Analysis Of The Development Of Learning Process Management In The Context Of Digitalization

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ARTICLE INFO	ABSTRACT
Volume: 1 ISSN: **KEYWORDS** Training, Digitalization, Education, Modernization, Strategy Innovation.	The strategy includes the reform of the traditional education system and the introduction of new digital technologies and digital pedagogies. Digital literacy should be included in the curriculum of formal education, and non-formal education institutions, such as libraries, museums, and community centers, should also offer training programs for digital skills. Furthermore, teacher training programs should be enhanced to enable educators to use digital technologies effectively in their teaching. Collaborative projects between academia and industry should also be encouraged to provide students with practical experience and skills relevant to the labor market. To improve the management of the learning process in the context of digitalization, the use of learning analytics is also recommended. Learning analytics is the process of collecting and analyzing data from educational contexts to improve learning outcomes. This approach allows educators to tailor their teaching methods to individual learners and identify areas where students may need additional support. Moreover, online learning platforms and Massive Open Online Courses (MOOCs) can provide opportunities for learners to access education and training regardless of their location. These platforms offer a flexible learning environment that suits the needs of learners with different learning styles and preferences. In conclusion, improving the management of the learning process in the context of digitalization requires a combined strategy that includes the reform of traditional education systems, the integration of digital technologies and digital pedagogies, and the use of learning analytics. Collaboration between academia, industry, and non-formal education institutions is essential to ensure that learners are equipped with the necessary digital skills for the labor market. The successful implementation of these approaches will enhance the quality of education, increase employment opportunities, and contribute to the overall well-being of citizens and the economy.

1. Introduction

The most advanced and successful countries in the context of the global information society, intense competition, and rapid changes are directing their state policies towards the modernization of educational activities, namely training a new generation of specialists who can compete in the modern job market, act in non-standard situations, and adapt to current conditions (Agamirov, 2017). In this context, countries are facing the problem of finding effective ways and innovative approaches that will contribute to the quality of future specialist training.

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The study of learning management issues in the context of digitalization is reflected in the works of EN Babin1, TE Davydova2, EK. One possible way to address these issues is by digitalizing the educational processes of higher education institutions since universities are cells for designing the latest technology and serve as a launchpad for implementing innovations, which generally ensure the development of every field of human activity and contribute to socio-economic growth (Ernando, 2020). At the same time, the concept of "digitalization" has been established relatively recently and is associated with the widespread penetration of information and communication technologies into the daily life of modern society.

2. Literature Review

The study of learning management issues in the context of digitalization is reflected in the works of EN Babin, TE Davydova, EK Karpunina, SK Kuizheva, ID Stolbova, NV Fedorova, and others. These scholars address the issues of reforming and modernizing existing higher education systems to meet the challenges of the modern age and explain several ways to overcome the risks associated with the emergence of social isolation phenomena in communities lacking adequate knowledge of innovative technologies (Shelygov, 2019). Some of the issues above are a challenge in education in Indonesia as well, due to the limited distribution of access to available information and exacerbated by inadequate human resources. However, as a developing country, Indonesia continues to make improvements, especially after going through a pandemic which demands that we no longer turn a blind eye to adjusting life with digital products in the educational sphere.

3. Methodology

The theoretical and methodological basis of this research is to conduct a meta-analysis of abstract-logical methods, inductive and deductive methods, analysis, synthesis, and systematization - to justify the approach of identifying and studying the level and trend of parameters of digitalization development in higher education in the context of globalization.

