

INFORMATION TECHNOLOGIES FOR ONLINE EDUCATION: COMPARISON OF EXPERIENCES

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Contemporary problems in education caused by threats of mass coronavirus infection needs to be solved with use of special tools for distant teaching, which are offered by different developers from information technologies area. The purpose of this paper is to compare peculiarities of such online education systems as MOODLE, MS Office 365, Prometheus, Google-application, Coursera, and others. The tools proposed by online resources can be divided on two groups: sources with certain applications that can be used with education purposes and all-in-one education systems. Shortly about some of them.

The first group includes Office 365 and Google-apps. The second can be presented by MOODLE, Coursera, Prometheus.

Office 365 is a product, which provides cloud service with famous applications of Microsoft Office such as Excel, Power Point, Word, Access. It is a wide complex of professional programs used for various tasks and education apps are the only part of them. This part supports online team-working, video conference mode, creation and sharing presentations, working with forms, which can be used for tests, and other tools for teaching and working needs.

Google is the multifunctional system that covers information searching, calculating, remote storage, document creation, data analysis and other useful approaches. It appeared first as a research project and developed by two scientists Larry Page and Sergey Brin. Such Google applications as Meet, Classroom, Forms, Jam board and others are used successfully for education tasks and they are the part of huge box of programs that is aimed to do various things. Google works independently on operational system.

MOODLE that is the abbreviation from Modular Object-Oriented Distance Learning Environment was created as free learning management system by Martin Dougiamas. This is an open source that is supported by numerous other developers and can be installed on Windows and Linux. It uses SQL data bases and helps teachers to organize their teaching process effectively.

Prometheus is Ukrainian education system that is based on the international open-EdX platform. It was launched by Ivan Primachenko as mass open online courses. It has well-organized structure of subjects and is being continuously filled by teachers-volunteers from universities, schools, members of private business and government organizations. It is supported by charity donations from different people.

What are the peculiarities in their functions?

First, distant teaching is the most convenient technology that can be used not only in urgent conditions like nowadays quarantine situation, but also in everyday

study process for students, teachers, and conventional people. It can be implemented as additional part to auditorium education. It helps students to fulfill gaps in knowledge if they miss few lectures or try to repeat and recall information that they have studied before or learn something new on their own.

The second noticed advantage is that every system uses remote data storage where teachers, who are authors of educational courses, can place their intelligent products in files of different formats like video, texts, audio, pictures. Such information can be stored as site files, catalog on the servers, GoogleDrive, OneDrive, YouTube or wherever it can be easily accessible by reference for students. Next peculiarity is usability of course structure. The principles of its organization in one system can differ from others, but each of them lets download lectures and solved practical tasks from both teacher and student sides. All mentioned education systems give possibility for both parts of participants to express opinion, ask the questions and get the answers. They can do it on special forums, video conferences or web-seminars.

The tools to create lists of supposed listeners or students are different. It can be done by administrator in MS Office 365, in Google, and in MOODLE. They can be invited on course attendance by email with use of timetable in calendar or by teacher personally. People who register on favorite courses in Prometheus do it on their own desire. In each system users must be signed up and this gives them the opportunity to follow up news and changings in education process visiting own personal cabinet.

Ukrainian universities choose the education system for own demands, according to their technical abilities and software support. For instance, Oles Honchar Dnipro National University practices Office 365 applications and gives lectures online and like Dnipro State Agrarian and Economic University works with learning module system MOODLE; National University of "Kyiv-Mohyla Academy" uses Office 365, has own educational platform DistEdu and collaborates with Prometheus; Lviv Polytechnic National University uses MOODLE and their teachers create courses for students on Prometheus; Kherson State Agrarian University tries MOODLE; Poltava State Agrarian Academy above MOODLE has an experience with MyEnglishLab to learn foreign language; National Technical University of Ukraine "Igor Sikorsky Kyiv Polytechnic Institute" besides MOODLE has experience in creation and developing mass online courses on Prometheus. Some of Ukrainian universities like V. N. Karazin Kharkiv National University, National University of "Kyiv-Mohyla Academy", National Technical University of Ukraine "Igor Sikorsky Kyiv Polytechnic Institute" invited and signed up their students on international platform Courser at that they have official agreement with and that offers courses by teachers from

universities all over the world.

Mixing online approaches in education leads to widening experience and collaboration between tutors of different universities. Ukrainian students have got the opportunity to combine their auditorium and online studying. The Internet technologies gave people chance to learn any subject in own country anywhere abroad without necessity to go outside and staying at home.