

THE IMPORTANCE OF MODERN DIGITAL TECHNOLOGIES IN EDUCATION QUALITY MANAGEMENT

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ABSTRACT

The article examines the role of modern digital technologies in education quality management. The author analyzes how digitalization contributes to the automation of processes, monitoring and evaluation of academic performance, as well as the individualization of educational trajectories. The article describes such tools as learning management systems (LMS), electronic platforms for testing and adaptive learning, which help improve the transparency and effectiveness of the educational process. Particular attention is paid to the inclusiveness and accessibility of education, as well as the need to improve the digital literacy of teachers for the effective use of technologies in the educational environment.

Keywords: digital technologies, quality management of education, automation of processes, personalization of learning, electronic assessment systems, adaptive learning.

INTRODUCTION

Modern digital technologies have become an integral part of education quality management. They can significantly improve the educational process, facilitate the organization of training, as well as the assessment and control of the quality of education. Digitalization opens up new opportunities for automation and personalization of the educational process, which contributes to the efficiency and transparency of educational systems. This article will consider the key aspects of using digital technologies to manage the quality of education, as well as their impact on educational systems.

1. Automation and data management

One of the main advantages of digital technologies in education is the ability to automate management processes. Modern platforms for managing educational processes, such as Learning Management Systems (LMS), allow you to collect, store and process huge amounts of data related to student performance, attendance, assignments and other aspects of learning. Examples of popular LMS are Moodle, Canvas and Blackboard, which allow you not only to manage educational materials, but also to monitor academic performance in real time. This gives administrators and teachers the opportunity to quickly respond to emerging issues, promptly adjust curricula and individualize approaches to each student. In addition, digital platforms can analyze big data, which helps identify trends in education and determine which teaching methods are most effective. This analytical approach allows educational institutions to more accurately evaluate their programs and adjust them to achieve high quality standards [1].

2. Electronic assessment and control systems

Technology allows modernizing the processes of assessing student knowledge. Traditional methods, such as written exams and tests, can be supplemented or replaced by electronic assessment systems, which speed up the process of verification and make it more objective. Electronic exams and tests can include a variety of assignment formats, such as multiple choice tests, matching problems, essays, and even automated programming assessment tasks. The use of digital assessment tools, such as TestWe or ProctorU, helps ensure the objectivity and transparency of assessment procedures. This is especially important in the context of distance learning, where electronic systems help prevent cases of cheating and cheating thanks to video surveillance functions and analytics of student activity during the exam.

Digital technologies also allow for formative assessment, which is used to continuously monitor students' progress during the learning process. This helps teachers adjust the learning process at an early stage, improving the quality of education [2].

3. Personalization and adaptive learning

One of the key trends in education quality management is the personalization of learning. Modern digital technologies make it possible to create adaptive courses that are tailored to the individual needs and level of preparation of each student. Artificial intelligence (AI)-enabled platforms such as Knewton and Smart Sparrow use algorithms to analyze learning data and create personalized programs for students.

Adaptive learning helps improve the quality of education through an individual approach that allows each student to progress through the program at their own pace. This is especially important in the context of inclusive education, where students with different abilities and levels of preparation can have an equal chance of success. Personalization helps reduce student dropout rates, increases their engagement and satisfaction with the learning process [3].

4. Digital literacy and professional development of teachers

For the effective use of digital technologies in education quality management, improving the digital literacy of teachers plays an important role. The introduction of technologies requires teachers to master new tools, such as LMS, assessment systems, as well as skills in using digital educational resources (DER).

Professional development programs, such as courses on digital pedagogy or training in working with AI in education, help teachers implement modern approaches in the teaching process. This allows not only to maintain a high level of teaching, but also to improve the overall quality of education.

In addition, the use of digital technologies helps teachers collect data on student performance, which allows them to manage the educational process more effectively and make decisions based on data. This helps improve the quality of teaching and create educational programs that more accurately meet the needs of students [4].

5. Ensuring accessibility and inclusion

Digital technologies play an important role in increasing the accessibility of education for all categories of students. Electronic learning resources, distance learning platforms, and adaptive technologies help provide equal opportunities for students with special educational needs or disabilities.

Technologies such as speech synthesis for students with visual impairments or subtitles for students with hearing impairments allow for the inclusive involvement of all students in the learning process. In addition, distance learning programs using digital technologies help overcome geographical and social barriers, providing access to quality education regardless of the student's place of residence [5].

6. Real-time monitoring and quality management

Digital technologies allow for continuous monitoring of the quality of education. Data collection and analysis tools help educational institutions monitor key indicators of educational quality, such as academic performance, attendance, student and teacher satisfaction. This helps promptly identify weaknesses and implement necessary changes.

Modern systems, such as Tableau or Power BI, allow you to create dashboards that provide visual data on the state of the educational process in real time. This helps the management of educational institutions make informed decisions to improve the quality of education.

Digital technologies play a key role in managing the quality of education. They not only automate management and assessment processes, but also create opportunities for personalization of learning, teacher training, and inclusivity. It is important that educational institutions continue to implement and develop these technologies to achieve high standards of educational quality and provide students with the best educational opportunities.

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