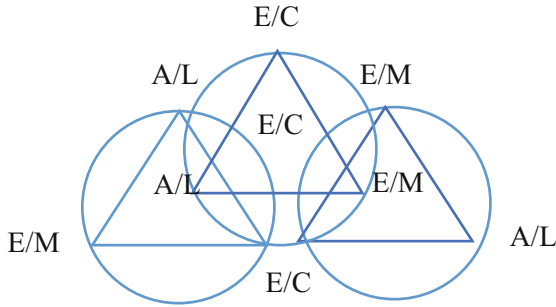
Being the bearer of essentially humanitarian quality, education must adhere to special specifics in the management process. Therefore, the process of education management should not be identical to the management of an industrial organization. "The management of humanitarian systems becomes reflective, research-normative." At the same time, humanitarian management must bear the attitude of responsibility for the results



#### Legend

- N – space of cultural norms
- TR – translation and reproduction vector
- R – realization vector
- Sit – sociocultural situation

**Fig. 1.** Scheme of translation of culture and reproduction of activity [1, p. 25].



**Fig. 2.** Scheme of the balance of social spheres

of activities, as well as the attitude of value and legal regulation as basic competencies. Humanitarianism can be defined as knowledge about a person and their world, and humanitarian objects exist only insofar as they exist in the knowledge of an observer or actor (for example, a manager), and therefore are dependent on the primary attitudes and thinking of the observer or subject of activity [1, p. 27].

According to the model of development of human intellectual capital in the modern world [2, p. 497], provided that the balance and harmonious interaction between the main areas of the social organism E/C - E/M - A/L is maintained, it is the educational environment of a modern university that becomes the core of creating new competencies and abilities, including managerial ones, with the help of which new technologies (including digital ones), tools and methodologies are flowing back into the educational environment and developing it based on the needs of a person at this stage [2]. Today, it is the quality of human capital that underlies the model of the digital economy.

At the beginning of the 21st century, universities have undergone a “fundamental transformation, which consists in the transition from the 2nd generation universities that arose in the post-Napoleonic period, based on the interests of science, that is, interests lying within the same social area, to the so-called “third generation university” model, which basically translates transforming universities into the service of the goals of economic man [3]. The factors that formed the basis of the 3rd generation universities, mentioned in the work of Wissem Johan G., inevitably had to lead to the transformation of universities, however, the subordination and use of forces alien to the field of education led to a number of problems and the subsequent distortion of the role of higher education as a leading area shaping social life. Universities in the CIS countries began to move to the 3rd generation model after the first decade of the 2000s. In the management model of the third generation University, the main element of the organizational structure of the university are large university institutes that unite faculties, followed by departments and research units of interdisciplinary or mono-disciplinary profiles. Institutes within the university have the status of entrepreneurial structures, which, within the framework of strategies agreed with the board, get the opportunity to hire staff, conduct their own research and educational projects, enter into partnerships with the structures of other educational organizations. The administrative structure is divided into two parts: the secretariat, which supports the main members of the board, and university-wide services, which provide a centralized service to the institutes. This structuring makes it

possible to save money through the effect of scale. Thus, as in entrepreneurial companies, business unit management is given full responsibility for making “profits on its group of customers/students or products/knowledge”; managers and employees at various lower levels of the existing hierarchy are given appropriate responsibility and encouraged for achieving their goals (performance of their tasks). At the same time, the corporate culture of universities is also becoming client-oriented. It is important to note that for a modern university, the development of innovation activity becomes an important part of the mission and, therefore, the creation of a special organizational infrastructure is required, such as special units that perform the functions of ensuring innovation activity, such as:

- 1) structures that support innovation activity (offices for transfer and commercialization of the results of innovation activity);
- 2) research and production centres (student business incubator, technology park, laboratories, etc.);
- 3) structures providing management of innovative activities and innovative infrastructure and their financing;
- 4) divisions responsible for scientific and educational programs in innovative areas;
- 5) structures that ensure the promotion of scientific, educational, consulting services in the domestic and foreign markets.
- 6) creation of an innovative ecosystem around the university, including a wide network (Ecosystem is such a construction of information systems that does not require third-party developers to use specific tools for their products: it is enough to implement an agreed data exchange protocol. This makes it possible to ensure the interaction of any information systems if this protocol is implemented.)
- 7) interactions with partner organizations - business structures, business support centres and technology transfer [4].

In addition to the above, a modern university needs such units as analytical and intellectual centres, inherent in reflective management, in which “almost all intellectual processes (thinking, understanding and reflection) are present and are priority, generating executive functions” [1, p. 27]. The organization of activity for a reflective management system stands as more open, diverse, democratic and connected as a network which is more in line with the essence of higher education instead of an administrative system, which is characterized by closeness, hierarchy and vertical management.