The information basis of the article is statistical data from state institutions, legislation and regulatory documents that regulate the management of higher education systems in the context of digitalization, evaluation of the effectiveness of the regulation of higher education systems, and scientific research results.
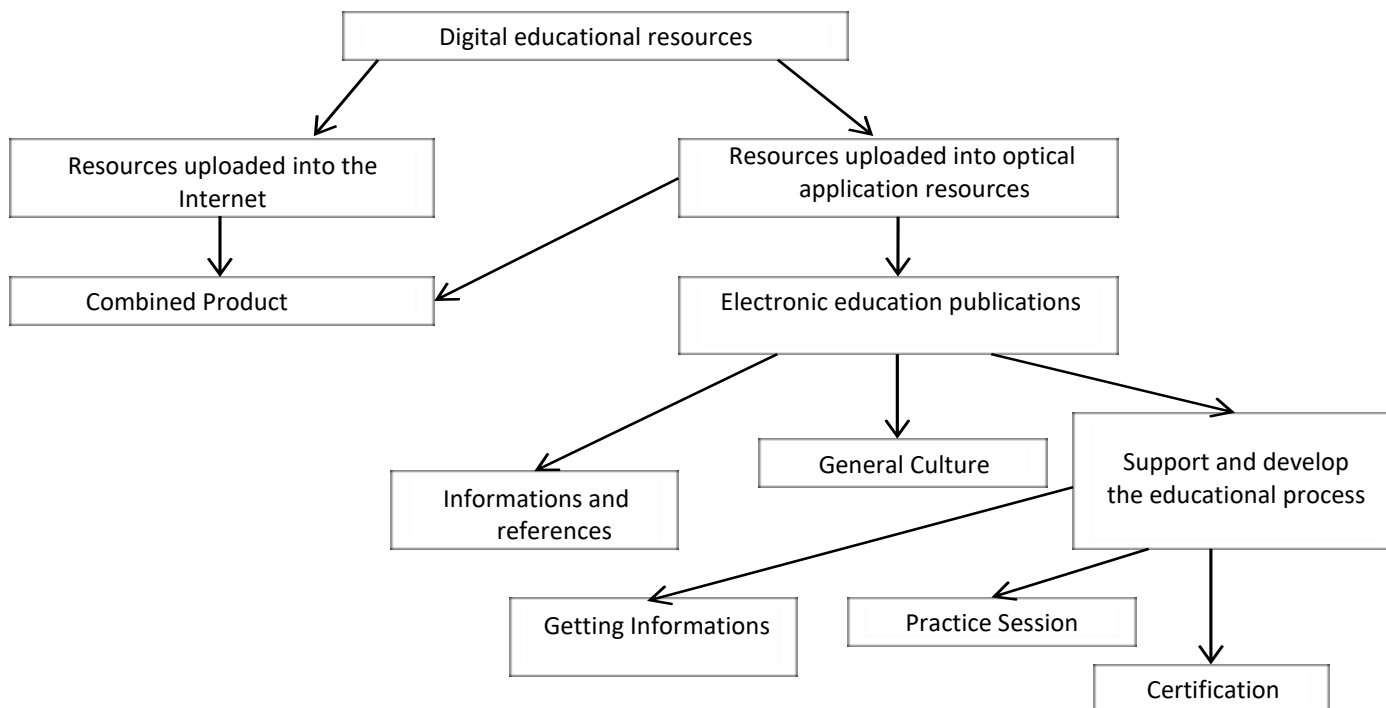
During the study, it is planned to consider options for new learning processes, justify the prospects for the development of the education system in the context of digitization, and analyze the education system to confirm the parameters of its effective functioning.

4. Results and Discussion

The digital revolution is currently happening, involving the shift from analog to digital methods for data processing, storage, and transmission. This is facilitated by advancements in hardware and software, resulting from scientific research and favorable socio-economic conditions. It also allows for the creation of digital educational resources.

Most often, digital technologies and systems are mentioned in combination with multimedia formats for presenting and processing information (for example, digital television, photo, video, and audio equipment), as well as digital communication systems (Ogloblina, 2020). At the same time, all types of computers present and process data in digital formats to varying degrees. It is a digital technology that allows high-speed manipulation of data, including when transmitting over analog or digital communication channels.

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                        │ Digital educational resources│
                        └─────────────────────────────┘
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┌──────────────────────┐            ┌────────────────────────────┐
│ Resources uploaded   │            │ Resources uploaded into     │
│ into the Internet    │            │ optical application         │
└──────────────────────┘            │ resources                   │
          │                         └────────────────────────────┘
          ↓                                    │
┌──────────────────────┐            ┌────────────────────────────┐
│ Combined Product     │ ←          │ Electronic education        │
└──────────────────────┘            │ publications                │
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Combined Product

Informations and references

General Culture

Support and develop the educational process

Getting Informations

Practice Session

Certification

Computers, telecommunications, and Internet network services can process this digital data, which gets there by converting various types of analog signals (Karpunina, 2019). Then, this data is combined with devices and programs in new formats in digital form, resulting in different format combinations. At the same time, given the rapid progress of science and technology, there is a need to implement the digital revolution in the education sector, because the modern information society fundamentally requires a new approach to obtaining high-quality education.

