

## **Information and Communication Technologies in Education LMS Systems**

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**Annotatsion:** Information and communication technologies (ICT) are playing an increasingly important role in education, creating new opportunities for improving learning and sharing knowledge. One of the main components of ICT in education is educational management systems (Learning management systems, LMS).

**Keywords:** LEARNING MANAGEMENT SYSTEMS, ICT, Blackboard, Moodle, and Sakai, LMS, multimedia.

New trends and strategies for integrating ICT into everyday educational practice are a necessary condition for the modernization of the educational system. Today, ICT is the driving force and coordinator of the increasing globalization of the educational environment. Educators understand that the combination of digital technologies and resources offers more opportunities to improve the quality of education and training than any previous educational technology. Digital learning materials differ from traditional ones in their controllability. ICT is a facilitator because the Internet is a unique tool for wide and convenient distribution of educational materials. As the Internet has also become a means of communication, its teaching and learning capabilities have increased. Most importantly, it is the students who are affected by the introduction of ICT at all stages of education. It is essential to develop a set of automatic and non-automatic interactions between machines, people and systems for various processes. Many attempts to introduce ICT into the educational process have disappointed their initiators, because they did not pay enough attention to the systems used, the people and their interactions. Many organizations have already defined the goals of introducing ICT into the educational process, developed norms and standards for the use of appropriate tools for teachers. 8 LEARNING MANAGEMENT SYSTEMS (LMS) Three of the most popular LMS systems (Blackboard, Moodle, and Sakai) provide the concentration of learning materials and courses and include course management, registration, course planning, discussion forums, blog sites, evaluations. Covers Key features of the LMS include password-controlled access to selected courses. The LMS tracks which materials a student accesses and how much time they spend on them. This is where the learning activity analysis is done to collect the data available in the LMS about the learner activities. LMS enrollment systems contain basic student information such as enrollment information, course selection, course outline, competency objectives, study time, and tracking information. An LMS is also used as a repository for training, resources, and materials. For example, a course developer may provide commercial materials or, conversely, freely available open educational resources. Materials can be presented in various formats - from simple text to interactive multimedia. There are three main types of communication tools in an LMS: e-mail,

forums/webinars, and chats, which can also be used to engage students in publishing materials or serve as download mechanisms through blogs or wikis, links to other web resources. , like libraries. **SOCIAL MEDIA** Social media allows people to communicate through ICT. In other words, social media is a means of social interaction. In various countries, there is a tendency to increase the importance of social networks in the field of education. In particular, the practice of private, elite, individual education is becoming more and more widespread, which leads to a decline in the role of traditional public education. This trend threatens one of the most important functions of education - socialization. In this context, social networks allow young people to maintain many connections with their peers based on common interests (such as sports or creativity, collective online learning activities, knowledge sharing). Social media has spread rapidly as a result of the emergence of systems that enable virtual presence. The term "virtual presence" refers to the mediated interaction of people using media communication channels (for example, video conferencing and, relatively recently, Twitter, Facebook, etc.) network platforms that replace face-to-face communication. In this context, Web 2.0 is a platform for new social phenomena such as social clustering, cloud computing, and finally the online community. Social media has enhanced the social interaction of remote users, giving them greater scale, dynamism and influence. It is these trends that guarantee and enhance the potential educational impact of social media when students are denied formal education. The most popular way to use new media in the educational process is to include the competencies that are closest to them in the list of skills provided in the curriculum and program. The concept of "media education" has already been developed, which provides students with the social communication skills necessary to enter the global media space, network etiquette and information security. Thus, systematic education is needed to make youth more aware of social media use and maximize creativity in education. Social media allows readers to think critically and think objectively about a poorly covered topic. Ecology, sustainable development, cultural tolerance, moral issues can be a vivid example of such topics. Their discussion through social media gives students an opportunity to demonstrate their views and understanding of events. As a result, the next generation will master a certain topic much better, and students will have more ownership of its development. At the same time, the prevailing view is that education and social networks are incompatible. But experience shows that social networks expand opportunities for learning outside the educational institution, stimulate joint work of students, their interest and communication [2, 3]. Although social networks in educational institutions are not yet a complete solution to traditional learning problems, they offer opportunities to bring changes to educational practice. For example, in the context of continuous learning during professional activity, they simplify the process of familiarizing specialists with practical solutions, new trends and topics in a certain professional field. **CLOUD TECHNOLOGIES** In today's world, educational institutions cannot function effectively without ICT. Educational services are provided to students and teachers through the Internet. The purchase and maintenance of various computer equipment and software requires constant large financial investments and the involvement of qualified specialists, therefore, educational institutions are increasingly using cloud technology services, providing them for free or for a small fee. Takes for a fee. Often, such services are more convenient and reliable than hosting or maintaining them in the educational institution itself. Cloud technologies have: remote data centers. Cloud services are provided over the Internet from high-tech data centers located far from the end user and the organization to which he belongs; pooled resources. Resources such as storage devices, processors, RAM, and network bandwidth are shared among all users and dynamically allocated as needed; "elasticity" - "infinite" scalability. Access to the system is preserved even when there is an unexpected "peak" of requests, so the user gets the impression that resources can be increased indefinitely. If the educational institution suddenly has to increase the computing load, it will not be forced to purchase additional equipment, which will not be used later [3, 4]. Some educators mistakenly believe that cloud computing refers to any service provided over the Internet that is not developed in-house. Often the term "Web 2.0" is confused with the term "cloud technology". Web 2.0 is a specific type of software, and cloud

computing is a way of storing data and delivering software to the end user. MOBILE LEARNING Today, mobile learning provides new communication and collaboration tools. However, this requires financial investment and teacher training. Pedagogically, education can be compromised and fall into a philosophy of self-education and superficial collection of random facts, where depth of understanding of the subject is no longer valued. Therefore, a number of steps should be taken to develop mobile learning, in particular: recognizing the value of learning in non-traditional, informal or everyday environments, self-awareness of students through the use of mobile learning tools urge to strive for; ; providing geographically dispersed students with mobile technologies to share knowledge and experience; creation of administrative and legal norms of mobile education together with educational institutions; encouraging teachers to continuously learn by improving teacher training, using personal mobile devices, and improving their teaching methods; discussing with telecommunications companies the possibility of reducing the cost of mobile Internet access for mobile education. An important aspect here is to increase the availability of educational resources. In the field of education, the concept of "availability" can be interpreted in relation to students and educational resources themselves. The development of standards in this area began in the late 1990s. Global Learning Consortium (IMS GLS). International standard approved by the International Organization for Standardization Organization for Standardization - ISO) in 2008 [1, 2, 5]. The concept of an accessibility standard is based on the recognition of the need to adapt resource metadata to the preferences of readers. For example, resource metadata can include pointers to alternative audio and text formats so that readers can select a particular type of media resource. The learning platform then analyzes resource metadata and learner preferences to deliver the appropriate type of resource for a given user. Such accessibility is useful for students with special needs. Since the most important feature of the innovative learning platform is to support the operation of different devices and learning environments for teachers and students, accessibility issues depend on the characteristics of students. Should be solved as it is. Learning platform.

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