Given the above, Agile management methods, which have recently been developed in the environment of IT projects, could well resonate in the innovative environment of educational management. The principles of the Agile model are now being actively applied in various organizations and the reform of the work of traditional management, according to a joint survey by Consulting companies BCG and Ipsos, correlates well with the expectations of the surveyed 5,000 employees in four Western countries (France, Germany, Canada and the USA) and China, including 30% of managers. According to the Agile model, the image of an ideal manager is formed from such actions as: helping the team develop skills, giving feedback, overcoming difficulties/obstacles, assisting in the performance of work, making decisions, setting clear goals, generating meanings and motivating the team [5].

The challenges of the 2020 pandemic: high levels of isolation, disruptions due to unplanned closures of educational facilities, widespread remote learning, and burnout of teachers and staff due to increased workloads have combined to create new requirements for universities, in particular in the management field. The main trends that form these requirements for universities were grouped by experts, according to the study “11 Top Trends in Higher Education: 2021/2022 Data, Insights & Predictions” [6], conducted in August 2020 into the following:

1. Using artificial intelligence for learning
2. Spread of online learning
3. Virtual reality in education
4. Eliminate skill gaps
5. Emergence of Massive Open Online Courses (MOOCs)
6. Enrolment of foreign students
7. Growing need for alternative financing options
8. Life-long learning, continuous learning and improvement of skills

The challenge of addressing skill gaps requires rethinking programs, courses and curriculums, so that today’s learners can meet their needs and at the same time keep up with the changing needs of the labour market [7]. At the World Economic Forum back in 2018, it was noted that the fourth industrial revolution, caused by the rapid development of robotics, artificial intelligence and other new technologies, created skill gaps in all industries [8]. Today, despite the development of the IT sector, we see a shortage of specialists in many areas. Similarly, the impact of technological automation, the complexity of the workflow, and the fragmentation of decision making in the current work environment combine to increase the demand for managerial skills across various business and economic sectors [9].

In addition, as the most relevant and useful combination of skills for each employee is constantly changing, competence-based education (CBE) is becoming increasingly important. CBE helps institutions meet the needs of individual students and puts more emphasis on expanding the diversity of their skills. Universities are designed to help students develop some of the most valuable skills in any workplace, such as problem solving, critical thinking, teamwork, people management and empathy.

The fourth industrial revolution carries the risks of increasing instability and a possible collapse of the global socio-economic system, and society, formed under the influence of ongoing processes, now faces a challenge that needs to be answered, including through the formation and development of new managerial competencies, skills to use digital technologies and tools, new skills, professions and areas of expertise, including data science. More generally, the new skills needed for the new world that is currently being formed along with the widespread introduction of new technologies have come to be called digital. According to the working group on education of UNESCO in 2017 map of new abilities and skills [10] needed by a person as a base, include such core competencies as:

1. ability to communicate in their native language
2. ability to communicate in foreign language(s)

3. mathematical skills and basic competencies in science and technology
4. digital competencies (the ability to handle information)
5. ability to learn
6. social and civic competences
7. ability for initiative and entrepreneurship
8. knowledge of world culture and the ability to express and create values based on it

For a person who occupies managerial positions in the field of education in one or another part of it, we would add as the most important basic competencies - the ability to reflect and create meanings, as well as the ability to manage information and the ability to analyse and critically treat it. In general, the term “digital skills” refers to a range of different abilities, many of which are not only “skills” per se, but also a combination of behaviour, experience, know-how, work habits, character traits, inclinations and critical understanding, which is also noted in the Working Group on Education: digital skills for life and work, 2017 [10].

Digitalization and the growing trend towards online learning makes it difficult to develop the skills listed above, such as the ability to communicate. At the same time, according to numerous scientific studies, in particular by the German neurologist and psychiatrist Manfred Spitzer [11], digitalization becomes the cause of such a disease as digital dementia. According to the scientist, digital educational technologies can be a boon for those who already have an educational base, then they really contribute to the development and acquisition of new knowledge. The studies concerned school-age children and colleges, but after all, it is them that universities receive as freshmen, with already developed problems. Experts are calling a “crisis” and “epidemic” the protracted mental health problems of college students in America. The American Psychological Association supports this claim in a study of the prevalence of mental disorders among freshmen in eight countries, which found that 35% of them struggle with mental illness [12].

Since in the CIS countries digitalization later entered the field of education, in order to see the results already obtained over a long period, we resorted to research data presented in the reports of the International Program for the Assessment of OECD countries’ students’ academic achievements. Based on these on average, over the past ten years, countries that have made significant investments in information and communication technologies in education have not recorded any noticeable improvements in students’ knowledge of written comprehension, mathematics and science. And where digital technologies in OECD countries were used more than the average, academic achievements were significantly lower [13]. Therefore, we see conflicting requirements for the competencies of a person of the 21st century, and one of the most important problems in this area for reflection and resolution from a managerial, strategic position is how the inclusion of digital competencies can lower the quality of other competencies, in particular, the ability to communicate, learning, knowledge (deep) of culture and others.

