

**Сравнение между различните образователни среди:  
MS Teams, Blackboard Learn, Moodle, Canvas, ILIAS**

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**Comparison Among Different Educational Environments:  
MS Teams, Blackboard Learn, Moodle, Canvas, ILIAS**

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**Abstract:**

During the process of creation of the so called “virtual university”, a very important prerequisite is that each discipline should have a web site and virtual labs for simulation of the real environment. Typical educational environments facilitating that process are MS Teams, Blackboard Learn, Moodle, ILIAS, Big Blue Button.

The paper compares those educational environments in terms of their accessibility, advantages and drawbacks. On the other hand, the MOOCs or Massive Open Online Courses are examples of high level of digitalization of education that necessarily always leads to quality of the academic approach. In other words, innovations sometimes are detrimental to the quality of education.

Asynchronous distance education enables access to videos and presentations in time that is convenient for the student. This type of education is most preferred among working students without having negative impact on the quality of the educational process. In addition, this type of education enables flexibility, independence and calmness among students and this is utterly important in the chaotic and messed world of today. The process of gaining knowledge is not dependent on the access of Internet, quality of the network and the speed of downloading of educational materials.

**Keywords:** educational environments, virtual universities, asynchronous education

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**INTRODUCTION**

Different educational environments exist, aiming to facilitate education online.

According to the Strategy for Development of the Higher Education in Bulgaria for the period 2021-2030 [8], one of the visions of the future is to introduce contemporary, flexible and efficient forms of education (p.41, *ibid.*). Creation of the so called “virtual audiences” and open access MOOCs in English are ways towards flexible methods of teaching and research.

**COMPARISON AMONG EDUCATIONAL ENVIRONMENTS**

The table below compares four different types of educational environments in terms of three features: accessibility, advantages and disadvantages. The four educational environments could be divided in groups of two: MS Teams and Blackboard (BB) on the one hand and Moodle and CANVAS on the other hand. Moodle and CANVAS are the two environments that facilitate MOOCs. Moodle integrates the BigBlueButton application.

Features for comparison	MS Teams	BB	Moodle	CANVAS
Accessibility	-only after <b>subscription</b>	-Accessibility in Bulgarian language	- <b>open source</b> LMS (source: 2)	- <b>open source</b> LMS (source: 2)

**ЧЕТВЪРТА НАУЧНО-ПРАКТИЧЕСКА КОНФЕРЕНЦИЯ С МЕЖДУНАРОДНО УЧАСТИЕ  
„ДИГИТАЛНА ТРАНСФОРМАЦИЯ НА ОБРАЗОВАНИЕТО –  
ПРОБЛЕМИ И РЕШЕНИЯ“**

		-user friendly: easily available information (p.15, source:7)	-includes mobile app as well as webinar application	
Advantages	-advanced security with end-to-end encryption (source: 1) -focused communication with private channels -integration and compatibility with MS Teams -enables remote work -enables recording of meetings and asynchronous education (source: 1) -enables proactivity of each participant (source: 3)	-security: works with licensed software -extended contents -many different types of files that the system works with (p.12, source:7) -structured content -lectures may be uploaded in pdf format or directly read online -real-time test evaluation as number of points -allows creation of personal website	<b>-available for many users simultaneously</b> -integrates BigBlueButton (source: 2) -detailed recommendations on how to create online courses and larger communities of followers on different topics	<b>-adaptive and secure system</b> -available for free for education of instructors -one of the MOOC systems (source: 2) -enables the process of learning throughout all the life -saves time and accelerates the process of gaining knowledge
Disadvantages	-widely used -ineffective when many participants use video -requires 365 subscription and high internet	-records the last five actions that you have performed	-each participant can modify the content	-each participant can modify the content

	stability and high storage consumption			
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Table. 1. Comparison among educational environments.

Sources: G. Marinov, Practical Manual for Work with the BLACKBOARD LEARN 9.1 at RNDC, Sofia, 2016 [7], E. Rieth, “The Pros and Cons of Microsoft Teams” [1], [2], [3]

The second table compares cloud based and open source LMS and comes to the conclusion that cloud based LMS do not need installation and provide 24/7 hour support while open source LMS need manual actualization. Another difference is that costs are based on personalized needs in cloud based LMS while open source LMS need installation.

<b>Cloud Based LMS</b>	<b>Open Source LMS</b>
No need for installation, increases speed	Needs installation
Hosted on the vendor’s server, providing security and data support from the vendor 24/7	User takes care of data maintenance, manual actualization
Costs are based on each client’s needs: personalization	Does not require a large budget

Table. 2. Comparison between Cloud Based and Open Source LMS.

Sources: S. Denchev, D. Stoyanova, The Value of European University Education in the Context of COVID-19, 2020 [3]

The third table focuses on specific features of ILIAS LMS that is the most appropriate for shared standardized content in specific structures that share classified documents.

<b>Features for Comparison</b>	<b>ILIAS</b>
Accessibility	Only after <b>specific installation</b>
Advantages	Compliance with international standards Open source Flexible Customized learning experience for students Enables collaboration among platforms Enables digitalization
Disadvantages	Requires specific skills for installation Complex structure of the system, suitable only for large organizations Limited Community Support

Table. 3. Specifics of ILIAS Educational Environment.

Source: E. Yilmaz and others, A Comparison of Open-Source Learning Management Systems Used for Distance Education in Higher Education Institutions, 2024 [9]

According to a table on p.8 in E. Yilmaz and others, the technical details of LMS platforms show that while Moodle supports the largest number of languages (100), and consequently the biggest number of users, ILIAS has comparatively low number of

supported languages (28) and no data available for number of users. Canvas is somewhere in between the two other LMS mentioned above with 34 supported languages. The biggest advantage of ILIAS is SCORM (especially metadata) compliance that enables the use of standardized learning materials.

## CONCLUSION

In conclusion, educators may think of alternative of both cloud based and open source LMS, called talent LMS that comes with embedded instruments and universal characteristics that is user friendly [2]. It is usually used as educational platform for training purposes, available in the cloud that can work in 38 different languages.

Whenever we have to choose LMS software, we must carefully compare the mentioned in tables one and three features of comparison. Each of the mentioned LMS may be useful for different purposes, available for different number of users. Usually personalization of services requires 24-hour support and is cloud-based while open source LMS do need installation, manual actualization and may be maintained with small budget.

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