FORMATION OF THE FUTURE SPECIALIST IN THE INTELLECTUAL SMART EDUCATIONAL ENVIRONMENT OF HEE

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The transformation of the education system observed in Ukraine indicates that Smart-education is gradually replacing the usual classroom and electronic distance learning, which acts as an auxiliary tool of traditional education with a limited range of applications. The concept of Smart-education is aimed not only at providing the highest possible level of training of the personnel who possess creative potential, are able to quickly and effectively find and use information, realize themselves in the conditions of a rapidly changing professional environment, but also adapt in an innovative society.

Nowadays, there is a need to justify Smart-education from the standpoint of the natural direction of professional education development in Ukraine: recognition of the latest knowledge sources, changing the teacher's role in the educational process, the need for the integration of scientific and educational knowledge, providing students with the opportunity to acquire professional competencies based on a systemic multidimensional vision and the disciplines study taking into account their multifacetedness and continuous content updating in the training of a future specialist in higher education, etc.

We are convinced that the concept of Smart-education must be implemented through:

1. Creating an intellectual environment for professional training of a future specialist at the HEE, the technical base of which is modern digital devices and gadgets, information and communication technologies, artificial intelligence tools, etc.

2. Comprehensive modernization of educational processes, as well as methods and technologies, which will allow to build a new process of developing meaningful educational content, its actualization and perception.

Special attention should be paid to the management of educational content. For this purpose, it is necessary to constantly adjust educational resources, supplement with information from sites and blogs, web quests, etc. For this, it is also necessary to implement the management of academic knowledge, which will ensure flexibility in the development and use of educational content.

Today, the following main principles of Smart education are highlighted:

1. Real-time use of relevant information for solving educational problems.

2. Organization of students' independent cognitive, research, project activities.

3. Implementation of a continuous educational process in a professional environment with the use of appropriate Smart tools and technologies.

4. Flexible educational trajectories of training a future specialist in HEE.

In scientific studies, "attention is emphasized on three important elements of Smart-education, which determine the disclosure of its potential and creative possibilities: innovativeness, flexibility and creativity" [3, p. 7]. Scientists claim that "the innovativeness of Smart-education is determined by its understanding as a practice-oriented method, which enables the teacher to purposefully build the educational process in higher education establishments according to his own trajectory, taking into account the relevant program, and the flexibility of Smart-education is due to its significant potential for creating high-quality educational content and its activity elements in cooperation with the participants of the educational process, which can represent different fields of knowledge" [3, p. 7]. "The creativity of smart education is determined by the development of students' critical thinking, the ability to independently plan and organize all stages of their own educational activities, in particular, from the goal's formulation to the implementation of various project operations, from the project's implementation to self-control and self-evaluation and reflection" [3, p. 8].

"Thanks to the use of Smart technologies, new education quality management systems are developed and implemented, the integration of education, science and innovation is achieved, and educational clusters are created. Smart education is not only a system of innovative technological solutions, but also a new philosophy of education" [2, p. 56].

The research focuses on the following trends in Smart education development:

1. Distance education is becoming a leader in educational technologies.

2. Gamification improves the learning quality and helps increase its motivation.

3. Personalization of education allows each student to be promoted along an individual educational trajectory.

4. Individual psychological properties of the personality become the basis for the learning motivation development, intellectual potential, and creativity of the future specialist.

5. "Interactive manuals contribute to a fundamental change in the traditional linear structure of the educational course and its textual presentation, which will ensure the multidimensionality of the modern educational process." [1].

At a sufficient level of Smart technologies development and intensity their penetration into everyday life is based on the need to develop an intellectual educational environment of higher education establishments, which unites:

– the interaction of the participants of the educational process in the open model of asynchronous individual training;
– databases and knowledge bases, libraries, electronic textbooks (manuals), etc.;
– educational and methodical complexes, materials, etc.;
– software, means of electronic communication [5].

S. Chun presented the concept of an intelligent learning environment, which can be considered as a learning environment supported by Smart technologies. They implement

adaptation processes and provide relevant information support in the right places and at the right time to students, analyze their learning behavior, results, etc[6].

Scientists note that "the infrastructure of the intellectual environment of Smart education is based on the use of data centers on the platform of cloud technologies, interactive electronic whiteboards, tablets, gadgets, 3D projectors, appropriate document camera software. After all, SMART involves increasing the "intelligence" level of technical devices that form an environment for intellectual activity. This gives grounds for considering Smart-education as a didactic process using technological innovations and the Internet, which enables the development of the future specialist's intellectual potential based on a systemic vision and the disciplines study, taking into account the various technical capabilities of Smart-technologies, as well as their individual needs" [2, p. 57].

The implementation of developed models of electronic educational resources of pedagogical systems use based on Smart-technologies allows to implement Self Directed - the student's choice of an individual learning trajectory, providing opportunities to independently work out the discipline sections, ensuring the effectiveness of the educational process through the systematization of knowledge, skills and abilities; Motivated – increasing motivation for learning and self-education, for the activation of educational activities, which will contribute to the development of creativity and contextual thinking; Adaptive – adaptation of the training system to the user's needs; Resourse Free – free access to electronic educational resources, student participation in the collective development of Smart resources of the academic discipline and EER metadiscipline, EER collective management; Technology Embedded – provision of the educational process with modern technologies, perception and understanding of information and communication technologies as an organic activity's component [4].

Studies show that "curriculums developed on the basis of Smart technologies should create a single electronic intellectual educational space, become a kind of entry point not only to the system of extended educational materials, but also to the Smart educational space itself, which contributes to the socialization of one of the most important functions of Smart-education. In this way, the curriculum acts as a means of developing a future specialist's intellectual competence in HEE" [2, p. 59].

Thus, the significance of modern Smart technologies in the intellectual educational environment of HEE lies in their focus on the potential opportunities of the subjects of the educational process, on the realization of their creative and scientific interests, on the growing role of independent work and increasing responsibility for the academic activity results. Such approaches create the basis for purposeful formation of a future specialist in the intellectual environment of professional education in higher education establishments, a holistic system of their professional thinking as a basis for quality future professional activity.

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