In this regard, managers in education must find a middle ground, and both hybrid education and the Flipped class and Flipped learning can contribute to this. Managers, together with educators, must find a way to approach this form of education, and be able to encourage students to work together in a way that contributes to the development of the skills and competencies they need. Those who manage to find this balance between

online and face-to-face meetings will have a competitive edge in higher education by making their students more employable.

A study of the attitudes of teachers and students towards the use of digital technologies and the nature of their use in the educational process, carried out by the team of authors “Digital transformation in German higher education: the perception of students and teachers and their use of digital media” showed that the development of students’ ability to use various tools, including digital media for academic education depends on the ability of teachers to introduce digital technologies into the educational process and, to a lesser extent, on the policy of the administration. Teachers, however, the survey showed, mostly use digital learning management tools as an organizational mechanism for their classes (planning seminar topics, uploading materials, media), and not to promote improved student-centered learning technologies [14].

Another problem in the field of digital competencies lies in the level of information management, which today, as noted above, is one of the most important ones. “Earlier, editors, censorship filtered information for compliance with the accepted or dominant picture of the world, now there is practically no such filter at the output of information. The modern author of information is not interested in its correspondence to reality, but in accordance with the task of influence set before him [15, p. 83].

In this regard, the responsibility for selection and reliability criteria have shifted from the source to the addressee, the recipient, who is not ready for this or even simply does not want to think about it. Conflict resolution, overcoming stress involves a stereometric and even stereoscopic perception of information, a non-linear culture of obtaining and forming a more complete picture of what is happening and its comprehension. The formation of such a culture is just beginning [15, p. 87].

During the Covid-19 pandemic, the processes of digitalization of the main social and communication practices intensified even more, with the transition to a remote mode, it became obvious that the scale and content of online services, the technical quality of network communications, the ability and level of new skills of “existence” in the digital space acquire paramount importance. And in this series, an important role is played by the mass media (including social networks, instant messengers, traditional media), which, in conditions of self-isolation, have become almost the only way to maintain contact with the outside world.

There is still a long way to go before fully understanding the entire experience of the pandemic, but some of the lessons taught to the world by the pandemic, the digital environment and new communication formats are already clear.

Media expert E. Vartanova rightly notes that in a new environment, a person needs new literacy [16]. Indeed, the skills and abilities of media literacy, the level of media education are the key elements of digital skills of a modern person. The concept of “media literacy” refers to a set of skills to gain access to the necessary information, its correct characterization, evaluation and ethical use; the concept of media literacy reflects the ability to understand the functions of the media and the level of performance of these functions, as well as the feasibility of interacting with them in accordance with the interests of self-realization.

However, during the pandemic, people had to use them for professional and civilian purposes. Media education as a personal practice, digital media literacy as a personal



digital capital mark a new turn in the development of the education system. The pandemic has revealed that media literacy, which is now widespread, is not a harmoniously existing complex of “knowledge - skills” that arise as a result of systematic and purposeful learning, but a spontaneously formed complex that responds to individual requests and satisfies personal media communication needs [17].

In this regard, raising the level of media and information literacy creates the necessary competencies today from among the necessary digital skills with which modern university graduates can respond to those transformations and challenges, political crises, up to the threat to national and state security.

It must also be understood that even a systematic and consistent inclusion of media literacy programs in all levels of the education system is not possible in the absence of appropriate national policies. The starting point for this process should be an understanding of the national policy in the field of education and science, in the legislative sphere on freedom of expression and information, as well as international acts on human freedom in interaction with the policy in the field of media literacy. This discussion should move to the development of an appropriate national policy and analysis of key global trends and prospects for the preparation of media and information literate teachers and pupils/students. And further, it should focus on the role of teachers/educators in the formation of a media and information literate society.

## 4 Conclusion

Thus, taking into account some of the trends in higher education discussed above, the focus should be on the development of such managerial competencies that meet the modern requirements of the digital agenda, including the digital competence of teachers and media and information literacy. First of all, in our opinion, the use of digital technologies in the educational process should be based on the medical principle “do no harm”, so that the competencies, skills and abilities of the intellectual capital of society (it is already being formed in schools and colleges) would not decrease as a result and be replaced, one might say, with the inappropriate and excessive use of digital technologies. Just as in a social organism, a balance between spheres and an understanding of the goals of the changes taking place in society are necessary, there is a need for a balance of competencies and skills for a modern person.

The development of the necessary competencies of managers and teaching staff of universities in the context of digitalization can play an important role in improving the quality of education if it is based on such an attitude towards digital technologies that leads to an awareness of their new role in the implementation by the university of its main mission - the reproduction and development of the society. We think that further research is needed on the impact of new technologies on students (increasing personal and professional competencies, digital skills, mental and physical health) and on the quality of the educational process, so that education management remains human-centered and a balance is found between digital, professional and personal competencies of modern intellectual capital.

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