In this context, it is necessary to find new means and ways to train highly qualified specialists who will know the basics of digital literacy and will be able to develop, implement and disseminate digital education. These goals can be achieved through an established educational process in tertiary institutions. Taking this into account, one of the priority tasks in the direction of digitizing the educational process in higher education is a clear definition of the concept of "digitalization" and the definition of its main guidelines in education.

Practice has shown that digitization helps simplify the educational process, makes it more flexible, adapted to the realities of modern times, which in turn ensures the formation of competent professionals. (Danilchenko, 2019) Digitalization in education is aimed at ensuring the continuity of the learning process, namely lifelong learning, as well as its individualization based on advanced learning technology, namely the use of significant data in learning in the process of mastering certain disciplines by individual students.

The digitization of education directly depends on the level of proficiency in digital technologies of teachers to use them productively in educational activities. Among other things, there is a need to develop the ability to navigate digital information flows, work with them, process them and integrate them into new training technologies. Therefore, the information format is based on the digital representation of the information.

However, unlike the electronic format, the digital format more accurately represents information, ensuring its free circulation, placement, processing and use in computer networks. Consequently, digital education systems include information resources, telecommunications, and management systems. Digital technology in the modern world is not just a

tool but a living environment that opens up new opportunities: learning at any time, continuing education, the ability to design individual educational routes, from consumers of electronic resources to becoming creators of knowledge.

Thus, the digitization of education involves the use of mobile technologies and the Internet by students, broadening their knowledge horizons, making them borderless. That is why, the productive use of digital technologies, the inclusion of students in independent search, selection of information and participation in project activities form new competencies for them.

As a result of the recent pandemic, the process of creating and implementing open online resources has been actively implemented, ranging from individual assignments and tests to full-scale courses (modules) on building the necessary competencies. In this case, the dynamics of online learning is indicated by the increasing availability of online courses. Among other things, the addition of areas for implementing digitization in education is intended for the development of digital libraries and schools.

Research shows that the development and content of online courses is carried out using software solutions that enable the creation of courses from available information sources and in a custom software environment, author systems, and automated design. The education system, using new technological tools and unlimited sources of information, must strive to apply them effectively in the educational process.

The digital environment requires teachers to have a mentality, a different world view, better ways and forms of working with students, as well as digital literacy, which refers to the ability to create and apply content using digital technology, including computer programming, search, exchange of information., and communication skills. Elements of digital literacy include understanding the cultural context of the Internet environment and the ability to communicate in online communities and create and distribute content.
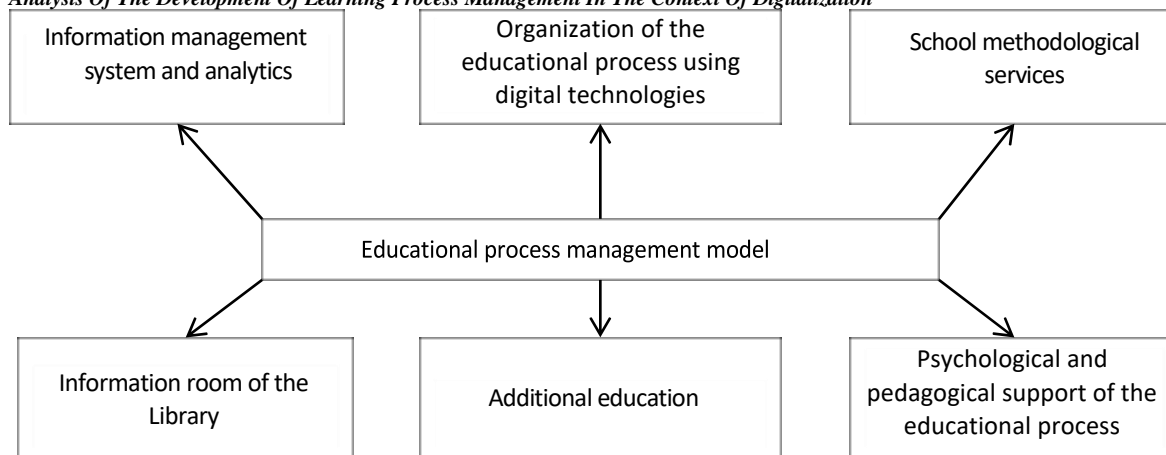
The content of digital literacy boils down to the understanding that if there is clarity in the structure and content of digital reality, then there will be clarity in mastery and interaction with digital technology. Meanwhile, the management of digitization in the educational environment is carried out through digital marketing, which aims to manage interactions with educational, research and teaching staff, graduates, students and applicants using various digital communication channels, as well as monitoring changes in the formation of a positive image of the university.

