

NETWORK SERVICES THAT ALLOW DEVELOPMENT OF PROFESSIONAL COMPETENCE IN STUDENTS BASED ON CLOUD TECHNOLOGIES

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ABSTRACT	KEYWORDS
In this work, network services that allow the development of professional competence of students are considered.	Information, cloud technology, cloud service, education, network services.

Introduction

One of the actively developing directions of modern information and communication technologies is cloud computing technology, which has a wide range of didactic capabilities, contributes to the achievement of planned educational results, helps to form cognitive needs, analytical skills, increases student motivation, cognitive activity of learners, research and creates conditions for implementation of new types of educational activities that allow to stimulate project skills, develop general intellectual skills.

Cloud technologies provide a wide range of educational services for the scientific and creative activities of all participants of the educational process. Using cloud technologies, students had the opportunity to receive modern education that meets new technologies and standards. Taking into account the needs of the education system in general, cloud-based network services can be divided according to the types of activities: cloud-based network services, which are used in classes, extracurricular activities and independent work. Based on the needs of the education system in general, it is appropriate to highlight the educational and practical tasks that can be solved with the help of network services based on cloud technologies. The specified tasks are listed in the table with the availability of network services based on cloud technologies.

Table 1 Practical tasks and cloud services

No	Practical tasks	Used cloud services
1	Using cloud operating systems and virtual desktops to organize an individual learning space	Google Chrome OS, CloudTop, Joli Cloud, Cloudo, xOS, Zim Desk, ZeroPC
2	Use of data storage and sharing services for collective or individual use of educational materials	Yandeks Disk, Google Disk, Dropbox, OneDrive, Box, Oblako Mail.ru
3	Sharing office and office spreadsheets, including word and spreadsheet editors, for visualizing learning materials and independent work results	Google Document, Office Online, Zoho Office
4	Use of multimedia presentation services to present educational materials	SlideRocket, Prezi.com, Slideshark, Slides

5	Using graphic editors to visualize data and create models	Raster grafikasi - Google, Pixlr, SumoPaint. Vektorli grafikalar -Janvas, SVG-edit. 3D grafikalar -Autodesk Tinkercad, AutoCAD 360
6	Using database management systems to create and modify databases	Zoho Creator, MyTaskHelper, DoMyAppgFlow, Intuit Quick Base, Caspio Bridge, Amazon RDS
7	Use and create collaborative classroom and community sites to host learning materials	Google Sayti, Zoho Wiki, Zoho Sites
8	Using cloud technologies in antivirus protection to study the main functions of cloud-based antivirus software to ensure information security	PrevX, Immundet, Panda Cloud Antivirus
9	Teaching the fundamentals of programming the use of cloud services and their functionality, as well as organizing an exchange in the development of programs	Cloud9, Ideone
10	Using platforms to host and host e-learning resources and learning materials	Microsoft Azure, Google App Engine, Amazon Elastic Compute Cloud
11	Use services to create, store and share notes to present reports, design projects and work with other educational materials	Simplenote, Remember The Milk, Springpad, Evernote, Google Keep, OneNote Online
12	Using cloud services to organize and conduct electronic tests	Google Formi, Oprosi (v Office Online)

The state educational standard of general education includes requirements for the introduction of extracurricular activities of students as an important component of the educational content. Therefore, based on the requirements of the new generation state education standard, it is appropriate to consider the possibilities of network services based on cloud technologies in relation to extracurricular activities of learners. Table 2 shows the possibilities of using cloud services in extracurricular activities.

Table 2 Opportunities to use cloud services for extracurricular activities

№	Cloud service name	Why is it used?
1	Google Calendar App, Google Groups, OneNoteOnline, Microsoft Online Calendar, Zoho Calendar, Zoho Planner	Alerting parents, students and other potential participants in extracurricular activities. Calendars for students, parents, and other educators that outline the dates and topics of classes, field trips, parent-teacher conferences, and other possible events.
2	Storage services, Yandex Disk, Google Disk, Dropbox, OneDrive, Box, Oblako Mail.ru.	Storage of video and photo materials from extracurricular activities
3	Communication services: Logger, Twitter, Google Groups social networks	Create a controlled opportunity to share memories of past events
4	Note services: Evernote, Simplenote, Remember The Milk, Springpad, Evernote, Google Keep, OneNote Online.	To quickly place the received information (services allow you to place not only text, but also photos, video materials and audio recordings in one file)

Cloud network services are also indispensable as an assistant in monitoring student knowledge. Monitoring the knowledge and skills of learners is one of the main components of the educational process and is the only didactic and methodical system for checking educational activity. Control

allows to assess the actual level of knowledge of learners and the dynamics of learning the learning material, and to identify gaps in their knowledge, based on which it is possible to draw appropriate conclusions about the characteristics of the training and make corrections..

Analyzing the possible solutions to increase the efficiency of the educational institution and control the educational activities of students, it is necessary to pay special attention to its official organization tools using modern information and communication technologies. Taking into account the specific features of the used forms of monitoring the educational process, in accordance with the requirements for its effective implementation in the educational environment, network services based on cloud technologies are suitable, with the help of which not only the knowledge and skills of learners can be monitored, but also teachers' time is saved by their work can be significantly optimized.

As a result of using network services based on cloud technologies, students' cognitive interest is stimulated, learning motivation increases, independent work efficiency increases, all this allows for individualization and differentiation of the educational process, and more rational integration.

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