Today, every higher education regardless of the chosen strategy, faces the task of undergoing digital transformation, which involves introducing more flexible processes, changing corporate culture and optimizing processes. This transition is caused by several factors. First, almost all students show a much greater tendency to apply new technologies in their daily lives. This is especially true for Internet technologies, as well as their application not only in the professional field but also for socialization and communication.

Therefore, it is possible to formulate the main tasks of digitization that should be set for tertiary institutions: providing training and further training for university teaching staff on the use of digital technologies in educational activities; applying digital technology in the educational process; provide opportunities for collective use of digital resources and free access to them in cloud services; ensuring an increased level of motivation for the professional use of digital technologies by teachers and students; creating innovative conditions for development through the introduction of digital technologies; providing information and consulting services on the use of digital and cloud technology with unlimited resources; collect, systematize.

Thus, the digitization of a higher education will be more in line with its target audience. This will increase the competitiveness of universities in the education market, create added value, and attract students. The second argument is the increasing competition between higher education institutions, especially well-known universities. Therefore, given the globalization of the market, students' struggles will be carried out using the educational process management model in the context of digitization

Information management system and analytics	Organization of the educational process using digital technologies	School methodological services

Educational process management model

Information room of the Library	Additional education	Psychological and pedagogical support of the educational process

The creation and maintenance of a university's competitive advantage will be determined by the timely introduction of new technologies and, as a result, readiness for fundamental changes towards a new generation of education systems. The third argument arises from the need to digitize internal university processes to increase the efficiency of interactions between departments at the level of all educational institutions.

Digital technology provides several new opportunities for teachers and students, in particular: getting satisfaction from an exciting process of communication and learning; automate most of the teaching work, freeing up time for search, communication, self-development, individual work with students; provide feedback; placing students with poor training in leadership roles, which generally contribute to the success of the entire academic group; correcting the individual development of the future specialist; increase the effectiveness of the management of educational processes and education in general (Reznikova, 2020).

The main direction of digitization of higher education is the creation of educational resources and digital platforms with support for interactive and multimedia content for general access of higher education institutions and students, in particular, tools for automating the main processes of higher education; development and implementation of innovative computer, multimedia and computer-oriented learning tools and equipment to create digital learning environments (multimedia classes, research laboratories, inclusive groups, mixed learning groups); organization of free Internet access for students in high school classrooms; development of distance education using cognitive technology and multimedia.

The reliability of the presented approach is confirmed by the fact that digital technologies make the educational process mobile, different and individual. However, they do not replace teachers but complement them harmoniously. Classes based on the use of digital technology are characterized by adaptability, manageability, interactivity, a combination of individual and group work, as well as time bound learning.

In addition, information, communication and digital technologies provide opportunities to intensify the educational process and increase the level and quality of perception, understanding and assimilation of knowledge. By using interactive media and tools, it is easier for teachers to adopt teaching approaches based on the introduction of innovative approaches, including use of "cases", experimental search work, and business games. As a result, students learn information much better and develop appropriate skills, are in an emotionally comfortable environment, and do not lose their desire to learn, generate ideas, and create.

5. Conclusion

In conclusion, the massive and branched formal education system does not meet the needs of the labor market and is unable to form quality human resources. Not working for the welfare of autonomous citizens and significantly reducing their employment opportunities and capitalization, that is, the economy and the state, in general, lose. As for the commercial segment, the situation is somewhat better, because more modern methods are used here, and the technical support and motivational component of teachers is much higher.

Approaches, solutions, and digital literacy development initiatives through formal academic education and non-formal education will differ based on their specificities. Thus, the providers of training services in the first segment are the state and in the second segment - commercial companies. Meanwhile, the key solution to the problem could be a mix of strategies, where there are long-term measures and scale inherent in the country's education system and short-term quick actions, which are more relevant to implement in the digital education segment.

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